Response to Comments on the 2016 Proposed Rule Amending EPA's Risk Management Program Regulations (March 14, 2016; 81 FR 13637)

Docket Number EPA-HQ-OEM-2015-0725
U.S. Environmental Protection Agency
Office of Emergency Management
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Acronyms

ACC	American Chemistry Council
AIChE	American Institute of Chemical Engineers
ALARP	As low as reasonably practical
AN	Ammonium nitrate
BLS	U.S. Bureau of Labor Statistics
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CalARP	California Accidental Release Prevention Program
CBI	Confidential business information
CCHS	Contra Costa Health Services
CCPS	Center for Chemical Process Safety
CFATS	Chemical Facility Anti-Terrorism Standards
CFR	Code of Federal Regulations
CIIA	Critical Infrastructure Information Act
CSB	U.S. Chemical Safety and Hazard Investigation Board
CSISSFRRA	Chemical Safety Information, Site Security and Fuels Regulatory Relief Act of 1999
DHS	U.S. Department of Homeland Security
DOL	U.S. Department of Labor
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FBI	Federal Bureau of Investigation
FDA	U.S. Food and Drug Administration
FGAN	Fertilizer grade ammonium nitrate
FOIA	Freedom of Information Act
GDC	Clean Air Act General Duty Clause
GHS	UN Globally Harmonized System of Classification and Labelling of Chemicals
HAZOP	Hazard and Operability Study
ICC	International Code Council
ICF	ICF International
ICR	Information Collection Request
INPO	Institute of Nuclear Power Operations
IRFA	Initial Regulatory Flexibility Assessment
ISD	Inherently safer design
ISO	Industrial safety ordinance
ISS	Inherently safer systems
ISSA	Inherently safer systems analysis
IST	Inherently safer technology
LEPC	Local emergency planning committee
LOPA	Layer of protection analysis

LPG	Liquefied petroleum gas
MIC	Methyl isocyanate
MOC	Management of change
NAICS	North American Industrial Classification System
NAS	National Academy of Sciences
NASTTPO	National Association of SARA Title III Program Officials
NFPA	National Fire Protection Association
NJDEP	New Jersey Department of Environmental Protection
NPRM	Notice of proposed rulemaking
NRC	National Response Center
OCA	Offsite consequence analysis
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
PE	Professional Engineer
PHA	Process hazard analysis
PHMSA	Pipeline and Hazardous Materials Safety Administration
PSM	Process safety management
RAGAGEP	Recognized and generally accepted good engineering practices
RCRA	Resource Conservation and Recovery Act
RFI	Request for information
RIA	Regulatory impact analysis
RMP	Risk Management Program
SBA	U.S. Small Business Administration
SBAR	Small Business Advocacy Review
SBREFA	The Small Business Regulatory Enforcement Fairness Act
SDS	Safety data sheet
SEC	U.S. Securities and Exchange Commission
SEMS	Safety and Environmental Management Systems
SER	Small Entity Representative
STAA	Safer technology and alternatives analysis
TCPA	New Jersey Toxic Catastrophe Prevention Act
U.S.C.	United States Code
UST	Underground storage tank
VPP	Voluntary Protection Programs

Introduction

This document, together with the preamble to the final rule on amendments to the Risk Management Program (RMP) regulations, presents the responses of the Environmental Protection Agency (EPA) to some of the public comments received on the RMP notice of proposed rulemaking (NPRM) (81 FR 13638).

EPA received a total of 61,555 public comments on the proposed rule. Of these, approximately 61,306 comments were letters and signatures associated with mass mail campaigns. The remaining comments include 235 submissions with unique content, 10 duplicate submissions, and 4 non-germane submissions. In addition to these public submissions, EPA also received 8 written comments and had 22 members of the public provide verbal comments at a public hearing on March 29, 2016. Among the unique submissions, EPA received comments from industry trade organizations, facilities, advocacy groups, state and local regulatory agencies, professional organizations, individual industry professionals, elected officials, and private citizens. Following this introduction, Table 1, Index of Comment Submissions Sorted by Submission Number, identifies the commenter name and the comment number for the unique comment submissions summarized in this summary. The submissions included in this index reflect all unique submissions and a representative copy of each mass mail campaign form letter.

The purpose of this document is to provide a comprehensive summary of all arguments provided by commenters in response to the NPRM. However, it should not be assumed that the submission number references provided throughout the summary reflect an exhaustive list of commenters making each specific argument. Rather, the submission number references reflect example commenters providing the more detailed versions of each argument.

The responses presented in this document are intended to augment the responses to comments that appear in the preamble to the final rule and to address comments not discussed in the preamble to the final rule. Although portions of the preamble to the final rule are paraphrased in this RTC document, to the extent such paraphrasing introduces any confusion or apparent inconsistency, the preamble itself remains the definitive statement of the rationale for the revisions to the standards adopted in the final rule. This document, together with the preamble to the RMP final rule and related technical support documents, should be considered collectively as EPA's response to all of the significant comments submitted on EPA's 2016 RMP proposal.

Table 1. Index of Comment Submissions Sorted by Submission Number

Comments marked with an asterisk "*" represent form letter campaigns. The submissions listed at the end of the index with references to "TRANS-XX" reflect portions of the public transcript from the RMP public hearing held on March 29, 2016.

Submission Number	Commenter Name
EPA-HQ-OEM-2015-0725-0288	American Chemistry Council (ACC), William J. Erny
EPA-HQ-OEM-2015-0725-0289	American Coke and Coal Chemicals Institute (ACCCI), David C. Ailor
EPA-HQ-OEM-2015-0725-0290	National Oilseed Processors Association (NOPA), David C. Ailor
EPA-HQ-OEM-2015-0725-0291	The Chlorine Institute (CI), Robyn Brooks
EPA-HQ-OEM-2015-0725-0292	Anonymous
EPA-HQ-OEM-2015-0725-0295	Chemical Safety Advocacy Group (CSAG), Shannon S. Broome
EPA-HQ-OEM-2015-0725-0296	WV Chamber of Commerce, Kathy G. Beckett
EPA-HQ-OEM-2015-0725-0297	L. Kowalski
EPA-HQ-OEM-2015-0725-0298	Chemical Safety Advocacy Group (CSAG), Shannon S. Broome
EPA-HQ-OEM-2015-0725-0299	American Coatings Association (ACA), Javaneh Nekoomaram
EPA-HQ-OEM-2015-0725-0300	American Petroleum Institute (API), Ron Chittim
EPA-HQ-OEM-2015-0725-0301	Marathon Petroleum Company LP (MPC), Keith Robson
EPA-HQ-OEM-2015-0725-0303	National Association of Manufacturers (NAM), Ross Eisenberg
EPA-HQ-OEM-2015-0725-0304	International Liquid Terminals Association (ILTA), Peter Lidiak
EPA-HQ-OEM-2015-0725-0305	Agricultural Retailers Association (ARA), Richard D. Gupton
EPA-HQ-OEM-2015-0725-0306	National Association of Chemical Distributors (NACD), Jennifer C. Gibson
EPA-HQ-OEM-2015-0725-0307	American Water Works Association (AWWA), G. Tracy Mehan, III
EPA-HQ-OEM-2015-0725-0308	The Fertilizer Institute (TFI), Andrew T. O'Hare
EPA-HQ-OEM-2015-0725-0309	Corn Refiners Association, Daniel L. Chartier
EPA-HQ-OEM-2015-0725-0310	U. S. Chamber of Commerce, Ann M. Beauchesne

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EPA-HQ-OEM-2015-0725-0312	American Fuel & Petrochemical Manufacturers (AFPM), Lara Swett
EPA-HQ-OEM-2015-0725-0313*	West Virginia Society of Professional Engineers (WVSPE), Chris Butler
EPA-HQ-OEM-2015-0725-0314	R. Engler
EPA-HQ-OEM-2015-0725-0315	Honoré, et al.
EPA-HQ-OEM-2015-0725-0316	Pennsylvania Society of Professional Engineers (PSPE), John D. Wanner
EPA-HQ-OEM-2015-0725-0328	Virginia Society of Professional Engineers (VSPE), Thomas G. Conway
EPA-HQ-OEM-2015-0725-0329	R. Solomon
EPA-HQ-OEM-2015-0725-0331	Professional Engineers of Oregon (PEO), David Bassett
EPA-HQ-OEM-2015-0725-0332	The Dow Company, Kevin M. Kolevar
EPA-HQ-OEM-2015-0725-0333	Environmental Justice Health Alliance (EJHA), Michele Roberts
EPA-HQ-OEM-2015-0725-0334	P. Orum
EPA-HQ-OEM-2015-0725-0335	The Auditing Roundtable, Peter Montagna
EPA-HQ-OEM-2015-0725-0336	Eastman Chemical Company, Peter Lodal
EPA-HQ-OEM-2015-0725-0337	American Forest and Paper Association (AFPA), Timothy Hunt
EPA-HQ-OEM-2015-0725-0338	Greenpeace, Rick Hind
EPA-HQ-OEM-2015-0725-0339	U.S. Chamber of Commerce, Matthew J. Eggers
EPA-HQ-OEM-2015-0725-0340	Chlorum Solutions, Daniel Croce
EPA-HQ-OEM-2015-0725-0341	C. Laieski
EPA-HQ-OEM-2015-0725-0344	Kansas Society of Professional Engineers (KSPE), Adam Stodola
EPA-HQ-OEM-2015-0725-0345	J. Gunter
EPA-HQ-OEM-2015-0725-0346	M. Rauch
EPA-HQ-OEM-2015-0725-0347	J. Mintz
EPA-HQ-OEM-2015-0725-0348	R. Grover
EPA-HQ-OEM-2015-0725-0352	C. Rutter
EPA-HQ-OEM-2015-0725-0357	L. Benner Jr.
EPA-HQ-OEM-2015-0725-0358	American Fuel & Petrochemical Manufacturers (AFPM), Lara Swett
EPA-HQ-OEM-2015-0725-0360	Public Employees for Environmental Responsibility (PEER), Jeff Ruch

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EPA-HQ-OEM-2015-0725-0361	Texas Pipeline Association (TPA), Thure Cannon
EPA-HQ-OEM-2015-0725-0362	The Vinyl Institute, Richard P. Krock
EPA-HQ-OEM-2015-0725-0363	Chemical Safety Advocacy Group (CSAG), Shannon S. Broome
EPA-HQ-OEM-2015-0725-0364	American Chemistry Council (ACC), William Erny
EPA-HQ-OEM-2015-0725-0368	American Water Works Association (AWWA), G. Tracy Mehan, III
EPA-HQ-OEM-2015-0725-0370	W. Pike
EPA-HQ-OEM-2015-0725-0371*	Ronald Sverdlove
EPA-HQ-OEM-2015-0725-0373	E. Lyon
EPA-HQ-OEM-2015-0725-0374	J. Mack
EPA-HQ-OEM-2015-0725-0377	C. Liddell
EPA-HQ-OEM-2015-0725-0384	L. Vasquez
EPA-HQ-OEM-2015-0725-0387	A. Marderosian
EPA-HQ-OEM-2015-0725-0394	J. Steitz
EPA-HQ-OEM-2015-0725-0397	A. Alkon
EPA-HQ-OEM-2015-0725-0403	Anonymous
EPA-HQ-OEM-2015-0725-0404	International Dairy Foods Association (IDFA), Emily Lyons
EPA-HQ-OEM-2015-0725-0406	New Jersey Department of Environmental Protection (NJDEP), Ical Atay
EPA-HQ-OEM-2015-0725-0407	Arkansas Environmental Federation (AEF), Charles Miller
EPA-HQ-OEM-2015-0725-0408	Anonymous
EPA-HQ-OEM-2015-0725-0410	Eileen Smith
EPA-HQ-OEM-2015-0725-0411	System Improvements Inc., Mark Paradies
EPA-HQ-OEM-2015-0725-0412	Anonymous
EPA-HQ-OEM-2015-0725-0413	Anonymous
EPA-HQ-OEM-2015-0725-0414	Emily Shue
EPA-HQ-OEM-2015-0725-0415	Anonymous
EPA-HQ-OEM-2015-0725-0416	RAND Corp., Dan Gonzales
EPA-HQ-OEM-2015-0725-0417	The Hazardous Materials Committee of the North Carolina State Emergency Response Commission
EPA-HQ-OEM-2015-0725-0418	The Auditing Roundtable and BEAC

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EPA-HQ-OEM-2015-0725-0421	The Ethylene Oxide Sterilization Association, Inc. (EOSA), Jake Vandevort
EPA-HQ-OEM-2015-0725-0423	MunicipalH2O, Gregory Rogers CSP
EPA-HQ-OEM-2015-0725-0424	John Kelly
EPA-HQ-OEM-2015-0725-0427	Matt Frankel
EPA-HQ-OEM-2015-0725-0428	U. S. Chemical Safety and Hazard Investigation Board (CSB), Vanessa Sutherland
EPA-HQ-OEM-2015-0725-0430	Anonymous
EPA-HQ-OEM-2015-0725-0432	The United States Conference of Mayors, National Association of Counties (NACo) and National League of Cities, Tom Cochran
EPA-HQ-OEM-2015-0725-0433	State of Louisiana Department of Justice, Jeff Landry
EPA-HQ-OEM-2015-0725-0434	Walter Mintkeski
EPA-HQ-OEM-2015-0725-0435	Dominion Resource Services, Inc. (Dominion), Pamela Faggert
EPA-HQ-OEM-2015-0725-0437	United States House of Representatives, Fred Upton et al.
EPA-HQ-OEM-2015-0725-0439	Black Hawk County, Iowa, John Miller
EPA-HQ-OEM-2015-0725-0440	California League of Food Processors (CLFP), Rob Neenan
EPA-HQ-OEM-2015-0725-0441	Risk Integrity Safety Knowledge, Inc. (RISK, Inc.)
EPA-HQ-OEM-2015-0725-0442	Kazarians & Associates, Inc.
EPA-HQ-OEM-2015-0725-0443	Michael Dossey
EPA-HQ-OEM-2015-0725-0445	American Institute of Chemical Engineers (AIChE) and Center for Chemical Process Safety (CCPS), Shakeel Kadri
EPA-HQ-OEM-2015-0725-0446	South Carolina Department of Health and Environmental Control (DHEC), Rhonda Thompson, PE
EPA-HQ-OEM-2015-0725-0447	Genesis, Steven Briley, P.E.
EPA-HQ-OEM-2015-0725-0448	Anonymous
EPA-HQ-OEM-2015-0725-0449	Anonymous
EPA-HQ-OEM-2015-0725-0450	Contra Costa Health Services (CCHS), Randall Sawyer
EPA-HQ-OEM-2015-0725-0451	Anonymous
EPA-HQ-OEM-2015-0725-0452	Oklahoma Hazardous Materials Emergency Response Commission (OHMERC)

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EPA-HQ-OEM-2015-0725-0453	Stanislaus County Hazardous Material Division (SCHMD) Department of Environmental Resources, Beronia Beniamine
EPA-HQ-OEM-2015-0725-0454	Anonymous
EPA-HQ-OEM-2015-0725-0455	Anonymous
EPA-HQ-OEM-2015-0725-0456	Jane Affonso
EPA-HQ-OEM-2015-0725-0457	Eight U.S. Senators
EPA-HQ-OEM-2015-0725-0458	Kansas Cooperative Council (KCC) et al., Leslie Kaufman
EPA-HQ-OEM-2015-0725-0459	Ludwig Benner
EPA-HQ-OEM-2015-0725-0461	Countrymark Cooperative Holding Corporation (Countrymark), Brian Thompson
EPA-HQ-OEM-2015-0725-0462	Small Business Refiners (SBRs)
EPA-HQ-OEM-2015-0725-0463	Louisiana Mid-Continent Oil and Gas Association (LMOGA), Richard Metcalf
EPA-HQ-OEM-2015-0725-0464	SCE&G Company, Inc. (SCE&G)
EPA-HQ-OEM-2015-0725-0465	Geosyntec Consultants, Inc., Sandra Owens
EPA-HQ-OEM-2015-0725-0466	Texas Association of Manufacturers (TAM), Christina Wisdom
EPA-HQ-OEM-2015-0725-0467	Center for Science and Democracy at the Union of Concerned Scientists (CSD)
EPA-HQ-OEM-2015-0725-0468	Anonymous
EPA-HQ-OEM-2015-0725-0469	Eastman Chemical Company, Wayne Garland
EPA-HQ-OEM-2015-0725-0470	NJ Work Environment Council (WEC), Debra McFadden
EPA-HQ-OEM-2015-0725-0471*	Earthjustice, Zarah Patriana
EPA-HQ-OEM-2015-0725-0472	Jan
EPA-HQ-OEM-2015-0725-0473	North Dakota Department of Agriculture, Doug Goehring
EPA-HQ-OEM-2015-0725-0474	James Hadley
EPA-HQ-OEM-2015-0725-0475	Cleco Corporation, Bill Matthews
EPA-HQ-OEM-2015-0725-0476	American Coatings Association (ACA), Javaneh Nekoomaram
EPA-HQ-OEM-2015-0725-0477	The Auditing Roundtable and The board of Environmental, Health and Safety Auditor Certifications, Bill Qualls
EPA-HQ-OEM-2015-0725-0478	Anonymous

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EPA-HQ-OEM-2015-0725-0479	Department of Defense - Clean Air Act Services Steering Committee, Karnig Ohannessian
EPA-HQ-OEM-2015-0725-0480*	Anonymous
EPA-HQ-OEM-2015-0725-0481	Institute of Internal Auditors (IIA), Richard
EPA-HQ-OEM-2015-0725-0482	PCS Phosphate Company, Inc., PCS Nitrogen Fertilizer, L.P. and Company Affiliates, Judith George
EPA-HQ-OEM-2015-0725-0483	FirstEnergy Corp., Donald Hromulak
EPA-HQ-OEM-2015-0725-0484	PowerSouth Energy Cooperative
EPA-HQ-OEM-2015-0725-0485	Tesoro Companies, Inc. (Teroso), Joseph Bookout
EPA-HQ-OEM-2015-0725-0486	Tesoro Logistics LP (TLLP), Joseph Bookout
EPA-HQ-OEM-2015-0725-0487	Salt River Project Agricultural Improvement and Power District (SRP), Kara Montalvo
EPA-HQ-OEM-2015-0725-0488	Christopher Lish
EPA-HQ-OEM-2015-0725-0489	Dow Chemical Company (Dow), Cathy Mapes
EPA-HQ-OEM-2015-0725-0490	Oklahoma Department of Environmental Quality (DEQ), Scott Thompson
EPA-HQ-OEM-2015-0725-0491	Chemical Industry Council of Illinois (CICI), Lisa Frede
EPA-HQ-OEM-2015-0725-0492	Enterprise Products, LLP (Enterprise Products), Douglas D'Aquila
EPA-HQ-OEM-2015-0725-0493	Council of Industrial Boiler Owners (CIBO), Robert Bessette
EPA-HQ-OEM-2015-0725-0494	Corporate Environmental Enforcement Council, Inc. (CEEC), John Flatley
EPA-HQ-OEM-2015-0725-0495	Louisiana Chemical Association (LCA), Dan Borne'
EPA-HQ-OEM-2015-0725-0496	American Bakers Association (ABA), Rasma Zvaners
EPA-HQ-OEM-2015-0725-0497	United States Steel Corporation (U. S. Steel), Michael Dzurinko
EPA-HQ-OEM-2015-0725-0500	National Propane Gas Association (NPGA), Sarah Reboli
EPA-HQ-OEM-2015-0725-0502	U.S. Small Business Administration (SBA), Tayyaba Waqar
EPA-HQ-OEM-2015-0725-0504	Tennessee Valley Authority (TVA), Brenda Brickhouse
EPA-HQ-OEM-2015-0725-0506*	Sustainable Business Network of Greater Philadelphia, Saleem Chapman

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EPA-HQ-OEM-2015-0725-0507	BlueGreen Alliance, Lee Anderson
EPA-HQ-OEM-2015-0725-0508	nrg, Maria Race
EPA-HQ-OEM-2015-0725-0510	National Association of SARA Title III Program Officials (NASTTPO), Timothy Gablehouse
EPA-HQ-OEM-2015-0725-0512	Interstate Natural Gas Association of America , Terry Boss
EPA-HQ-OEM-2015-0725-0515	Naturepedic, Barry Cik
EPA-HQ-OEM-2015-0725-0516	Chlorum Solutions, Daniel Croce
EPA-HQ-OEM-2015-0725-0517	The Chlorine Institute, Robyn Brooks
EPA-HQ-OEM-2015-0725-0518	Christine Whitman
EPA-HQ-OEM-2015-0725-0519	United Steelworkers, Holly Hart
EPA-HQ-OEM-2015-0725-0521	IIAR, GCCA, AFFI, IARW, NAMI, RETA, USPOULTRY, Lowell Randel
EPA-HQ-OEM-2015-0725-0522	Covestro LLC, Janet Mostowy
EPA-HQ-OEM-2015-0725-0523	Occidental Chemical Corporation OxyChem®, David Lewis
EPA-HQ-OEM-2015-0725-0524	Utility Solid Waste Activities Group (USWAG), James Roewer
EPA-HQ-OEM-2015-0725-0525	Anonymous
EPA-HQ-OEM-2015-0725-0526	Arkema Inc., Susan Lee-Martin
EPA-HQ-OEM-2015-0725-0527	National Association of Chemical Distributors (NACD), Jennifer Gibson
EPA-HQ-OEM-2015-0725-0528	GPA Midstream Association, Johnny Dreyer
EPA-HQ-OEM-2015-0725-0529	Texas Pipeline Association (TPA), Thure Cannon
EPA-HQ-OEM-2015-0725-0530	New York City Department of Environmental Protection (DEP), Paul Rush
EPA-HQ-OEM-2015-0725-0531	HWRT Oil Company, LLC
EPA-HQ-OEM-2015-0725-0532	Texas A & M Engineering Experiment Station (TEES), Mary O'Connor
EPA-HQ-OEM-2015-0725-0533	National Fire Protection Association (NFPA), Gregory Cade
EPA-HQ-OEM-2015-0725-0534	Specialty Graphic Imaging Association (SGIA), Marcia Kinter
EPA-HQ-OEM-2015-0725-0535	Tampa Electric Company (TEC), Byron Burrows
EPA-HQ-OEM-2015-0725-0536	American Petroleum Institute (API), Ron Chittim
EPA-HQ-OEM-2015-0725-0537	American Chemistry Council (ACC), William Erny

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EPA-HQ-OEM-2015-0725-0538	Southern Company, Larry Monroe
EPA-HQ-OEM-2015-0725-0539	Fred Millar
EPA-HQ-OEM-2015-0725-0541	Colorado Emergency Planning Committee, Dave Hard
EPA-HQ-OEM-2015-0725-0542	AK Steel Corporation, Katie Kistler
EPA-HQ-OEM-2015-0725-0543	Center for Health, Environemnt & Justice, Stephen Lester
EPA-HQ-OEM-2015-0725-0544	International Dairy Foods Association, William Loux
EPA-HQ-OEM-2015-0725-0545	Certified Unified Program Agencies (CUPA) Form, Randall Sawyer
EPA-HQ-OEM-2015-0725-0546	County Executives of America, Michael Griffin
EPA-HQ-OEM-2015-0725-0548	Jefferson County LEPC, Timothy Gablehouse
EPA-HQ-OEM-2015-0725-0549	Marathon Petroleum Company, James Wilkins
EPA-HQ-OEM-2015-0725-0550	NOPA and CRA, Mark Dreux
EPA-HQ-OEM-2015-0725-0551	American Forest & Paper Association, Stewart Holm
EPA-HQ-OEM-2015-0725-0552	Anadarko Petroleum Corporation, David McBride
EPA-HQ-OEM-2015-0725-0553	The U.S. Conference of Mayors/National League of Cities/National Association of Counties, Judy Sheahan
EPA-HQ-OEM-2015-0725-0554	American Water Works Association, G. Tracy Mehan III.
EPA-HQ-OEM-2015-0725-0555	The Society of Chemical Manufacturers and Affiliates (SOCMA), Daniel Moss
EPA-HQ-OEM-2015-0725-0556	Institute of Makers of Explosives (IME), Susan Flanagan
EPA-HQ-OEM-2015-0725-0557	The Ethylene Oxide Sterilization Association, Inc., Jake Vandevort
EPA-HQ-OEM-2015-0725-0558	Association of Metropolitan Water Agencies, Diane VanDe Hei
EPA-HQ-OEM-2015-0725-0559	American Forest Paper Association, American Iron and Steel Institute, International Liquid Terminals Association, National Association of Manufacturers, and the U.S. Chamber of Commerce, Joel Visser
EPA-HQ-OEM-2015-0725-0560	Olin Corporation
EPA-HQ-OEM-2015-0725-0561	International Fragrance Association, North America, Suzanne B. Hartigan

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EPA-HQ-OEM-2015-0725-0562*	Baker Botts L.L.P. , Debra Jezouit
EPA-HQ-OEM-2015-0725-0564	Anonymous
EPA-HQ-OEM-2015-0725-0565	International Liquid Terminals Association, Peter Lidiak
EPA-HQ-OEM-2015-0725-0566	The Environmental Technology Council, David Case
EPA-HQ-OEM-2015-0725-0567	Texas Chemical Council, Martha Landwehr
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EPA-HQ-OEM-2015-0725-0570	Western Refining, Inc., Mark Smith
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EPA-HQ-OEM-2015-0725-0572	Certified Unified Program Agencies (CUPA) Forum, Randall Sawyer
EPA-HQ-OEM-2015-0725-0573	Northern Tier Energy LP, Dave Lamp
EPA-HQ-OEM-2015-0725-0574*	Environmental Justice Health Alliance, Michele Roberts
EPA-HQ-OEM-2015-0725-0575*	Coalition to Prevent Chemical Disasters, Monique Harden
EPA-HQ-OEM-2015-0725-0576*	Sierra Club
EPA-HQ-OEM-2015-0725-0577*	Public Citizen Texas , Susan Harley
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EPA-HQ-OEM-2015-0725-0579	American Fuel & Petrochemical Manufacturers, Lara Swett
EPA-HQ-OEM-2015-0725-0580	American Fuel & Petrochemical Manufacturers, Lara Swett
EPA-HQ-OEM-2015-0725-0581	The Vinyl Institute, Richard Krock
EPA-HQ-OEM-2015-0725-0582	E.Vironment/SLR International Corporation, James Darnell
EPA-HQ-OEM-2015-0725-0583	Industrial Refrigeration Consortium, The College of Engineering, Univserity of Wisconsin-Madison, Douglas Reindl
EPA-HQ-OEM-2015-0725-0584	The Society of the Plastics Industry, Inc. (SPI), Marie Gargas
EPA-HQ-OEM-2015-0725-0585	Risk Management Professionals, Steven Maher
EPA-HQ-OEM-2015-0725-0586	California Environmental Protection Agency, Gina Solomon
EPA-HQ-OEM-2015-0725-0587	Utility Air Regulatory Group, Makram Jaber
EPA-HQ-OEM-2015-0725-0588	Edison Electric Institute , John Kinsman

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EPA-HQ-OEM-2015-0725-0589	Calpine Corporation , Barbara McBride
EPA-HQ-OEM-2015-0725-0590	Chris DeMott
EPA-HQ-OEM-2015-0725-0591	Anonymous
EPA-HQ-OEM-2015-0725-0592	Cement Kiln Recycling Coalition, Michelle Lusk
EPA-HQ-OEM-2015-0725-0593	LyondellBasell
EPA-HQ-OEM-2015-0725-0594	Chemical Safety Advocacy Group
EPA-HQ-OEM-2015-0725-0595	Allied Universal Corporation, Jim Palmer
EPA-HQ-OEM-2015-0725-0596	Anonymous
EPA-HQ-OEM-2015-0725-0597*	Moms Clean Air Force
EPA-HQ-OEM-2015-0725-0598	The Fertilizer Institute (TFI), Andy O'Hare[1]
EPA-HQ-OEM-2015-0725-0602	Jody James
EPA-HQ-OEM-2015-0725-0603*	U.S. PIRG (Public Interest Research Group), Carli Jensen
TRANS-02	ABS Group, Steve Arendt
TRANS-04	Earth Justice, Jessica Hodge
TRANS-05	American Chemical Council, William Erny
TRANS-06	David Halperin
TRANS-07	U.S. Public Interest Research Group, Jerry Slominski
TRANS-08	American Petroleum Institute, Ron Chittim
TRANS-09	Union of Concerned Scientists, Yogin Kothari
TRANS-10	NACD, Jennifer Gibson
TRANS-11	Global Cold Chain Alliance, Lowell Randel
TRANS-12	Greenpeace, Rick Hind
TRANS-13	U.S. Chamber of Commerce, Matthew Eggers
TRANS-14	American Forest & Paper Association, Tim Hunt
TRANS-15	American Fuel & Petrochemical Manufacturers, Matthew Hodges
TRANS-16	Conn Maciel Carey PLLC, Eric Conn
TRANS-17	Delaware Concerned Residents for Environmental Justice, Stephanie Herron
TRANS-18	The Auditing Roundtable, Peter Montagna
TRANS-19	Environmental Justice Health Alliance, Michele Roberts

[1] TFI also submitted submission EPA-HQ-OEM-0725-0499, which is a duplicate of one of the attachments included in submission EPA-HQ-OEM-0725-0598.

Submission Number	Commenter Name
TRANS-20	Chlorum Solutions, Daniel Croce
TRANS-21	National Association of Manufacturers, Kelly Raymond
TRANS-22	Moms Clean Air Force, Trisha Sheehan
TRANS-23	Paul Orum

1. Legal Issues

1.1. Environmental Protection Agency's authority for taking this action

1.1.1. Proposal exceeds Environmental Protection Agency's statutory authority

Comment: A few commenters, including a facility and an industry trade association, stated that Environmental Protection Agency (EPA) has exceeded its statutory authority by taking the lead on process safety, which the commenters state is a role that Congress delegated to Occupational Safety and Health Administration (OSHA). Furthermore, the commenters assert that the proposal ignores OSHA's primary jurisdiction over workplace safety, which the commenters asserted is established under Section 112(r)(7)(G) of the Clean Air Act (CAA) (0492, 0579).

EPA Response: EPA explained how each of the issues addressed in the rulemaking was linked to provisions of section 112(r)(7) in its proposal. The state government agency identified three examples of issues it believed were beyond EPA's authority – the catastrophic release definition changes, the provision to require third-party audits, and the information sharing provision. We note that EPA is not proceeding with the change to the catastrophic release definition, therefore the question of EPA's authority to do so is moot. With respect to the third-party audit and information sharing comments, we address these in the portions of this Response to Comment document focused on those topics.

The 1990 CAA Amendments required both EPA and OSHA to proceed with provisions to prevent chemical accidents. The Senate Report discusses the relationship and expertise of both agencies in the field of accident prevention, including the issue of whether OSHA should be the lead agency in the area, and noted that "EPA has developed considerable expertise in the area of accident prevention." (Senate Report at 244 -45). The Senate Report provides an extended discussion of the types of accident prevention authorities provided to EPA (see generally Senate Report at 237 – 45), including intrinsic systems designed into processes and extrinsic systems to be retrofitted to processes to prevent releases (Id. at 239). The approach of the bill was to require coordination among agencies rather than primacy or preemption. Sections 129(f)(1) and (2) of the Senate bill closely parallel section 112(r)(7)(A) and (B)(i), and section 129(f)(3) has the same consultation and coordination requirement for EPA with U.S. Department of Labor (DOL) and OSHA as CAA section 112(r)(7)(D). Therefore, the arguments raised by the commenters regarding "primary jurisdiction" and "lead" for OSHA on process safety do not reflect origins of the statutory provisions.

Nothing in the final rule impacts adversely OSHA's ability to regulate workplace safety or asserts "primary jurisdiction over workplace safety." 29 USC 653(b)(1) is a preemption provision that generally bars OSHA from acting on a workplace safety matter when is it is within the jurisdiction of another federal agency ("Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies, and State agencies acting under section 274 of the Atomic Energy Act of 1954, as amended (42 United States Code (U.S.C.) § 2021), exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health."). The provision in section 112(r)(7)(G) simply reflects that EPA, by regulating process safety under section 112(r), does not preempt OSHA's authority also to act. It cannot be

read to work a preemption of EPA's authority to act. EPA is well within its discretion and authority to promulgate the process safety provisions of the final rule.

1.1.2. Safer technology and alternatives analysis

1.1.2.1. Environmental Protection Agency must finalize the safer technology and alternatives requirements to fulfill its obligations under the Clean Air Act

Comment: An environmental advocacy coalition of approximately 140 commenters described the "prevention of accidental releases" purposes of the CAA and argued that EPA must finalize the safer technology and alternatives analysis (STAA) requirement to fulfill the prevention goals of the statute. The commenter stated that the STAA provisions are the only proposed provisions that require action before an accident or non-compliance. Furthermore, the commenter argued that EPA's proposal is incomplete because it fails to apply the STAA provisions to all covered facilities and fails to require the implementing of STAA. The commenter relied on 42 U.S.C. Section 7412(r)(7)(A), 7412(r)(7)(B)(i) and 7412(r)(1) as the basis for EPA's authority to implement these requirements (0575).

EPA Response: EPA is finalizing the STAA requirement for the industries identified in the proposed rule but is not expanding it to cover all facilities. To the extent that these regulations are imposed under subparagraph (B), these regulations have an overriding requirement to be reasonable. While it is true that similar quantities of chemicals under the same conditions present similar hazards regardless of sector, various sectors present different likelihood of release. Some sectors handle chemicals differently under conditions that are more likely to lead to severe releases. The record reflects that the likelihood of severe accidents is greater in the sectors that must conduct a STAA under the final rule. Thus, it is reasonable to have different requirements for these sectors than others. Independent of whether any new inherently safer technology (IST) or inherently safer design (ISD) is adopted, there is a cost to conducting a STAA. EPA is reasonably limiting STAA requirements to sectors that we view as most likely to have more frequent, severe releases and that are most likely to benefit from a STAA. Like subparagraph (B), subparagraph (A) also gives EPA the authority to target its rule provisions to different types, classes, and kinds of facilities. Distinguishing among classes of facilities by accident history and process complexity is a rational exercise of this authority.

While we recognize that other prevention program revisions in the final rule will only apply to sources after they have had an accident, part 68 itself will apply to sources based on threshold quantities of regulated substances in a process at a stationary source; therefore, the bulk of subparts B and C (programs 2 and 3) will apply before an accident or non-compliance. This final rule will simply amend and enhance portions of the basic, broader rule.

Rather than mandate implementation of particular safer technologies alternatives identified by a STAA, EPA relies on sources making rational decisions once presented with STAA studies and selecting prevention approaches that optimize the cost of the measures taken and costs avoided (e.g., liability, operational efficiency, image). Such an approach is similar to the approach to energy assessments recently taken in the major source and area source boiler rules under CAA section 112(d) and affirmed in *U.S. Sugar Corp v. EPA.*

1.1.2.2. Lack of authority to mandate safer technology and alternatives analysis

Comment: A few commenters, including industry trade associations, argued that EPA lacks authority to mandate STAA (0537, 0579). An industry trade association argued that the breadth and nature of the proposed STAA provisions exceeds the authority provided by 42 U.S.C. 112(r)(7)(B)(ii)(I), which the commenter described as stating that EPA's regulations governing risk management plans must include in such plans a "hazard assessment to assess the potential effects of an accidental release of any regulated substance." The commenter stated that Congress spoke with precision in defining the requirement for a hazard assessment in each risk management plan and did not authorize EPA to require a company to evaluate and/or undertake changes in its technology choices or its process design decisions. Furthermore, the commenter stated that the absence of authority to compel an evaluation of alternative technology and process design is also apparent from the legislative history of CAA Section 112(r) (0537). Another industry trade association commented that Congress has repeatedly rebuffed EPA's attempts to amend the CAA to allow it to mandate IST, and also noted that Congress has barred Department of Homeland Security (DHS) from enacting IST (0579).

A few industry trade associations commented that a requirement to perform STAA could effectively result in a ban on the use of certain chemicals, processes, or technologies in a given situation, and argued that Congress did not provide EPA with such authority under Section 112(r)(7) of the CAA (0581, 0584).

An industry trade association commented that EPA should not rely on the arguments provided by Greenpeace in its 2012 petition, which the commenter describes as being in the preamble discussion of the proposed STAA mandate, because EPA does not have the authority described by Greenpeace. Specifically, the commenter asserted that Greenpeace incorrectly describes authority delegated to EPA relating to STAA under the CAA and the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act of 1999 (CSISSFRRA) (0537).

> **EPA Response:** The Agency disagrees with the comments that the CAA does not authorize the STAA provisions of this final rule. Both subparagraphs (A) and (B) of CAA section 112(r)(7) authorize STAA and IST in particular. EPA cited all of paragraph (7) as authority for "[e]ach of the portions of the Risk Management Program rule we propose to modify." 81 FR 13646 (March 14, 2016). The authority section for 40 Code of Federal Regulations (CFR) part 68 references CAA section 112(r) and is not limited to particular paragraphs and subparagraphs. The proposed rule also noted that subparagraph (A) had been invoked in the rulemaking petition on IST. Therefore, EPA provided sufficient notice that we contemplated action under any authority under CAA section 112(r)(7). Nevertheless, we also view our authority to require STAA assessments or an IST review as being consistent with subparagraph (B). Under subparagraph (B), EPA has broad authority to develop "reasonable regulations . . . for the prevention of accidental releases." The reduction in severity of conditions in a process plainly impacts the accidental release conditions and thus the modeling called for in section 112(r)(7)(B)(ii)(I). All EPA is requiring in these amendments is an analysis and not the implementation of STAA, therefore the rule is comfortably within the scope of EPA's authority under the hazard assessment provision (as noted below, the conference report provides further support for this view). Moreover, section 112(r)(7)(B)(ii)(II) specifically mentions that prevention programs in risk management plans shall provide for "safety precautions;" STAA measures could be considered precautions.

Further support for IST can be found in both the Conference Report accompanying the 1990 CAA Amendments and the Senate Report explaining the provisions of the Senate bill that closely mirrors enacted provisions. In discussing the "Hazard Assessments" required by section 112(r)(7)(B), the Conference Report states such assessments "shall include . . . a review of the efficacy of various release prevention and control measures, including process changes or substitution of materials." Conf. Rep. at 340-41. The STAA analysis is such a review. The Senate Report identifies as "release prevention measures" many of the techniques that are now known as IST – substitution of less hazardous materials, reduction in the severity of the conditions of processing and complexity of the process, and decreasing volumes of chemicals in storage. Senate Report at 242. The failure of subsequent Congresses to enact additional legislation on IST does not change what was enacted and what was intended at the time of enactment.

Section 112(r)(7)(B)(iii) provides EPA with the authority to require revisions to risk management plans. Nevertheless, nothing in the final rule will require adoption of any particular measure in an STAA report, even if the measure is considered feasible. EPA places no reliance on the argument that CSISSFRRA changed EPA's authority with respect to requiring STAA.

There are no specific chemicals banned by the final rule. While we recognize that companies have moved away from certain processes, such as those that involve the storage of large quantities of MIC, in order to make facilities safer, we leave process design decisions to the reasonable judgment of owners and operators under this rule.

1.1.3. Emergency response preparedness requirements

Comment: A few commenters, including an association of government agencies and an industry trade association, argued that EPA does not have the authority to specify the requisite level of response communities should maintain, including allowing waivers of state and local laws designating emergency response authorities (0598, 0510). Furthermore, a few industry trade associations argued that EPA also lacks authority to require facilities to accept these responsibilities (0598, 0571). Several commenters questioned whether EPA has the authority to delegate to local emergency planning committees (LEPCs) the responsibility to determine whether facilities are responsible to develop emergency response programs (0489, 0492, 0544, 0554, 0579, 0570, 0573). A facility questioned whether EPA's proposal may constitute an unconstitutional delegation of legislative authority. The commenter stated that for Congress to delegate authority to EPA to create laws, there must be clear, articulable principles by which a court may determine whether EPA is doing what Congress wanted EPA to do. The commenter went on to state that, if EPA is constitutionally able to pass along legislative authority at all to LEPCs, presumably the same concept applies: there must be clear, articulable principles. The commenter concluded that the delegation of authority may be inappropriate because EPA has not stated any principles at all that would bind or limit LEPCs in deciding whether to impose those burdens on a stationary source (0489).

Similarly, a facility and an industry trade association questioned EPA's authority to delegate this authority to LEPCs. The commenters noted that there are provisions in the CAA that expressly grant EPA authority to delegate programs to state and local governments. However, the commenters argue that no such framework exists for EPA to delegate its authority to LEPCs. Furthermore, the commenters stated that by providing LEPCs the power to designate facilities as "responding stationary sources" EPA

is unlawfully delegating out an inherently governmental function. The commenters stated that delegating these functions to groups outside of the executive branch creates serious accountability issues and risks running afoul of the U.S. Constitution (0492).

> **EPA Response:** EPA is not proceeding with the requirements either for owners and operators to assess the response capabilities of the local emergency responders or the provision that would allow the LEPC to require a source to be a responding source. Therefore, the issue of EPA's authority to impose such requirements is no longer raised by our final rule.

1.1.4. Information availability requirements

Comment: An industry trade association and a facility stated that legislation subsequent to the CAA narrowed EPA's authority to mandate public disclosure of RMP information. Relevant legislation described by the commenters includes (1) the 1999 CSISSFRRA, (2) the Critical Infrastructure Information Act (CIIA), (3) The Chemical Facilities Anti-Terrorism Standards Act of 2007, and (4) the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014 (0492, 0579).

Another industry trade association commented that requiring private companies to publish qualitative or quantitative environmental information inappropriately seeks to delegate EPA's own duties to communicate with and deal with public requests to the regulated entity (0512).

> **EPA Response:** The information disclosures that will be required by the final rule are fully consistent with the statutes and regulatory programs identified by the commenters as enacted after the 1990 CAA Amendments. CSISSFRRA specified that portions of RMPs containing offsite consequence analysis (OCA) Information, any electronic data base created from those portions, and any statewide or national ranking derived from such information is subject to restrictions on disclosure (CAA 112(r)(7)(H)(i)(III) and 112(r)(7)(H)(v)). Regulations promulgated jointly by EPA and the Department of Justice further define OCA Information in 40 CFR 1400.2(j). The final rule will not require disclosure of release scenarios or rankings based on such scenarios, nor will it make available any information based on such scenarios. The CIIA restricts information "not customarily in the public domain." Chemical Facility Anti-Terrorism Standards (CFATS) creates a category of information, Chemical-terrorism Vulnerability Information (CVI), which further restricts certain information generated to implement CFATS (see 6 CFR 27.400). In promulgating CFATS, DHS announced its intent to preserve Federal release disclosure, emergency planning, and accident prevention statutes, including the Emergency Planning and Community Right-to-Know Act (EPCRA) and CAA 112(r) (72 Fed. Reg. 17714, April 9, 2007). In this final rule, EPA will not promulgate the new mandatory disclosure of STAA and incident investigation information that we had proposed, thereby eliminating the tension between these after-enacted programs and modernization of the RMP. The information required to be disclosed by this rule will largely draw on information otherwise in the public domain and simplify the public's access to it.
>
> This final rule will require an owner or operator of a stationary source to alert the public, via any one of a wide variety of methods, of how to access information about the source that is publicly available. Other statutes and regulatory programs, or other provisions of the RMP, require the stationary source to assemble the information that the rule would make available upon request

(e.g., accident history, safety data sheets [SDSs], and aspects of the emergency response program). The burden of making this information directly available from the source is minimal.

EPA believes that having the source provide directly to the public the materials identified in the rule enhances the public's ability to participate in emergency planning concerning the stationary source and therefore is consistent with the purposes of the statute. The public's ability to participate in emergency planning and readiness is enhanced by being better informed about accident history, types of chemicals present, and how to interact with the stationary source. EPA has been selective in identifying what information a source must make available; for example, we are not requiring the facility to provide an RMP to the public. Having the source provide the information set out in § 68.210 directly to the public promotes accident prevention by facilitating public participation at the local level.

1.1.5. Public meetings

Comment: A facility stated that EPA lacks statutory authority to regulate in response to occurrences that involve only on-site consequences, and encouraged EPA to narrow the public meeting related requirement to impose obligations only in circumstances where impacts occur off-site (0538).

EPA Response: Reportable accidents are incidents of significant magnitude that indicate a potential process safety failure. While some RMP-reportable accidents have only on-site impacts, those accidents are often serious enough to raise safety concerns within the surrounding community. Public input from a meeting after a reportable accident, including those that have only on-site consequences, may lead to improvements in process safety by involving additional perspectives on the safety of the process. In turn, improved process safety will lessen the risk of an accidental release. Therefore, a requirement for a public meeting after a reportable, on-site accident has nexus to the prevention of accidental releases.

1.1.6. Lack of authority to require stationary sources to certify attestations of compliance to Environmental Protection Agency

Comment: An industry trade association argued that no provision in the CAA gives the EPA the authority to require certified attestations of compliance from stationary sources. The commenter asserted that Congress consolidated the certification authority granted to EPA in the CAA in Section 114, which the commenter stated authorizes EPA to require compliance certifications in limited circumstances. The commenter stated that certification of individual RMP requirements is not one of the limited circumstances. Furthermore, the commenter argued that EPA's proposed attestations violate Congress' direction in Section 112(r)(B)(i) that RMP regulations be reasonable. The commenter concluded that the proposal of 17 new attestation requirements is unreasonably burdensome and not rationally related to preventing accidental chemical releases (0537).

EPA Response: EPA is deferring final action on these proposed amendments. When EPA decides to take final action on the proposed amendments, EPA will provide a substantive response to these comments.

1.1.7. Other comments on scope of Environmental Protection Agency's authority

Comment: An industry trade association commented that EPA didn't have authority to regulate fertilizer grade ammonium nitrate (FGAN) under the CAA and urged the Agency against including FGAN under the RMP regulations (0571).

> **EPA Response:** EPA acknowledges that there is both support and opposition to regulating ammonium nitrate (AN) and will consider these comments when determining whether to take further action on this issue. In the interim, EPA encourages fertilizer retailers to review and use existing guidance. OSHA compiles several resources on their Fertilizer Industry Guidance on Storage and Use of Ammonium Nitrate webpage at https://www.osha.gov/dep/fertilizer_industry/.

1.2. Other comments on legal issues

1.2.1. Proposed rule is arbitrary and capricious

Comment: An industry trade association commented that it would be arbitrary and capricious for EPA to impose more burdensome requirements when it has not demonstrated any inherent inadequacy with existing requirements. The commenter's argument was premised on the assertion that EPA is justifying the imposition of new requirements by the lack of compliance with existing ones (0555).

Many commenters, including an environmental advocacy coalition of approximately 140 commenters, argued that it would be arbitrary and capricious for EPA not to consider additional steps in this rule to address particular threats in communities of color and low-income communities. These commenters stated that, because 112(r) facilities create particular and disproportionate health and safety threats in communities of color and low-income communities, and EPA has recognized that these are important factors to consider in rulemaking action, it would be arbitrary and capricious for EPA not to consider additional steps in this rule to address those threats, particularly when the affected communities themselves have recommended specific elements (0574, 0575).

> **EPA Response:** In the proposed rule, EPA identified specific incidents that demonstrated failures and difficulties in accident prevention, emergency response, and information availability despite the general effectiveness of Part 68. We have applied lessons learned from those incidents in developing the amendments in the final rule. Several of the amendments in the final rule will respond to U.S. Chemical Safety and Hazard Investigation Board's (CSB) suggested rule changes based on their review of specific incidents, which is consistent with the structure of CAA 112(r)(6)(C)(ii) and EPA's rulemaking authority in CAA 112(r)(7). Some of the rule changes, such as new information availability provisions, will improve how existing provisions work (e.g., improving the public's access to existing disclosure). Some of the rule changes also will improve compliance by making compliance easier to verify (e.g., documentation of coordination with responders will simplify verifying compliance with the emergency response requirements of subpart E). In sum, the history of implementation of the RMP rule has given EPA sufficient experience to support modernizing and improving the underlying RMP rule and not simply resort to compliance oversight of the existing rule.

EPA's evaluation of the impacts on communities of color and low-income communities is set forth in the RIA. One particular amendment, the provisions regarding STAA, should improve the safety of these communities because it focuses on some of the larger, more complex chemical processes and facilities. As noted in the RIA, there is significant correlation among larger and more complex facilities, riskier facilities, and counties with larger African-American populations. Such targeting of the STAA requirements to the larger and more complex processes will benefit minority communities, which often are located closer to larger facilities with more complex chemical processes and who bear a larger portion of risk from chemical accidents.

1.2.1.1. Third-party compliance audit

Comment: Several commenters, including a facility and industry trade associations, stated that the proposed third-party audit program was arbitrary and lacks sufficient support in the administrative record (0492, 0537, 0550, 0579).

Several commenters, including an industry association, agreed with a statement that the commenters asserted was made by EPA's James Belke in 2001 that EPA would face "long odds . . . legally if it attempted to make third-party audits mandatory" (0579).

EPA Response: In the section of this document responding to the comments on third-party auditing and in the preamble to the final rule, EPA explains at length why the new third-party auditing program in the final rule is necessary and amply supported by information and evidence in the rulemaking record.

The 2001 quote attributed to James Belke is not relevant to this rulemaking for three important reasons. First, the rulemaking record today differs very significantly from what the state of the science, evidence, and experience with third-party RMP auditing was in 2001. The rulemaking record today is replete with articles, studies, and evidence on the effectiveness of independent third-party auditing, and how best to design such programs, that did not exist in 2001 when Mr. Belke wrote his article and hence was not considered at the time. Second, in contrast to Mr. Belke's 2001 discussion, the final rule requires third-party auditing only for the relatively small subset of RMP facilities with accidental releases meeting the criteria in § 68.42(a) from a covered process at a stationary source or where an implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or when a previous third party audit failed to meet the final rule's competency or independence criteria. Finally, it should be noted that Mr. Belke is a not a lawyer and therefore his speculation as to EPA's legal authority in some future rulemaking cannot be read as binding the agency.

1.2.1.2. Safer technology and alternatives analysis

Comment: An industry trade association argued that the proposed IST requirement would be arbitrary and capricious if adopted because (1) EPA has failed to provide any empirical evidence that STAA reduces process safety incidents, (2) the proposed rule would compel facilities to conduct expensive feasibility studies for IST that EPA does not require them to implement, and (3) requiring an IST analysis now would provide no health and safety benefits because industry has informally utilized IST for decades and has, in large part, already implemented the IST they determined to be feasible (0550).

An industry trade association expressed concern relating to the ambiguity and vagueness in the proposed STAA provisions. The commenter stated that our legal system requires that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required, and asserted that the STAA provisions do not provide such notice because they are ambiguous and vague (0537).

> **EPA Response:** STAA, and IST in particular, has been the subject of substantial study and experience, which we discuss in the proposed rule and in the final rule notices. EPA acknowledges that for some industries, evaluation of chemical substitution and process redesign will involve a greater level of effort and resources to consider the practicability of such changes. EPA has revised the cost estimates in the regulatory impact analysis (RIA) to reflect the greater effort involved in conducting such practicability studies. Rather than mandate implementation of particular safer technologies alternatives identified by STAA, EPA relies on sources making rational decisions once presented with STAA studies and selecting prevention approaches that optimize the cost of the measures taken and costs avoided (e.g., liability, operational efficiency, image). Such an approach is similar to the approach to energy assessments recently taken in the major source and area source boiler rules under CAA section 112(d) and affirmed in *U.S. Sugar Corp v. EPA.*
>
> For those facilities who have not considered adopting any IST or have only done so in limited fashion, EPA believes that there is value in requiring facilities with extremely hazardous substances to evaluate whether they can improve risk management of current hazards through potential implementation of ISTs or risk management measures that are more robust and reliable than ones currently in use at the facility. For those facilities that have already considered IST, EPA believes such facilities should re-evaluate whether any improvements in hazard or risk reduction can be made and we believe the five-year re-validation timeframe of the process hazard analysis (PHA) is an appropriate time period for such re-evaluation.
>
> In the preamble to the rule and the proposed rule, EPA discusses key terms in the STAA requirement. In the preamble, we note that many of the concepts in STAA, such as IST/ISD and passive measures, have been the subject of years of study by private organizations such as CCPS, and we have cited to definitions and common terms in industry and other regulatory agencies such as New Jersey Department of Environmental Protection (NJDEP) and Contra Costa County in order to minimize any vagueness. We have expressed reluctance in being proscriptive in our definitions in order to leave flexibility for facility-specific implementation (that is, to avoid a "one size fits all" approach). We place reliance on owner and operator judgment when presented with systematic STAA reviews to identify prudent, effective measures to reduce the risk associated with accidental releases at their facilities.

1.2.2. Legal issues specific to emergency response preparedness requirements

1.2.2.1. Authority of private facilities to perform certain emergency response activities

Comment: As an argument against transferring responsibility for emergency response obligations from local authorities to facilities where the local authorities request the owner or operator assume emergency response obligations, an industry trade association argued that private facilities do not have the requisite authority to (1) close roads, (2) order sheltering in place across a community, or (3) conduct local

evacuations. The commenter asserts that EPA has improperly relied on the general duty clause of the Clean Air Act Amendments (CAAA) to shift these responsibilities from the local authorities to the facilities (0598). Similarly, a union argued that it is an inappropriate application of the Clean Air Act General Duty Clause (GDC) to require regulated facilities to develop emergency response capabilities for the local emergency responders. The commenter asserted that it is not possible for regulated facilities to control the actions and participation of the local emergency responders (0519).

> **EPA Response:** EPA has decided not to finalize an amendment requiring stationary sources to become responding facilities upon the order of local emergency responders. EPA's authority for the emergency response provisions in part 68 is derived from CAA 112(r)(7). EPA's reference in the proposal to CAA 112(r)(1) was to the "philosophy" of that provision, which is denoted as the "Purpose and General Duty" of the entire subsection. Consistent with EPA's view that the GDC is a self-implementing provision that does not require regulations, we do not claim additional authority in the GDC for the emergency response regulations.

1.2.2.2. Environmental Protection Agency should require field exercises more frequently to conform to the standards in the Clean Air Act

Comment: Many commenters, including an environmental advocacy coalition of approximately 140 commenters, argued that the five-year timeframe for emergency response field exercises does not conform to the standard set forth by the CAA under Section 7412(r)(7)(B)(i), which states "the Administrator shall promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners or operators off the sources of such releases." The commenter concluded that, in failing to require sufficiently frequent field exercises to provide for prevention of and response to releases "to the greatest extent practicable," EPA has proposed legally insufficient regulations (0575).

> **EPA Response:** EPA disagrees that CAA section 112(r)(7) requires EPA to establish a requirement for more frequent exercises. The statute itself in CAA section 112(r)(7)(B)(i) does not contain a requirement for emergency response exercises, therefore, nothing in the statute mandates a frequency for such exercises if the EPA decides some exercises may be reasonable. The requirement to conduct emergency response exercises derives from EPA's authority to set "reasonable regulations" that include "procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment." CAA 112(r)(7)(B)(ii) further requires owners and operators to prepare and implement a risk management plan that includes, among other things, "a response program providing for specific actions to be taken in response to an accidental release of a regulated substance so as to protect human health and the environment, including procedures for informing the public and local agencies responsible for responding to accidental releases, emergency health care, and employee training measures." This statutory language provides the Administrator with discretion to decide what components of an emergency response program are reasonable to include in regulations.
>
> EPA believes exercising emergency response plans is a reasonable requirement in order to ensure that emergency response programs will work well in the event of an accidental release. However, EPA is cognizant of the resources (e.g., staffing, cost, expertise) that exercises demand both from

stationary sources and from local responders. To ensure the reasonableness of the exercise requirement, EPA has provided flexibility for stationary sources and local emergency responders to set schedules for such exercises.

EPA disagrees with commenters who recommended requiring field exercises more frequently than every five years. EPA notes that its own RIA for the NPRM projected the emergency response exercise provisions to be the costliest provision of the NPRM, and the Agency is concerned that a requirement for even more frequent field exercises could be prohibitively expensive for some facilities and local responders.

1.2.3. Legal issues specific to information availability requirements

Comment: A few industry trade associations argued that the proposed information disclosure requirements are compelled speech that may violate the first amendment (0512, 0579). An industry trade association commented that EPA's proposal to require disclosure of RMP information and chemical hazard information raises constitutional issues, as it amounts to compelled commercial speech. The commenter described compelled commercial speech as subject to an intermediate-level of scrutiny, and asserted that, unless EPA can affirmatively prove that (1) its asserted interest is substantial, (2) the speech regulation directly and materially advances that interest, and (3) the regulation is narrowly tailored to that interest, then the compelled commercial speech will likely be found to be unconstitutional (0512).

EPA Response: The public has a substantial interest in knowing what chemicals are present in the community and what it should do in the event of an accident involving facilities handling those chemicals. The public also has a substantial interest in having the opportunity to participate in an informed manner regarding emergency planning in its community, and in land uses in the community. The record contains references to accidents having community impacts (e.g., Chevron Richmond) and vulnerable land uses near chemical-handling facilities (West Fertilizer). Facilitating access to information before an incident promotes more effective communication of information during responses to incidents, and thus promotes more effective response programs (see CAA 112(r)(7)(B)(ii)(III) (requirement for response programs to address informing the public)).

The public's ability to participate in emergency planning and readiness is materially advanced by being better informed about accident history, types of chemicals present, and how to interact with the stationary source. EPA has been selective in identifying what information a source must make available; for example, we will not require the facility to provide an RMP to the public. Having the source provide the information set out in § 68.210 directly to the public promotes accident prevention by facilitating public participation at the local level.

The final rule will require an owner or operator of a stationary source to alert the public, via any one of a wide variety of methods, of how to access information about the source that is publicly available. Other statutes and regulatory programs, or other provisions of the RMP, require the stationary source to assemble the information that the rule would make available upon request (e.g., accident history, SDSs, and aspects of the emergency response program). The burden of making this information directly available from the source is minimal.

1.2.4. Requirement to list all applicable regulations

Comment: An industry trade association commented that EPA has mischaracterized the proposed requirement to list all applicable regulations, codes, and standards in § 68.175(d) as a revision to an existing requirement, rather than the creation of a new requirement. The commenter disagreed with EPA's characterization, stated that it is a new requirement, and asserted that EPA's mischaracterization results in a failure to comply with notice-and-comment requirements under the Administrative Procedures Act (0537).

> **EPA Response:** EPA has deferred acting on various streamlining provisions, including proposed amendments to § 68.175(d). When EPA takes final action on the proposed provision, EPA will provide a response.

1.2.5. Failure to comply with Small Business Regulatory Enforcement Fairness Act requirements

Comment: An industry trade association commented that EPA had ignored Small Business Regulatory Enforcement Fairness Act (SBREFA) requirements in developing this proposal by finalizing it and submitting it to Office of Management and Budget (OMB) for prepublication review well before receiving the final report of the Small Business Advocacy Review (SBAR) panel that provided input on the draft proposal (0565). Similarly, another industry trade association stated that EPA failed to meet its statutory obligations under SBREFA by submitting a proposal to OMB two months prior to the issuance of a SBREFA panel's first report, reasoning that the SBREFA process requires EPA to, when appropriate, modify its proposed rule based on the findings of the SBREFA panel (TRANS-08).

> **EPA Response:** EPA disagrees that the Agency did not fulfill its obligations under the Regulatory Flexibility Act or that the Agency did not consider the comments of the SBAR panel and Small Entity Representatives (SERs) in the proposed or final rules. In many locations throughout the proposed rule, EPA discussed SBAR panel recommendations and requested public comments on regulatory alternatives recommended by the SBAR panel. EPA also made numerous adjustments to the final rule to incorporate regulatory alternatives that were suggested by SERs where those alternatives were also supported by public comments and were consistent with the Agency's policy goals. For example, EPA incorporated SBAR panel recommendations by relaxing the competency and independence criteria for third-party auditors; reducing the frequency for conducting facility exercises; and not finalizing the proposed revision to the definition of catastrophic release.

1.2.6. Comment on vagueness of proposed provisions

Comment: An industry trade association commented that the vagueness of many of the provisions will encourage trial lawyers to sue regulated entities (0463).

> **EPA Response:** The CAA allows for citizen suits under CAA section 304. EPA's general approach in part 68 and in the Modernization amendments has been to recognize that process safety requires owners and operators to exercise reasonable judgment in making their facility safer. Therefore, EPA has allowed substantial flexibility for sources on how to comply with this rule. To date, we have not seen numerous citizen suits under the existing provisions. We would

expect that the broad latitude given sources on how to comply would be considered when a party contemplates bringing a case for potential violations of the new requirements.

2. Prevention Program Requirements

2.1. Incident Investigation and Accident History Requirements

2.1.1. General comments supporting or opposing Environmental Protection Agency's proposed changes

Comment: A professional organization expressed support for EPA's proposal regarding incident investigation and accident history requirements (0360). By contrast, a few industry trade associations said that there is no need to revise the incident investigation requirements (0529, 0536, 0594). One of the trade associations said EPA should work to enforce the existing regulations (0594).

EPA Response: EPA's rationale for modifying the accident investigation provisions to explicitly require root cause analysis for investigations of catastrophic releases and near miss events and to have the findings of these investigations integrated into the PHA remains generally the same as in the proposed rule. The most significant change in our approach in the final rule is to retain the catastrophic release definition of the existing rule. As became apparent in public comments, our view that having a common definition of reportable accidental release and catastrophic release would simplify and clarify compliance was outweighed by the potential burden of inadvertently expanding the number of investigated accidental releases. We continue to require investigations of near misses, but have provided additional guidance as to what we intend by the term. Other changes from the proposal are similarly intended to clarify terms used in the rule. Identification of root cause categories in accident history reporting has been eliminated because identifying root cause categories only provides limited information for understanding the root cause which is best attained by reviewing the complete incident investigation report. Implementing agencies and/or local emergency planners may still obtain the investigation report through direct contact with the facility. The changes we adopt in the final rule strike a balance between ensuring facilities and planners learn about the causes of catastrophic releases and near misses while also better targeting the reporting to minimize burden. EPA's responses to comments on specific aspects of the proposed rule's incident investigation and accident history requirements are discussed below.

2.1.2. Definitions

2.1.2.1. Definition of "catastrophic release"

Support for changing the definition of "catastrophic release"

Comment: A local agency said that the EPA should proceed with modifying the definition of "catastrophic release" to be identical to the "accidental release" description (0453).

EPA Response: EPA appreciates the commenter's support for the proposed change. However, due to the large number of comments opposing the proposed revision to the definition of catastrophic release, EPA has decided not to finalize the proposed language.

Opposition to changing the definition of "catastrophic release"

Comment: Although EPA received some support for the proposed definition of "catastrophic release," many commenters were opposed to the revision. Many commenters, including government agencies, facilities, and industry trade associations, said that EPA should not change its definition of "catastrophic release." Many commenters, including a state government agency, facilities, and industry trade associations, argued that EPA's proposed definition of catastrophic release is not authorized under the CAA and improperly intrudes into the authority of OSHA to ensure workplace safety (0400, 0433, 0435, 0461, 0462, 0475, 0476, 0483, 0484, 0487, 0494, 0495, 0496, 0497, 0598, 0502, 0504, 0512, 0527, 0528, 0529, 0536, 0538, 0542, 0544, 0550, 0551, 0556, 0559, 0562, 0565, 0579). These commenters asserted that EPA has authority to address through regulation and enforcement off-site impacts of facility releases, not on-site impacts. A facility asserted that the proposed definition inappropriately expands the scope of EPA's reach into workplace safety by requiring investigations of releases that would also include impacts to onsite workers or property (0492, 0536). A few industry trade associations commented that the proposed changes to this definition could lead to additional burden associated with additional incident investigations, over-reporting of events, and unnecessary public concern about an increase in incidents (0407, 0462, 0528, 0531, 0536, 0551, 0559, 0570, 0573, 0579, 0587, 0594). An industry trade association stated that the definition ignores Congress's express prohibition in CAA section 112(r)(7)(G), which the commenter quotes in part as saying that "in exercising any authority under this subsection, [EPA] shall not … be deemed to be exercising statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health" (0579). An industry trade association argued that onsite injuries should be excluded from this proposed definition because OSHA already has jurisdiction in this area and because these often do not pose any risk to public health or the environment (0495). A trade association disagreed that all incidents that may be catastrophic to onsite workers have the potential to also cause offsite damage, much less catastrophic consequences (0556). A trade association asserted that EPA's proposed definition is inconsistent with CAA § 112(r)(7((D), which requires EPA to coordinate any requirements under this paragraph with any requirements established for comparable purposes by OSHA (0555).

A facility stated that the proposed revision directly contradicts EPA's long-held interpretation that the references in Section 112(r)(2)(A) to "ambient" air limits the Agency's authority to activities with off-site consequences. The commenter asserted that in the proposed rule the EPA does not acknowledge the contradiction from its previous position or explain what new statutory authority exists or why it now has the authority to regulate workplace incidents (0538). A trade association argued that the 1996 rule had made a distinction between accidental release, 5-year accidental reportable releases, where initiating event contributing factors were to be reported if known, and catastrophic releases that required investigation and determination of contributing factors, and asserted that the proposed definition equating 5-year accidental reportable releases with catastrophic releases would expand the investigation reporting requirements without supporting evidence (0536). A trade association argued that that it would not be appropriate to conduct a comprehensive, formal incident investigation of every accidental release, or even every accidental release required to be included in the site's five-year history per Section 68.42(a) and recommended that a subcategory of accidental releases to be investigated be limited to those resulting in off-site consequences: deaths, serious injuries, significant property damage or significant environmental damage (0584).

EPA Response: Due to the large number of comments opposing the proposed revision to the definition of catastrophic release, EPA has decided not to finalize the proposed language. EPA believed that providing a consistent trigger for accident investigations and reportable accidents under the accident history requirements of § 68.42 would simplify compliance for the regulated community. EPA acknowledges that the proposed revision may have inadvertently expanded the definition and therefore the type of accident that could trigger an investigation. Some reportable incidents under the accident history provision may not pose an imminent and substantial threat to public health and the environment (see 40 CFR 68.3 (Catastrophic release)). Due to EPA's decision to retain the existing "catastrophic release" definition and not go forward with the proposed revision, the authority issues raised in comments are moot. However, contrary to one commenter's claim, it has never been EPA's position that the references in Section 112(r) to "ambient" air limit the Agency's authority to regulate only activities with offsite consequences. On the contrary, it has been the Agency's longstanding position that incidents that primarily or even exclusively impact on-site receptors are potentially relevant to protection of the public and the environment from the risks of an accidental release. As EPA explained in the Response to Comment document for the original RMP rule, certain on-site accident impacts are relevant because they "may reflect safety practices at the source" and because "accidental releases from covered processes which resulted in deaths, injuries, or significant property damage on-site, involve failures of sufficient magnitude that they have the potential to affect offsite areas." For similar reasons, requiring investigation of accidents with on-site impacts is not redundant to OSHA's authority when such accidents have the potential to affect offsite areas.

Section 112(r)(7)(G), when read in full, is not a preemption of EPA action in the area of process safety. The commenter replaces with ellipses "for purposes of section 653(b)(1) of title 29" from the text of subparagraph (G). 29 USC 653(b)(1) is a preemption provision that generally bars OSHA from acting on a workplace safety matter when is it is within the jurisdiction of another federal agency ("Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies, and State agencies acting under section 274 of the Atomic Energy Act of 1954, as amended (42 United States Code (U.S.C.) § 2021), exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health."). The provision in section 112(r)(7)(G) simply reflects that EPA, by regulating process safety under section 112(r), does not preempt OSHA's authority also to act. It cannot be read as a preemption of EPA's authority to act.

As mentioned above, it has been the Agency's longstanding position that incidents that primarily or even exclusively impact on-site receptors are potentially relevant to protection of the public and the environment from the risks of an accidental release. EPA is well within its discretion and authority to promulgate the process safety provisions of the final rule.

Suggested changes to and requests to clarify the proposed definition of "catastrophic release"

Comment: A state agency and a local agency suggested adopting California's definition of major incident, which requires investigations for all incidents "within or affecting a process that causes a fire, explosion or release of a highly hazardous substance, and which has the potential to result in death or serious physical harm, or which results in an officially declared public shelter-in-place or evacuation

order" (0450, 0586). A facility said that "potential to release" should be added to the definition of "catastrophic release" to ensure that near misses are investigated (0552). Another commenter suggested renaming these releases "reportable releases" to reduce public concern by avoiding the use of the term "catastrophic" (0564). A facility said that on-site environmental damage should be included in the definition (0482). An industry trade association proposed limiting "catastrophic releases" to those that present "imminent and substantial endangerment to public health and the environment" (0565).

Some commenters, including a few facilities, said that the proposed definition is too vague. The commenters said that terms such as "injuries," "significant property damage," "environmental damage," and "major" are not defined (0435, 0459, 0464, 0489, 0512, 0522, 0529, 0587). Some commenters noted that the use of plural nouns 'deaths" and "injuries" in the definition implies that only more than one death or injury would constitute a catastrophic release and that may not be what EPA intended (0459, 0489). A facility and a private citizen commented that the wording of the definition implies that a "catastrophic release" could include a fire, regardless of whether an actual release of regulated material occurs due to the fire, and also implies that releases involving on-site environmental damage would not be considered catastrophic (0459, 0489). A couple of industry trade associations commented that EPA should not use subjective terms or a checklist in its definition because the current definition encourages facilities to use technical judgment and operational experience to determine which incidents need to be investigated (0598, 0551). An industry trade association said that EPA should make it clear that a catastrophic release only triggers the incident investigation requirements if the release is above the reportable quantity (0544) or the threshold quantity (0581, 0584). A few facilities and industry trade associations said that shelter-in-place orders that are precautionary should not be considered "catastrophic releases," particularly because including them in the definition could deter facilities from issuing those orders as a means to avoid conducting a root-cause investigation (0461, 0464, 0495, 0497, 0581, 0570, 0584, 0573). An industry trade association stated that EPA should create a new category of significant accidental releases requiring incident investigations, rather than "watering down" the definition of catastrophic release (0581).

> **EPA Response:** Due to the large number of comments opposing the proposed revision to the definition of catastrophic release, EPA has decided not to finalize the proposed language. Therefore, comments expressing concerns with EPA's proposed changes, or recommending alternate wording for the proposed definition are moot, and EPA will retain the existing definition of "catastrophic release." EPA notes that the existing rule already requires investigation of near misses (i.e., "…each incident which … could reasonably have resulted in, a catastrophic release"). EPA acknowledges that the terms "injuries," "significant property damage," and "environmental damage", which were used in the proposed definition of catastrophic release, are not explicitly defined in part 68. However, as these terms were (and continue to be) relevant in determining whether an accidental release must be reported in a regulated source's five-year accident history, they are further explained in EPA's guidance materials (e.g., General Guidance on Risk Management Programs for Chemical Accident Prevention (40 CFR Part 68)), and sources should continue to refer to these materials for further explication of key terms. Regarding the comment recommending that a catastrophic release should only trigger the incident investigation requirements if the release is above the reportable quantity, the Agency notes that there are no "reportable quantities" specified under part 68, so it would not be possible for EPA to adopt this approach without first developing reportable quantities, which EPA has not proposed to do. The

incident investigation requirements are also not tied to or triggered by releases only above the RMP reporting threshold quantity, as was implied by a few commenters.

2.1.2.2. Definition of "root cause"

Opposition to proposed definition of "root cause"

Comment: An industry trade association stated that EPA should not define "root cause" and instead should defer to facilities to rely on standard definitions from independent safety organizations (0500). Another industry trade association also argued that EPA does not need to define "root cause" because current incident investigator requirements, which call for the investigator to uncover "the factors that contributed to the incident," are sufficient (0544).

EPA Response: EPA disagrees that the Agency should not define "root cause." The Agency believes it is important to define the term "root cause" so that regulated sources have a common understanding of the goal of an incident investigation. While some independent safety organizations have defined the term, not all of these definitions are the same. In the proposed rule, EPA used the definition contained in the CCPS "Guidelines for Investigating Chemical Process Incidents – Second Edition" (American Institute of Chemical Engineers (AIChE)/CCPS, 2003), which defines "root cause" as "A fundamental, underlying system-related reason why an incident occurred that identifies a correctable failure(s) in management systems." However, as various commenters have noted, not all incidents are necessarily caused by management system failures. Therefore, in the final rule, EPA is deleting the portion of the definition stating, "that identifies a correctable failure(s) in management systems."

EPA also disagrees that the current incident investigation requirements are sufficient to ensure that incident investigations determine root causes. As EPA noted in the preamble to the proposed rule, serious accidents have resulted because investigations of prior incidents at the same facility did not determine root causes. "Factors that contributed to the incident" may or may not be root causes. For example, a poor emergency response may be a factor contributing to the severity of an incident, but would not be a fundamental cause of the incident. EPA believes such contributing factors should be identified during an incident investigation, and ultimately resolved, but not without also identifying and resolving the fundamental reason or reasons why the incident occurred.

Suggested changes to proposed definition of "root cause"

Comment: Many commenters, including industry trade associations, facilities, and a private citizen, said that EPA should revise the definition of "root cause" to remove "system-related" and "management system," reasoning that that not all incidents are due to system failures (0440, 0544, 0550, 0461, 0595, 0459). The private citizen also commented that the definition assumes that there is only one root cause and that the failure is correctable, when there can be many causes and the investigators may not be able to determine what is correctable (0459). An association of government agencies agreed that the investigation should identify all root causes of failure, regardless of whether they are deemed correctable or related to the management system (0510). Other industry trade associations commented that it is very misleading and may lead to incorrect enforcement proceedings to require a facility to identify a management system failure as a root cause of incidents whose true root cause is a design deficiency,

equipment failure, or misuse of equipment (0550, 0579). A union recommended revising the definition to read: "Root cause means a fundamental, underlying, system-related reason why an incident occurred that identifies a correctable failure(s) in management systems or process design" (0519).

> **EPA Response:** EPA agrees with most of the comments, and is finalizing the proposed definition of "root cause" with modifications. EPA is deleting the language regarding identifying correctable failure(s) in management systems, as the Agency agrees that not all incidents are necessarily due to management system failures. For the same reason, the Agency disagrees with adding the words "or process design" to the definition. In response to the comment that the definition assumes that there is only one root cause, EPA agrees that there are often multiple root causes. The final rule defines "root cause" in the singular, but does not preclude the possibility of more than one root cause. EPA agrees with the comments that support investigations identifying all root causes, and the Agency notes that the root cause requirements in the final rule will require the owner or operator to identify "root causes."

2.1.3. Accident history reporting

Comment: Some government agencies, an industry trade association, and a union agreed that the RMP accident history should include the root causes of incidents (0450, 0453, 0528, 0572, 0519, 0586). Several industry trade associations and a facility commented that the existing reporting requirements in § 68.42 are sufficient, and requiring root cause reporting in the five-year accident history is an additional burden that is not offset by improved performance (0495, 0489, 0544, 0581, 0584).

> **EPA Response:** Although EPA believes there could be some benefit to identifying root cause categories within a facility's accident history, in most cases, the Agency believes the incident investigation report must be reviewed in order to fully understand root causes attributed to that incident. Implementing agency officials can obtain investigation reports during inspections or using the Agency's information gathering authorities when needed. Therefore, EPA will not finalize the proposed requirement.

2.1.4. Changes to hazard review (§ 68.50) and process hazard analysis (§ 68.67) requirements

2.1.4.1. Support for including incident investigation findings in the hazard review

Comment: Some commenters, including several government agencies, a union, and an industry trade association, supported the requirement to include incident investigation findings in the hazard review (0428, 0450, 0453, 0510, 0544, 0572, 0586, 0519). A local agency suggested also expanding the requirement to include reasonable research into available industry investigation results, and add these requirements to § 68.50 for Program 2 facilities (0450).

> **EPA Response:** EPA agrees with the commenters' support for including investigation findings in the hazard review. Regarding the recommendation to require reasonable research into available industry investigation results, EPA added the phrase "as well as any other potential failure scenarios" to the PHA provisions in § 68.67(c)(2), in order to require owners and operators of program 3 processes to conduct a literature review for incident scenarios from other facilities that may be relevant to the owner or operator's process. However, EPA did not add this phrase to the Program 2 hazard review provisions. Most Program 2 processes are less complex

than Program 3 processes, and many hazard reviews for these processes focus on ensuring that the process is designed, fabricated, and operated in accordance with applicable industry standards. Such standards are generally updated regularly in order to address (among other things) the causes of recent incidents within the industry. By ensuring the process conforms to industry standards, in most cases the owner or operator of a Program 2 process will have addressed the likely causes of incidents within the owner or operator's industry. Therefore, EPA does not believe it is necessary to add an explicit requirement for the hazard review to consider other potential failure scenarios. Nevertheless, EPA encourages owners and operators of Program 2 processes to conduct such research and incorporate it into hazard reviews as appropriate.

2.1.4.2. Opposition to including incident investigation findings in the hazard review

Comment: An industry trade association and a facility stated that OSHA's Process Safety Management (PSM) regulation already requires PHAs to address previous incidents, and EPA's changes are therefore not necessary (0528, 0569). Another industry trade association commented that, as written, the proposal would require facilities to include all findings from all investigations for the facility's entire history (0536). A different industry trade association argued that these findings are not a good fit for PHAs, which typically use different techniques (0537). This commenter provided the example of the Hazard and Operability Study (HAZOP) PHA technique as an example of a technique for PHAs that is widely accepted but does not consider prior incidents.

EPA Response: EPA disagrees with commenters and is finalizing this requirement as proposed, so that findings from incident investigations are considered when hazard reviews are conducted. EPA notes that the basic purpose of a hazard review is to identify what process equipment malfunctions or human errors could potentially lead to accidental releases, and then to identify what safeguards are needed in order to prevent such malfunctions and errors from occurring. An obvious source of information about such malfunctions and errors is information gained from investigating incidents that have previously occurred within the covered process. For this reason, the Program 3 analog to the hazard review, the PHA, already requires the owner or operator to identify any previous incidents that had a likely potential for catastrophic consequences when conducting the PHA.

EPA therefore not only disagrees with the commenter who stated that including findings from incident investigations within the PHA "would not be a good fit" for the PHA (as the existing rule already contains this requirement), but also believes that this requirement should be incorporated into the hazard review. EPA also disagrees that widely-used PHA (or hazard review) techniques preclude consideration of prior incidents – all PHA and hazard review techniques that EPA is aware of are easily adapted to allow consideration of prior incident scenarios. EPA disagrees that the HAZOP technique may not be adapted to consider prior incident causes. In fact, this PHA technique, which EPA acknowledges is widely used, is specifically intended to identify process deviations that can lead to undesirable consequences, as well as the causes and consequences of such deviations, and safeguards necessary to protect against the deviation from occurring. Incident scenarios are a key source of knowledge for conducting this technique. According to the CCPS "Guidelines for Hazard Evaluation Procedures – Second Edition with Worked Examples" (AIChE/CCPS, 1992, pp 143) "the knowledge-based HAZOP Analysis study can help ensure that the company's practices, and therefore its experience, have indeed been incorporated in the

design." The CCPS Guidelines also provide a specific example of how incident information can be incorporated into the HAZOP:

"As a more specific example, consider the discharge from a centrifugal pump. The guide-word HAZOP approach would apply the guide word 'Reverse' to identify the need for a check valve. The knowledge-based HAZOP approach might also identify the need for a check valve *because an actual problem was experienced with reverse flow…* "[emphasis added].

Regarding the comment that this provision will require the owner or operator to review findings from all incident investigations for the facility's entire history – EPA agrees that the owner or operator should review all available incident information, but notes that the rule does not require the owner or operator to retain incident investigation reports for more than five years. However, if the owner or operator has access to incident information beyond that period, they should incorporate it into their hazard review or PHA as appropriate.

In response to the comment regarding the requirements of OSHA PSM, EPA notes that this final rule requirement is applicable to Program 2 covered processes, which are not subject to the OSHA PSM standard.

2.1.4.3. Opposition to including "other potential failure scenarios" in the process hazard analysis

Comment: A state agency and an industry trade association stated that it is unclear what "any other potential failure scenarios" means (0446, 0536). The state agency also said that facilities may not have access to or knowledge of issues at similar facilities (0446). A facility said that EPA should provide a clearinghouse of "potential failure scenarios" so that facilities will have access to them (0542). An industry trade association commented that a literature review would not provide much information and would be costly to conduct (0579).

EPA Response: As stated in the preamble to the proposed rule, other potential failure scenarios can include incidents that occurred at other similar facilities and or processes, failure mechanisms discovered in literature, or from other sources of information. Regarding the comment to provide a clearinghouse of scenarios, given the variety of processes and stationary sources, and ongoing changes to technologies, it would be difficult to establish a one-stop resource that would identify all potential failure scenarios for all Program 3 processes covered under the rule. However, EPA believes that owners and operators are in the best position to obtain incident information relevant to their own covered processes. In most cases, industry trade associations will be a useful source for this information. Such information is also commonly available in trade journals, at industry conferences, in industry newsletters, in reference publications (e.g., Lees' Loss Prevention in the Process Industries), and through other professional networks. EPA therefore believes that information about other potential failure scenarios that are potentially relevant to a covered process should not be costly for the owner or operator to obtain and will benefit both the regulated stationary source and its surrounding community.

2.1.4.4. Other comments on including incident investigation findings in the prevention program

Comment: A private citizen said that PHAs should have to be updated each time a reportable incident occurs, and should not be limited to "equipment malfunctions" or "human error" (0459).

EPA Response: EPA disagrees that the Agency should require PHAs to be updated after every reportable incident. The rule already requires the owner or operator to establish a system to promptly address and resolve the incident report findings and recommendations. If the incident investigation team identifies PHA deficiencies as a factor contributing to the incident, then EPA agrees that the owner or operator should update the PHA as appropriate to resolve the finding. However, not all investigations will necessarily identify PHA deficiencies as a cause of the incident. In some cases, other factors, such as deficiencies in maintenance, training or operating procedures, may be more relevant.

2.1.5. Destroyed or decommissioned processes

2.1.5.1. Support for incident investigations for decommissioned processes

Comment: Several commenters, including local agencies, facilities, an advocacy group, and an association of government agencies, expressed support for the requirement that an incident investigation with a root cause analysis be performed for incidents involving processes units that were destroyed or will be decommissioned (0450, 0453, 0492, 0510, 0519, 0525, 0543, 0572). A local agency and a facility explained that this information could improve safety for other processes at the same facility or at other facilities (0450, 0492).

EPA Response: EPA agrees with the commenters and has adopted this requirement in the final rule as proposed.

2.1.5.2. Opposition to incident investigations for decommissioned processes

Comment: A facility and industry trade associations commented that there is no benefit to requiring investigations in cases where a process is decommissioned or destroyed (0569, 0592, TRANS-21). A local agency said that stationary sources that de-register their process following a minor incident should not be required to complete an incident investigation with a root cause analysis (0453). An industry trade association stated that a facility should not be required to complete reporting and incident investigation requirements prior to de-registering a process unless a recordable incident has occurred (0528).

EPA Response: EPA is finalizing this requirement as proposed. The Agency agrees with the commenters who support this requirement because it will ensure that when incidents occur, particularly incidents so severe that the owner or operator elects to decommission the process involved or where the process is destroyed in the incident, lessons are learned as a result, both for the benefit of the owner/operator, and potentially for other stationary sources with similar processes. These changes will also ensure that by expanding the root cause analysis requirement to near misses that could have resulted in a catastrophic incident, some stationary sources will be able to take corrective actions before a catastrophic incident occurs.

2.1.5.3. Opposition to Risk Management Program correction requirements for incident information from processes that are destroyed by or decommissioned after an accident

Comment: A facility and an industry trade association said that there is no incremental safety benefit to requiring a destroyed or decommissioned unit to remain registered under RMP until after the incident investigation is complete. The commenters argued that this requirement imposes additional paperwork burdens without any additional safety benefit (0492, 0598).

EPA Response: In response to the comments opposed to the RMP correction requirements for decommissioned processes, EPA believes that the additional paperwork burden regarding such requirements is minimal, as the processes would have already been registered in the source's most recent RMP. New accident history information may be added to the RMP without performing a full update. Following that correction, if the affected process has been decommissioned or destroyed, and if the source has multiple covered processes, the owner or operator would update their RMP to reflect the loss of the affected process (this would be required whether or not the incident was investigated). If the affected process was the only process at the source, after completing the investigation and correcting the existing RMP, the owner or operator would submit a deregistration notice for the source to EPA. Therefore, from a paperwork standpoint, the primary effect of this change would be the timing of when deregistration occurs. EPA believes the potential benefits of the knowledge gained from the incident investigation warrant this delay in deregistering a source.

2.1.6. Near misses

2.1.6.1. Comments supporting a definition of "near miss"

Comment: Several commenters, including government agencies, industry trade associations, facilities, and an advocacy group, recommended defining "near miss" to reduce vagueness, uncertainty around which incidents require investigation, and the reliance on owners and operators to define the term (0406, 0428, 0497, 0598, 0508, 0521, 0522, 0531, 0535, 0543). A Federal agency commented that the Center for Chemical Process Safety (CCPS) has a definition that EPA could adopt (0428). A facility advocated for adopting OSHA's definition of "near miss" (0595). A local agency and an industry trade association suggested providing examples of near misses in guidance (0450, 0476). A facility said that EPA should clarify whether a release is considered a near miss if it was a controlled release (0552).

A facility and an industry trade association said that EPA should not require a root cause analysis until such time as it provides a clear definition for the term near miss (0435, 0598).

EPA Response: EPA is finalizing the language in paragraph (a)(2) of §§ 68.60 and 68.81 as proposed, and has elected not to finalize a regulatory definition of near miss. EPA agrees with those commenters not supporting a "near miss" definition (see comments below) who said it would be difficult to address in a single definition, the various types of incidents that may occur in RMP-regulated sectors that should be investigated as near misses. Instead, facility owners or operators will need to decide which incidents "could reasonably have resulted in a catastrophic release." This may be based on the seriousness of the incident, the process(es) involved, and the specific conditions and circumstances involved. In the 1996 Response to Comment document on the original rule, EPA acknowledged that the range of incidents that reasonably could have resulted in a catastrophic release is very broad and cannot be specifically defined.[2] EPA has decided to leave it up to the owner or operator to determine whether an incident could reasonably have resulted in a catastrophic release and to investigate such incidents.

[2] EPA. May 24, 1996. Risk Management Plan Rule, Summary and Response to Comments. Volume 1, p. 16-4. Docket No. A-91-73, Document No. IX-C-1. https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0153.

EPA understands from the comments that there was some uncertainty about the term near miss. EPA's experiences with RMP facility inspections and incident investigations show there have been incidents that were not investigated, even though under slightly different circumstances, the incident could have resulted in a catastrophic release. While most of these events did not result in deaths, injuries, adverse health or environmental effects, or sheltering-in-place, the Agency believes that in some cases, if circumstances had been slightly different, a catastrophic release could have occurred.

As described in the preamble to the proposed rule, and as noted by one commenter, there is a CCPS definition of near miss. CCPS defines a near miss as an event in which an accident causing injury, death, property damage, or environmental impact, could have plausibly resulted if circumstances had been slightly different.

For example, a runaway reaction that is brought under control by operators is a near miss that may need to be investigated to determine why the problem occurred. Similarly, fires and explosions near or within a covered process, any unanticipated release of a regulated substance, and some process upsets could potentially lead to a catastrophic release.

CCPS's "Process Safety Leading and Lagging Metrics – You Don't Improve What You Don't Measure" explains that a near miss has three essential elements.[3] These include:

- An event occurs, or a potentially unsafe situation is discovered;
- The event or unsafe situation had reasonable potential to escalate, and
- The potential escalation would have led to adverse impacts.

The CCPS document and the CCPS "Guidelines for Investigating Chemical Process Incidents" contain many examples of near misses, which can be an actual event or discovery of a potentially unsafe situation. Examples of incidents that should be investigated include some process upsets, such as: excursions of process parameters beyond pre-established critical control limits; activation of layers of protection such as relief valves, interlocks, rupture discs, blowdown systems, halon systems, vapor release alarms, and fixed vapor spray systems; and activation of emergency shutdowns.

Near misses should also include any incidents at nearby processes or equipment outside of a regulated process if the incident had the potential to cause a catastrophic release from a nearby regulated process. An example would be a transformer explosion that could have impacted nearby regulated process equipment causing it to lose containment of a regulated substance.

The intent is not to include every minor incident or leak, but focus on serious incidents that could have resulted in a catastrophic release, although EPA acknowledges this will require reasonable judgment.

[3] https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0273.

2.1.6.2. Comments opposing a regulatory definition of "near miss"

Comment: Some commenters, including a state agency and industry trade associations, said that facilities should be permitted to determine what qualifies as a "near miss" that requires investigation (0473, 0528, 0529, 0532, 0544, 0550, 0551, 0569, 0579). A state agency said that EPA should not define "near miss" because it would be challenging to provide a definition that is suitable for all industry sectors (0473).

A few industry trade associations commented that the examples of near misses that EPA provided in the NPRM, such as excursions of process parameters and activation of protections devices such as relief valves, should not be considered "near misses." The commenters said that many of these examples are safeguards that are designed to be used to prevent catastrophic releases (0528, 0537, 0579). An industry trade association also proposed a definition of "near miss" that would be limited only to scenarios where the final safeguard or layer of protection is activated, such that a release would have occurred if not for that control (0550). A trade association disagreed that an incident that did not involve a covered process but had the potential to impact a covered process may constitute a "near miss" incident that should be investigated (0579). This commenter believes that requiring an investigation of this type of incident is an unlawful expansion into onsite incidents under OSHA's jurisdiction and that the RMP rule only applies to covered process units.

> **EPA Response:** EPA is finalizing the language in paragraph (a)(2) of §§ 68.60 and 68.81 as proposed, and has elected not to finalize a regulatory definition of near miss. EPA agrees with commenters who said it would be difficult to address in a single definition the various types of incidents that may occur in RMP-regulated sectors that should be investigated as near misses. Instead, facility owners or operators will need to decide which incidents "could reasonably have resulted in a catastrophic release." This may be based on the seriousness of the incident, the process(es) involved, and the specific conditions and circumstances involved. In the 1996 Response to Comments on the original rule, EPA acknowledged that the range of incidents that reasonably could have resulted in a catastrophic release is very broad and cannot be specifically defined.[4] EPA decided to leave it up to the owner or operator to determine whether an incident could reasonably have resulted in a catastrophic release and to investigate such incidents.
>
> EPA agrees that not all excursions of process parameters outside control levels or all instances of protective device activation should necessarily be considered to be near misses. EPA expects that activation of protective devices should be investigated when the failure of such devices would result in a catastrophic release. However, EPA does not agree that near miss investigations should only include situations that resulted in activation of a final safeguard or layer of protection. This may be appropriate in some cases, but in others, multiple layers of protection may quickly fail. EPA believes that owners and operators must use their best judgement to decide which incidents, if they had occurred under slightly different circumstances, could reasonably have resulted in a catastrophic release, and investigate those incidents as near misses.

[4] EPA. May 24, 1996. Risk Management Plan Rule, Summary and Response to Comments. Volume 1, p. 16-4. Docket No. A-91-73, Document No. IX-C-1. https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0153

EPA disagrees that incidents at non-covered processes at a source that could have caused a catastrophic release (could present imminent and substantial danger to public health and the environment) from a covered process should not be investigated. Near misses should also include any incidents at nearby processes or equipment outside of a regulated process if the incident had the potential to cause a catastrophic release from a nearby regulated process. For example, a runaway reaction at a non-covered process brought under control can also be considered a near miss because it may have led to a release from a nearby covered process or because it may indicate a safety management failure that applies to a covered process at the facility. An example would be a transformer explosion that could have impacted nearby regulated process equipment causing it to lose containment of a regulated substance.

2.1.7. Investigation timeframe

2.1.7.1. Support for proposed investigation timeframe

Comment: Several commenters, including state and local agencies and industry trade associations, said that EPA should allow for 12 months to complete an investigation and also allow extensions for especially large or complex incidents (0453, 0473, 0476, 0495, 0532, 0544, 0562). Some commenters also recommended requiring interim reports (0519, 0532). An industry trade association asked EPA to clarify that the 12-month period is only for completing the investigation report, not for implementing the recommendations in the report (0544).

EPA Response: EPA agrees with the commenters supporting a 12-month timeframe for completing an investigation and the Agency has decided to finalize the requirement to complete incident investigations within twelve months as proposed. EPA agrees that the 12-month time limit applies only to completing the investigation report, not to implementing recommendations in the report.

2.1.7.2. Support for shorter investigation timeframe

Comment: Many commenters, including a local agency and a professional association, stated that 12 months is too long to complete most investigations. Some of the commenters, including a local agency, said that the timeframe should be shortened to five or six months, with the ability to request an extension (0450, 0519, 0586). A local government agency said that EPA should require the results of the root cause analysis be submitted within six months (0545).

EPA Response: While EPA agrees that many incident investigations can and should be completed in 6 months or less, the Agency believes that 12 months is a more appropriate timeframe to require completion of root cause incident investigations, because some investigations – particularly those related to serious accidents – can be complicated and require more than six months to complete. Requiring investigations to be completed within one year, while also allowing the implementing agency to approve an extension of time, ensures that the owner or operator will have sufficient time to perform a thorough incident investigation that identifies root causes and other factors that contributed to the accident.

2.1.7.3. Opposition to any investigation timeframe

Comment: Other commenters, including facilities and industry trade associations, said that EPA should not impose a deadline for completing incident investigations (0484, 0492, 0598, 0525, 0528, 0529, 0536, 0579, 0569, 0587). A few commenters, including a facility and industry trade associations, commented that an arbitrary deadline does not account for the complexity of the incident, the types of process units involved, or the need to retain outside consultants or experts to complete the investigation (0492, 0598, 0529, 0579, 0569, 0587). Some commenters also remarked that the average CSB investigation since 2009 has taken 34.5 months to complete (0492, 0579).

> **EPA Response:** After considering these comments, EPA has decided to finalize the requirement to complete incident investigations within twelve months as proposed. EPA believes that this timeframe will provide a reasonable amount of time to conduct most investigations, while also ensuring that investigation findings are available relatively quickly in order to assist in preventing future incidents. For very complex incident investigations that cannot be completed within 12 months, EPA is allowing an extension of time if the implementing agency approves such an extension, in writing. EPA encourages owners and operators to complete incident investigations as soon as practicable, and believes that 12 months is typically long enough to complete even complex incident investigations. However, EPA provided flexibility for facilities to request more time to complete investigations when they consult with their implementing agency and receive written approval for an extension.

2.1.7.4. Comments on requirement to delay process restart until investigation completion

Comment: While one advocacy group said that incident investigations should be completed before the affected process can be restarted (0543), most commenters, including a Federal agency, local agencies, industry trade associations, and facilities, argued that it is not practical to require the completion of the incident investigation before restarting a process because it may take months to identify the root cause of an incident, even though it may be safe to restart the process (0450, 0453, 0482, 0487, 0495, 0598, 0504, 0528, 0529, 0536). Some of the commenters, including a local agency and industry trade associations, reasoned that this requirement could lead to a reduction in safety if it causes investigations to be artificially accelerated in order to restart a process, or could create an incentive for a facility to avoid shutting down a process as a precautionary measure during an incident (0450, 0492, 0495, 0536, 0565). Other commenters, including a facility and industry trade associations, argued that it would be cost prohibitive to require certain processes to be offline for the length of the investigation (0482, 0598, 0579). Commenters in the electric generating industry commented that this requirement could cause significant reliability issues for the power grid, and prevent power generators from meeting energy demands and reliability standards (0484, 0504, 0538, 0562, 0587, 0588, 0475). A few commenters in this industry also requested an exemption for the electric utility sector (0484, 0562).

> **EPA Response:** EPA is not finalizing the proposed requirement to complete the incident investigation prior to restarting the affected process. EPA agrees that in many cases, it would be impractical to do so. However, EPA believes that in situations where an unintended or emergency shutdown of a process has occurred as a result of an incident, owners and operators should take all actions necessary to ensure that the process is safe to operate prior to restarting it. This generally means that the owner or operator must understand and resolve at least the

immediate cause or causes of the shutdown. In many cases, owners and operators should also verify the status of process equipment (e.g., position of key valves, switches, breakers, etc.) to ensure it is in an appropriate state or condition prior to restarting the process.

2.1.8. Incident investigation team

2.1.8.1. Support for proposed incident investigation team requirements

Comment: Several commenters, including a Federal agency, local agencies, an association of government agencies, and an industry trade association, supported the proposal requiring at least one person on the investigation team have knowledge of the process involved and experience in incident investigation techniques (0428, 0450, 0453, 0510, 0528).

EPA Response: EPA is finalizing these changes to the Program 2 incident investigation requirements as proposed. The Agency agrees with the commenters who support requiring at least one person on the investigation team to be knowledgeable in the process involved and other persons with appropriate knowledge and experience in incident investigation techniques, as EPA believes these provisions are necessary to ensure that facilities thoroughly investigate and analyze incidents and their root causes.

2.1.8.2. Opposition to proposed investigation team requirements

Comment: A facility commented that the incident investigation team requirements are unnecessary because this item is already covered by the OSHA PSM standard (0569). A union stated that workers should be involved in the incident investigation and root cause analysis, and the team should include someone with expertise in the facility's root cause analysis method (0519). A private citizen commented that the requirement assumes that all investigations will be conducted by a team, when it is possible for a competent individual to perform all aspects of the investigation if given access and support by the facility owner or operator. The commenter also stated that although the rule provides significant information on who may perform a third-party audit, it does not specify the qualifications of persons who may perform investigations and certify investigation reports. The commenter further recommended that investigators should have mastery of investigation procedures, rather than system knowledge; facility owners and operators should be required to support investigations and provide access to investigators; and Investigators In Charge should be given whistleblower status (0459).

EPA Response: EPA disagrees that these incident investigation team requirements are already covered by the OSHA PSM standard. The requirements for Program 3 processes in the current rule already include a provision for incident investigation teams; however, the incident investigation team requirements in this rule apply to Program 2 processes, which by definition are not covered by the OSHA PSM standard. EPA agrees that the requirement assumes that all investigations will be conducted by a team. EPA believes that all incident investigations, whether conducted on Program 2 or Program 3 processes, should involve a team of at least two people, particularly given the requirement under the final rule for investigations to include analysis of root causes. However, beyond the requirements specified in the final rule (i.e., to establish an investigation team consisting of at least one person knowledgeable in the process involved and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident), the Agency does not believe it is necessary to specify additional qualification

criteria for incident investigation team members. The requirement for the investigation team to include "other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident" should ensure that the team includes someone with expertise in root cause analysis. While EPA encourages sources to involve workers in incident investigations, the Agency is not requiring it because some sources may need to obtain outside experts to investigate incidents. EPA expects that such outside experts will consult with workers and managers at the source as appropriate during the investigation. Additionally, for Program 3 processes, the rule's existing employee participation requirements require the owner or operator to consult with employees on the conduct and development of prevention program elements, including incident investigations, and to provide employees and their representatives with access to information required to be developed under the rule, including incident investigation reports. The qualification criteria for third-party auditors under the final rule are more extensive than the qualification criteria for incident investigators because third-party audits must be performed by, or led by, an independent third-party, whereas incident investigations are not required to be conducted by third-parties. The final rule does not require owners and operators to "certify" investigation reports. The existing whistleblower protection provisions of the CAA and other applicable laws should be sufficient to protect employees from discharge or discrimination resulting from their involvement in an incident investigation.

2.1.9. Root causes

2.1.9.1. Support for root cause analysis requirement

Comment: Several commenters, including government agencies, advocacy groups, and a facility, expressed support for EPA's requirement to include a root cause analysis for catastrophic releases to prevent future incidents (0428, 0435, 0450, 0453, 0470, 0473, 0476, 0495, 0510, 0574). Several commenters, including government agencies, industry trade associations, and advocacy groups, also expressed support for expanding the root cause analysis requirement to near misses that could have resulted in a catastrophic incident in order to make corrective actions before a catastrophic incident occurs (0428, 0443, 0450, 0453, 0470, 0476, 0574, 0519, 0537, 0543, 0545).

A few local agencies also said that facilities should be required to report all near misses, but only conduct root cause analysis for near misses that could have resulted in a catastrophic release to avoid creating too much of a burden on businesses (0450, 0453). Some industry trade associations said that EPA should clarify that it does not intend for incident investigations to be conducted for minor incidents or minor near misses (0476, 0554). An industry trade association said that EPA can further encourage facilities to thoroughly investigate incidents and find all contributing factors by refraining from citing the facility for each contributing factor found during the investigation (0495).

EPA Response: EPA agrees with the commenters who support a requirement for root cause analysis. The final rule does not alter the existing accident history reporting requirements, but does require root cause investigations, including preparation of investigation reports, for incidents that resulted in, or could reasonably have resulted in, a catastrophic release. The Agency believes that requiring root cause analyses for incidents and near misses, and including root cause information in incident investigation reports, are vital for understanding the nature of these events. EPA agrees that this provision would not require investigation of minor incidents or

minor near misses. Whether and to what extent the findings of an incident investigation would influence or result in a regulatory enforcement action will depend on the circumstances of a specific case.

2.1.9.2. Comments on the use of a recognized method to conduct a root cause analysis

Comment: Some commenters, including a facility and an industry trade association, supported EPA's proposal allowing the use of any recognized method to complete a root cause analysis (0435, 0528, 0532). An industry trade association commented that the proposal lacks "structural context" for conducting a root cause analysis, particularly for smaller facilities that may not be able to have a safety and regulatory consultant on staff (0466).

> **EPA Response:** EPA agrees with these comments and is finalizing, as proposed, the requirements that root causes must be determined through the use of a recognized method and that information on root causes must be included in investigation reports. As previously noted, however, the final rule includes a modified version of the proposed definition of the term "root cause." The phrase "that identifies a correctable failure(s) in management systems" has been deleted from the definition. EPA acknowledges that some facilities may need to obtain outside expertise to facilitate the root cause analysis. The final rule allows this to occur, and the potential cost of obtaining such expertise has been accounted for in the RIA for the final rule.

2.1.9.3. Opposition to specifying a root cause analysis

Comment: Some commenters, including industry trade associations and Federal agencies, said that specifying the need to conduct a root cause analysis versus other investigation methods is unnecessary (0440, 0598, 0504, 0512, 0521, 0530, 0529, 0538, 0544, 0551). Some commenters argued that root cause analysis assumes that there is an underlying management or system-related cause behind every incident, which may not be the case and which EPA has failed to prove (0440, 0462, 0492, 0496, 0529, 0550, 0579, 0570, 0573, 0594). A facility and industry trade associations urged EPA to clarify that it is not required to identify a management deficiency in order to satisfy the investigation requirement (0492, 0556, 0579). An industry trade association and a facility stated that EPA should not require facilities select from a predetermined list of root causes so as to avoid forcing them to fit their findings into a category that may not be appropriate (0536, 0560). A private citizen commented that EPA's rationale for requiring root cause analysis lacks a formal comparative analysis supporting that choice over other investigation approaches. The commenter further argued that a "growing body of comparative analysis is occurring" to compare the various approaches, and it would be premature to name one methodology as superior to the others. Finally, the commenter stated that root cause analysis does not ensure that all safety problems and hazard control options will be identified (0459).

A facility said that the requirement to conduct root cause investigations is ambiguous. The commenter said that the investigation report must include the "consequences" of the incident, including such things as sheltering in place, when the definition of catastrophic release also includes sheltering in place as part of the definition. The commenter asked if the requirement to describe the "consequences" of the incident is intended to correspond to the definition of catastrophic release (0489).

A commenter stated that collecting root cause analysis data could be misleading, particularly if EPA does not also collect information about failed safeguards that allowed incidents to occur (0411).

EPA Response: EPA disagrees that root cause investigations are unnecessary. The Agency believes that requiring root cause analyses for incidents and near misses, and including root cause information in incident investigation reports are vital for understanding the nature of these events. However, EPA notes that we have modified the definition of "root cause" to remove the phrase "that typically identifies a correctable failure(s) in management systems" in order to remove the implication that all incidents involve correctable management system failures. EPA also notes that the final rule does not require facilities to use a specific root cause analysis method, select from a predetermined list of root causes, or force-fit investigation findings into an inappropriate category.

2.1.9.4. Opposition to incident investigation methodology

Comment: A commenter argued that EPA does not have the authority to name an investigation method (0357). The commenter cited various provisions of the CAA and the language within the MOU between CSB and EPA and asserted that CSB is the lead entity for accident investigations and has the authority to specify a named investigation method (0357). Other commenters, including a state agency and facilities, said that EPA has not provided examples of how to determine what is a recognized method or which consensus bodies are to be used to determine what is a recognized method (0446, 0464, 0560). An industry trade association stated that the rule raises constitutional due process concerns because the rule lacks specificity to define the "near miss" standard and fails to provide adequate notice to the regulated community as to what the RMP rule will require (0458).

EPA Response: EPA disagrees with these comments. While the final rule will not require use of a specific incident investigation or analysis method (the final rule will allow the owner or operator to determine root causes using "a recognized method"), nothing in the CAA precludes EPA from requiring sources to conduct incident investigations, and the Agency notes that the existing RMP rule already contains such a requirement applicable to Program 2 and Program 3 processes.

EPA also disagrees that we should specify recognized investigation methods or point to specific governing bodies for such methods. Investigation methods evolve over time, and new methods may be developed, so any list promulgated by EPA in this rule may soon be obsolete. The Agency took a similar approach in the PHA requirements for the existing rule, where it listed several potential methods, but also included the option to use an appropriate equivalent methodology. EPA recommends that owners and operators consult available literature on root cause investigation. For example, CCPS has published Guidelines for Investigating Chemical Process Incidents, which provides extensive guidance on incident investigations, near miss identification, root cause analysis, and other related topics.

EPA disagrees that the rule raises constitutional due process concerns. The concept of "near miss" has a meaning in industry and in the chemical engineering profession. In this preamble and in guidance, EPA has explained the concept and has identified sources that explain the term, and EPA believes that this satisfies any due process concerns raised by commenters related to the definition of this term. These sources put the regulated community on notice of EPA's expectations under the rule and thus also address the due process concerns raised by commenters regarding notice to the regulated community as to what the RMP rule will require. EPA expects

that by expanding the root cause analysis requirement to near misses that could have resulted in a catastrophic incident, some stationary sources will be able to take corrective actions before a catastrophic incident occurs.

2.1.9.5. Opposition to requiring root cause analyses for near misses

Comment: Many commenters argued that EPA should not require root cause analyses for near misses. A Federal agency, some facilities, and some industry trade associations said that the uncertainty surrounding the definition of "near miss" would make it difficult for facilities to determine when it is appropriate to conduct a root cause analysis (0435, 0458, 0475, 0482, 0484, 0494, 0504, 0512, 0500, 0527, 0538). A Federal agency, industry trade associations, and some facilities stated that EPA should not require investigations of near misses because that requirement would increase compliance burdens and costs on facilities and take attention away from other safety activities (0458, 0482, 0492, 0502, 0527, 0551, 0554, 0581, 0569, 0584). A few facilities, industry trade associations, and a state agency said that removing the requirement will allow owners and operators to determine their own criteria for investigating incidents, including the use of objective criteria instead of EPA's proposed "slightly different circumstances" (0461, 0462, 0492, 0530, 0528, 0536, 0537, 0555, 0560). A few industry trade associations also argued that the quality of safety reviews will be diluted by applying the requirement to low-consequence, high-frequency events (0466, 0598). An industry trade association stated that requiring a root cause analysis for near misses creates a false equivalency between near misses and actual catastrophic releases (0598).

EPA Response: While EPA acknowledges that requiring root cause analyses for near misses may impose some additional burden on facilities, the Agency disagrees that the burden is unwarranted or that it will take attention away from other safety activities. The Agency notes that catastrophic release near miss events are infrequent events, and therefore do not typically divert attention from other safety activities. However, EPA believes that investigation of such incidents, when they occur, should be a high priority safety activity for regulated stationary sources, because these investigations can lead to the correction of problems which could ultimately prevent much more serious and costly catastrophic release incidents.

EPA also disagrees that the final rule will apply the root cause investigation requirement to low-consequence, high-frequency events. The final rule requires root cause investigations only for incidents that resulted in, or could reasonably have resulted in, a catastrophic release. Such incidents are unusual. Based on accident history information reported to EPA, most regulated sources have never experienced a catastrophic release incident, and the Agency believes that catastrophic release near misses will also be relatively rare events. The final rule does not presume any "equivalency" between near misses and actual catastrophic releases. The Agency notes that actual catastrophic releases may be more difficult to investigate if the incident requires extensive cleanup, damage assessment, evidence collection, etc. – activities that are unlikely to be necessary for near miss events. However, lessons learned from incidents and near misses should both benefit the source and its surrounding community, whether or not such events are viewed as equivalent.

2.1.9.6. Support for requiring root cause analysis for Program 2 facilities

Comment: A state agency and a few local agencies commented that all facilities (including Program 2 facilities) that handle hazardous substances should be subject to the same incident investigation requirements as Program 3 facilities (0406, 0450, 0453).

> **EPA Response:** EPA mostly agrees with these comments. The final rule applies the root cause analysis requirements to both Program 2 and Program 3 facilities. Other changes to the incident investigation requirements make the Program 2 requirements more similar, but not identical, to the Program 3 requirements. Incident investigations for Program 3 processes must involve a contract employee if the incident involved the work of a contractor, and Program 3 incident investigation reports must be reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable. These are requirements of the existing rule for Program 3 incident investigations that relate to prevention program elements (i.e., employee participation and contractors) that are only required for Program 3 processes.

2.1.9.7. Opposition to requiring root cause analyses for Program 2 facilities

Comment: An industry trade association said that since most incidents happen at Program 3 facilities, it is not necessary to expand this requirement to Program 2 facilities (0512). Another industry trade association said root cause analyses should only be required at Program 3 facilities because the methodology is most appropriate for complex incidents (0554).

In consideration of EPA's alternative approach to limit the additional incident investigation requirements to the Program 3 processes that existed before OSHA changed its PSM retail exemption, an industry trade association asked that EPA "maintain the current exemption", that is, limit the applicability of the proposed investigation requirements for the Program 2 facilities under North American Industrial Classification System (NAICS) 211- Oil and Gas Extraction (0528).

An industry trade association said that many agricultural chemical distributors and bulk chemical storage facilities will now be classified as Program 3 facilities due to changes in OSHA rules. The commenter argued that the proposed rules for Program 3 facilities do not balance the costs and benefits for these "new" Program 3 facilities, and said that either these facilities are being improperly categorized or the proposed rules are unjustified (0495).

> **EPA Response:** While it is true that most RMP-reportable incidents occur at Program 3 processes, EPA decided that there was little justification for limiting the root cause requirements to only Program 3 processes, because some serious accidents also occur at Program 2 processes. Also, the Agency notes that some of the accidents at Program 2 processes occur at publicly owned water and wastewater treatment facilities that are not in Program 3 only because they are not located in a state with an OSHA approved State Plan. Unlike state and local government employees at facilities in states with OSHA approved State Plans, state and local government employees at facilities in states under Federal OSHA authority are not covered by the OSHA PSM standard. This results in regulated processes at these sources being placed in Program 2, even though the processes generally pose the same risk as similar processes at publicly owned water or wastewater treatment processes that are located at sources in OSHA State Plan states. Regarding the comment concerning agricultural chemical distributors and bulk chemical storage

facilities now being classified as Program 3 facilities due to changes in OSHA rules, EPA notes that the OSHA action that would have had this effect was vacated by the United States Court of Appeals for the DC Circuit (see USCA Case #15-1326).[5] However, as the root cause analysis requirements in the final rule apply to both Program 2 and 3 facilities, this decision has no impact on the applicability of those requirements.

2.1.10. Other incident investigation report requirements

2.1.10.1. Support for proposed incident investigation report requirements

Comment: A few commenters, including a Federal agency, expressed support for the proposed requirement for incident investigation report contents, including the identification and implementation of corrective actions (0428). An association of government agencies commented that local emergency response agencies should be given the opportunity to comment on the section of the report that describes emergency response actions (0510).

EPA Response: EPA agrees with the commenters' support of the incident investigation report requirements. The final rule enhances the investigation reporting requirements for both Program 2 and 3 process incident investigations. The final rule does not require owners and operators to give local response agencies the opportunity to comment on sections of the report describing emergency response actions, as EPA did not propose this requirement. However, Section 68.93 of the final rule requires the owner or operator to coordinate emergency response needs with local response agencies. Coordination must include providing to the local emergency planning and response organizations, the facility's emergency response plan if one exists, emergency action plan, updated emergency contact information, and any other information that local emergency response planning and response organizations identify as relevant to local emergency planning. Section 68.93 also requires the owner or operator to request an opportunity to meet with the LEPC (or equivalent) and/or local fire department as appropriate to review and discuss these materials. Therefore, local response agencies are encouraged to use these coordination opportunities to discuss emergency response actions relating to incidents at the stationary source, and to request any relevant incident investigation information from the owner or operator.

2.1.10.2. Opposition to proposed incident investigation report requirements

Comment: Several commenters expressed opposition to various incident investigation report requirements. A facility said that EPA's proposed changes are unnecessary because the OSHA PSM standard already has incident investigation report requirements (0569). Some industry trade associations opposed requiring facilities to include the results of the root cause analysis in the incident investigation report, saying this could increase the likelihood of lawsuits against the facility if those reports are made public, or could result in the release of confidential business information (CBI) (0493, 0528, 0523).

[5] US Court of Appeals, Agricultural Retailers Association and the Fertilizer Institute v. OSHA, No. 15-1326, D.C. Cir., September 23, 2016. https://www.cadc.uscourts.gov/internet/opinions.nsf/0/8A21F27B6B8AA5EF85258037004E678D/$file/15-1326-1637299.pdf.

EPA Response: EPA believes that providing the additional required information is vital for understanding the nature of the incident and should be included in the incident investigation report. Some facility owners or operators may already voluntarily include root cause information and other elements required under this rule (e.g., time and location of incident, name and amount of substance involved in the release, etc.) in incident investigation reports prepared to comply with the RMP rule. However, §§ 68.60 and 68.81 are being revised to require this information to ensure clarity and consistency among reports. While the OSHA PSM standard contains the same incident investigation reporting requirements as the existing RMP rule for Program 3 processes, prior to this rule, neither regulation required reporting of root cause information nor the other report elements required in this rule. The purpose of the final rule's third-party audit requirements is different than the incident investigation requirements. Incident investigations are intended to determine the causes and contributing factors of incidents and recommend necessary corrective actions to prevent future reoccurrences of the incident or similar incidents. Third-party audits evaluate the owner or operator's compliance with all of the rule's prevention program requirements and do not substitute for incident investigations. EPA disagrees with the conjecture that an increased possibility of lawsuits following an incident is a good reason not to include root causes and other factual incident information in incident investigation reports. We note that the current rule requires a report that discusses factors contributing to the incident and recommendations resulting from the investigation, so to the extent that litigants would seek to use reports to establish cause or preventability of an incident, the litigation risk is there already. To the extent that the root cause discussion contains CBI, the existing rule provides methods for asserting CBI claims.

2.1.10.3. Suggested changes to incident investigation report requirements

Comment: A few commenters, including an industry trade association and a local agency, stated that EPA should extend the proposed 6-month deadline for submitting accident histories to 12 months (0528, 0572).

An industry trade association provided several suggested changes to the reporting requirements, including only requiring facilities to report what they are capable of knowing (e.g., not requiring them to report the number of casualties or impacts on the environment), allowing for an estimate of emissions and approximation of the event's duration for situations when the exact amounts or length of the event are unknown, and not requiring the identification of a root cause if one is not identified (0594). Another industry trade association commented that the scope of incident investigations should be limited to the process or area of concern and not include areas or processes that are unrelated (0529).

A union advocated for sharing the results of incident investigations and recommended corrective actions with all employees and contracts whose work is related to the incident findings. The commenter also recommended sharing the reports with the employee representatives and be kept on file for the life of the process instead of only five years (0519).

A private citizen suggested that the investigation reporting requirements be modified to concentrate on evidence-based descriptions of events surrounding incidents (0459). The citizen also commented that the regulations for incident reports imply that reports use "natural language," and do not permit the use of graphic or other representations. The commenter further argued that "natural language" incident reports

are problematic because of their size, structure, differing viewpoints, redundancy, and imprecision, among other deficiencies. The commenter stated that EPA should require incident investigation reports to be factual and free of opinions or bias. The commenter also provided a comparison between the information required under §§ 68.42(b) and 86.60(d), and asked EPA to explain why different information is required in those provisions. Finally, the commenter suggested requiring reports of all chemical release investigation reports, except for CSB investigations (0459).

> **EPA Response:** EPA did not extend the accident history deadline to match the 12-month incident investigation reporting deadline because the Agency believes there is a tradeoff between the importance of timely reporting of accident information versus allowing more time, if necessary to determine root causes. The Agency expects that in most cases, incident investigations will be completed within 6 months of the incident, and all accident history data elements listed in § 68.42 will be known. However, for more complex and lengthy investigations, the owner or operator should update the RMP within 6 months to provide known information about the accident, and take additional time – up to 12 months (or longer if an extension of time is approved by the implementing agency) to complete the investigation. EPA agrees that owners and operators are only required to report what they are capable of knowing. For this reason, both the rule and EPA's RMP submission guidance indicate that owners and operators must report some items if they are known, and provide estimates or approximations for certain other items where precise values may not be known. For example, § 68.42(b)(3) requires the owner or operator to report the "*Estimated* quantity released in pounds…", § 68.42(b)(6) requires to owner or operator to report "Weather conditions, *if known*", § 68.42(b)(8) requires the owner or operator to report "*Known* offsite impacts", etc. (emphasis added). EPA agrees that the scope of incident investigations need not include areas or processes that are unrelated to the incident. EPA also agrees that the results of incident investigations and recommended corrective actions should be shared with all employees, employee representatives, and contractors whose work is related to the incident findings. The Agency notes that this is already required under the existing rule for program 3 processes, and EPA encourages owners and operators of program 2 processes to do the same. However, EPA does not agree that incident investigation reports must be retained for the life of the process, as the existing rule's recordkeeping requirements of five years (unless otherwise specified in subpart D) should be sufficient.

2.2. Third-Party Audits

2.2.1. The proposed third-party compliance audit provisions

Comment: Several commenters, including a professional organization, an advocacy group, a state government agency, and a Federal government agency, expressed general support for the third-party audit requirements (0360, 0403, 0506, 0586). A Federal government agency expressed support, reasoning that it has found that internal audits often fail to identify systemic process safety deficiencies (0428).

Many commenters, including Federal government agencies, a local government agency, industry trade associations, and facilities, expressed opposition to the proposed third-party compliance audit provisions (0433, 0487, 0491, 0502, 0504, 0508, 0522, 0529, 0527, 0565). In addition to providing comments on specific aspects of the provision that the commenters opposed (described in the sub-sections below), some commenters expressed more general opposition, reasoning that existing requirements/mechanisms are

working (0335, 0525) or that the costs outweigh the benefits associated with this provision (0337, 0536, 0526). A facility stated that audits by internal resources are more cost-effective and not as disruptive, while still providing adequate assessment and encouraging compliance (0475). An industry association disagreed with EPA's characterization of the benefits associated with third-party compliance audits (0584). An industry trade association argued that EPA has failed to offer any evidence that employers who perform third-party audits comply better with the RMP rule than those that do not, or that the proposed changes would lead to fewer releases. Furthermore, the commenter stated that EPA has failed to show the existence of any enforcement data indicating that audit compliance has become an increased problem since the Agency considered and rejected a third-party audit requirement when crafting the original RMP rule in 1996 (0550). Another industry trade association commented that there is no evidence to suggest that sites audited by third-party auditors are any safer than those audited by in-house personnel or a combination of third-party and in-house personnel (0584). Another commenter stated that the proposed third-party audit requirements would result in decreased safety at facilities and for the nearby communities because access to the most qualified auditors would be restricted (0582).

A Federal agency commented that the proposed third-party audit requirements were unnecessary because regulatory obligations requiring facilities to provide a systematic evaluation of all covered processes can already be achieved under the existing requirements for self-audits and incident investigations (0502). Another facility commented that converting the compliance audit into an enforcement tool will stifle facility owners' ability to rely on compliance audits as a self-improvement tool (0485).

Several commenters stated that EPA should rely on its existing enforcement authority, including the ability to require third-party audits in particular enforcement proceedings, rather than requiring third-party audits more generally (0464, 0494, 0527, 0537, 0555). Rather than finalizing the proposed third-party audit requirements, an industry trade association encouraged EPA to focus on enforcing existing audit requirements (0555). Similarly, a facility recommended that EPA deal with facilities that it deems to be incapable of performing objective auditing processes specifically at that time through its broad and expansive enforcement power, and not hold the remainder of the regulated community subject to the third-party audit requirement (0464).

A few industry trade associations commented that the proposed third-party audit requirements would likely serve to derail current industry-sponsored initiatives and programs, such as the Responsible Ag Initiative (0458, 0598).

A few commenters, including a facility and an industry trade association, stated that EPA should not require all facilities to perform third-party audits every three years (0562, 0535, 0587). Specifically, a facility stated that facilities without reportable or catastrophic releases should not be required to perform third-party audits every three years (0535).

> **EPA Response:** EPA believes it is appropriate to require a subset of RMP-regulated facilities to engage competent and independent third-party auditors following an RMP-reportable accident or identification of conditions at the stationary source that could lead to an accidental release of a regulated substance. The purpose of the third-party audit is to assist the owners and operators in determining whether facility procedures and practices to comply with subparts C and/or D of the RMP rule (i.e., the prevention program requirements) are adequate and being followed. Thus EPA is finalizing requirements for third-party audits when required under §§ 68.58 and/or 68.79,

and requiring owners and operators to ensure that third-party auditors meet qualification criteria and audits are conducted, documented, and findings addressed following requirements of §§ 68.59 and/or 68.80, as applicable.

EPA notes that under part 68, sources with any Program 2 and/or Program 3 processes are already required to conduct compliance audits every three years. This rule will not change the requirement that RMP facilities regularly conduct RMP compliance audits but will provide only that, in specific situations, those audits be performed by a third-party or a team led by a third-party, pursuant to the schedule in §§ 68.58(h) and/or 68.79(h) of the rule. Moreover, as described fully below and in the preamble to the final rule, the third-party auditing provisions in this rule will be regulatory, not enforcement, in nature. Furthermore, this rule's third-party auditing provisions, similarly to self-auditing of compliance requirements, will be independent of, and will not impact, any current or potential future industry-sponsored initiatives or programs.

2.2.2. Third-party auditing constitutional law and agency authority issues

Comment: A few commenters, including a facility and industry trade associations, stated that the proposed rule unlawfully delegates EPA's enforcement authority to a private party by allowing third-party auditors to determine non-compliance that must be remedied (0492, 0536, 0537, 0579). An industry trade association commented that Section 114 of the CAA grants EPA the authority to conduct compliance inspections and only permits the Agency to delegate that function to an "authorized representative" or a state by way of a formal delegation process. The commenter concludes that the third-party audit provisions do not satisfy either of those requirements (0550). Similarly, another industry trade association commented that Section 114 of the CAA prohibits third-parties from exercising RMP enforcement authority because they are not "authorized representatives" of EPA. An industry trade association stated that Congress clearly articulates those limited instances when EPA is allowed to delegate its enforcement authority and that Congress has not done so in this circumstance. This commenter argued that the third-party audit requirements violate the U.S. Constitution's Fifth Amendment's Due Process Clause by allowing a private party to wield substantial power over (i.e., regulate) another private party, by forcing facility owners or operators to accept and address inspection results without clear processes to protect the due process rights of those subject to the audits (0537). The commenter asserted that due process is violated and that the proposal seeks to outsource EPA's inspectional duties to a third-party (0537).

An industry trade association argued that, even if Congress had authorized EPA to delegate authority to private third-party auditors, delegation of such authority would be unconstitutional. The commenter reasoned that the delegation would be unconstitutional because Congress cannot grant regulatory authority to private parties (0579). Similarly, a facility commented that the proposed third-party audit provisions would unlawfully delegate inherently governmental functions by giving private auditors the ability to make adverse audit findings that are conclusive proof of a violation (0492). A few commenters, including a facility, industry trade associations, and a professional organization, stated that the proposed third-party auditing program is an unlawful and unconstitutional circumvention of Congressional appropriations limits on EPA's enforcement budget. Specifically, the commenters argued that the Anti-Deficiency Act prohibits EPA from augmenting its enforcement budget by mandating that third parties oversee the RMP program (0477, 0492, 0537, 0579).

A facility encouraged EPA to clarify that a third-party audit is not required if an implementing agency conducts an evaluation of compliance with applicable process safety regulations, whether in response to an incident or as a part of the implementing agency's regular compliance audit program, reasoning that compliance evaluations conducted by implementing agencies meet EPA's concerns for independent assessment of compliance. Furthermore, the commenter warned that a third-party audit after a compliance evaluation by an implementing agency could be counterproductive because the third-party audit findings are likely to dilute the findings of the evaluation conducted by the implementing agency (0485). Similarly, a few commenters, including a Federal government agency and an industry trade association, encouraged EPA to consider waiving the third-party audit requirement if an implementing agency conducts an inspection as a result of a reportable release or noncompliance at a facility (0502, 0555).

> **EPA Response**: EPA disagrees with the commenters. Third-party audits do not constitute enforcement, nor do they substitute for inspections by implementing agencies. They are compliance audits, similar to the self-audits already required by the Rule, but conducted by a third-party or a team led by a third-party auditor. The findings of a third-party audit are intended to identify non-compliance that was not discovered by facility personnel during self-audits, and are not intended to bring such findings to the attention of government regulators. In fact, the audits are designed primarily to benefit owners or operators by assisting them to identify both actual noncompliance as well as operational or equipment deficiencies, previously unidentified risk factors, and accident release and/or regulatory noncompliance precursor conditions which, if uncorrected, could lead to releases and/or enforcement actions. Proactively addressing deficiencies, risk factors, and precursor conditions to accidental releases and regulatory noncompliance will provide financial, regulatory, and environmental benefits for facility owners and operators and communities.
>
> Furthermore, third-party compliance audits in no way constitute regulatory inspections of, or enforcement at, RMP-regulated facilities. This rule is clear that third-party auditors' or third-party audit teams' findings will not, in and of themselves, determinations of regulatory violations. Nor will the audit reports or related documentation be required to be automatically submitted to implementing agencies. While the owners or operators will be required to address all third-party audit findings, the rule will provide that addressing the audit findings may include, where appropriate, determining that some specific findings were based on incorrect factual assumptions or were otherwise inappropriate to implement. Thus, as described below, the owner or operator of a stationary sources may determine an appropriate response to the findings in the audit report, and will not be required to accept findings when they can justifiably decline to adopt them.
>
> Finally, nothing in this rule will relieve the EPA of any of its responsibilities under the CAA or imply that EPA will not continue to use its enforcement authorities under the CAA or devote resources to monitoring and enforcing this rule. The third-party auditing regulatory requirements simply ensure that regulated entities will, in a carefully-defined subset of circumstances, take reasonable measures to assess and ensure their own compliance.

Comment: A few commenters, including facilities and industry trade associations, questioned whether it was acceptable for EPA to delegate EPA's enforcement authority to implementing agencies by allowing

implementing agencies to require third-party audits based on determinations of non-compliance with RMP requirements (0554, 0489, 0594). A facility argued that EPA's proposal to allow implementing agencies discretion, which the commenter describes as unbounded, to require a third-party audit based on a determination of failure to comply with the RMP requirements could be considered unconstitutional delegation of legislative authority. The commenter reasoned that legislative authority cannot be delegated without clear, articulable principles to define and bound the authority that is delegated (0489).

> **EPA Response:** The final rule will modify the triggers for third-party audits, and third-party audits will not be required based on determinations of failure to comply with RMP requirements.

2.2.3. Security concerns associated with third-party compliance audits

Comment: An industry trade association expressed concern with ensuring proper treatment of confidential information by third-party auditors. The commenter asserted that the proposed rule does not address whether or not a facility will be able to limit the release of sensitive information once a third-party auditor is involved and recommended that EPA revise the rule to incorporate such language (0495). An industry trade association commented that facility and process security are obvious concerns for the commercial explosives industry. Recommending that EPA eliminate the third-party audit requirements, the commenter reasoned, in part, that internal staff at explosives sites would have undergone mandatory background checks, but independent third-party auditors wouldn't necessarily be subject to the same security screening (0556). A few commenters, including a facility and an industry trade association, stated that attempts to find auditors with appropriate security clearances would further limit the pool of available, properly qualified and independent auditors (0556, 0560). A facility stated that security protections would be up to the facility and any other regulations that the facility is required to follow regarding a site security plan (0552).

An industry trade association commented that the third-party compliance audit requirements create legal concerns given that the third parties would be privy to potential CBI or information that should be protected under attorney-client privilege (0476).

> **EPA Response:** EPA acknowledges commenters' concerns; however, facility owners or operators routinely obtain and review the internal policies, procedures, and qualifications of a wide range of consultants and contractors before engaging them in order to assess their qualifications to perform consulting or contractual services. EPA is confident owners and operators will be able to ensure that third-party auditor personnel meet applicable security criteria.
>
> Regarding concerns that the third-party compliance audit requirements create legal concerns given that the third-parties would be privy to potential CBI or information that arguably should be protected under attorney-client privilege, the contracts or other agreements between owner/operators and third-party auditors can address how any potential CBI is handled by the third-parties.
>
> EPA further notes that the third-party audit reports and related records under this rule, like other documents prepared pursuant to part 68 requirements, such as process safety information, PHAs, operating procedures and others, are not documents produced in anticipation of litigation. With

respect to the attorney-client communication privilege specifically, the third-party auditor is arms-length and independent of the stationary source being audited. The auditor lacks an attorney-client relationship with counsel for the audited entity. Therefore, neither the audit report nor the records related to the audit report provided by the third-party auditor are attorney-client privileged (including documents originally prepared with assistance or under the direction of the audited source's attorney). Nevertheless, this rule will not contain a specific regulatory provision prohibiting assertion of these privileges, and the ultimate decision maker on questions of evidentiary privileges are the courts.

2.2.4. Requirement to conduct compliance audit for each covered process

Comment: Some commenters opposed the requirement that third-party audits cover all RMP-covered processes at the facility (0362, 0492, 0538, 0557, 0581, 0579, 0584, 0594). A few commenters, including industry trade associations and facilities, stated that EPA has not supplied any justification for why audits, both internal and third-party audits, need to be more comprehensive than they were previously or why RMP and PSM should differ with respect to the scope of processes required to be audited. These commenters, as well as others, noted that EPA has long endorsed guidance from the CCPS allowing facilities with a large number of covered processes to audit a representative sample of processes (0555, 0579, 0570, 0594). Similarly, other commenters, including a facility, expressed opposition to the requirement that compliance audits, including both internal and third-party, cover all covered processes (0560).

An industry trade association argued that it was punitive for an accidental release from one process to automatically trigger a third-party audit requirement for all covered processes. The commenter noted that where third-party audits were required to cover multiple RMP-covered processes, it could often require the site operator to retain multiple consultants with varied expertise, which would involve the negotiation of multiple contracts (0362). A few commenters, including a facility and an industry trade association, stated that requiring that all RMP-covered processes at the facility be audited regardless of what process triggered the requirement to perform the third-party audit would result in duplication of efforts with little benefit where processes at multi-process facilities are on different auditing schedules and third-parties are required to audit processes that were recently audited and not related to the incident that triggered the third-party audit (0492, 0579). A facility commented that requiring audits of processes that are not part of an incident would tie-up plant resources for longer than needed, which was particularly notable to the commenter because these processes would very likely still be operating after the incident and at the time of the audit (0538).

EPA Response: EPA has consistently maintained that, at least every three years, owners or operators must, under the RMP rule, certify that they have evaluated compliance with the prevention program requirements for each covered process. In EPA's General Risk Management Guidance, issued in 2004 and updated in 2009, in Chapter 6, "Prevention Program (Program 2)," Section 6.7 "Compliance Audits (§ 68.58)", under the heading "What Do I Need to Do?," it states "At least every three years, you must certify that you have evaluated compliance with the prevention program requirements for each covered process" (emphasis added). In addition, Chapter 7 of this guidance, "Prevention Program (Program 3)," Section 7.9 "Compliance Audits (§ 68.79)," states "You must conduct an audit of the process to evaluate compliance with the prevention program requirements at least once every three years." While EPA does list the 1993

edition of CCPS Guidelines for Auditing Process Safety Management Systems as a reference source within this guidance, EPA disagrees that the CCPS guidelines endorse allowing large facilities to audit a representative sample of covered processes.

EPA has also clearly stated its position within the NPRM preamble for the initial RMP regulation, and in the Response to Comments for that rule. In response to a question concerning whether facilities could stagger compliance audits where there are multiple processes at a facility, EPA stated, in the Response to Comment document, that a source "may choose to audit different processes on different schedules (if) over each three-year period, all covered processes are audited."[6] Furthermore, while OSHA's original PSM compliance audit guidelines may have allowed for auditing a sample of processes, the current guidelines are consistent with EPA's General Risk Management Guidance. See OSHA's "Appendix C to § 1910.119 -- Compliance Guidelines and Recommendations for Process Safety Management (Nonmandatory)." EPA's decision to retain, in §§ 68.59(e)(3) and 68.80(e)(3) of the final rule, the requirements for the third-party audit reports to document the auditor's evaluation, for each covered process, of the owner or operator's compliance with the prevention program provisions is thus consistent with both the initial RMP rule and EPA's longstanding interpretation of the scope of the rule.

Therefore, EPA disagrees with commenters that believe it is punitive or redundant to require an audit of all RMP-covered processes at the facility including those not involved in an RMP-reportable accident. The third-party audit replaces the next scheduled self-compliance audit, and each facility compliance audit must address each covered process at least every three years.

EPA also disagrees with commenters' burden argument for larger companies and facilities with a larger number of processes. These larger facilities typically also have more personnel and resources, where smaller facilities with fewer processes may have fewer employees, so the burden of auditing is proportionate for these facilities. Furthermore, larger facilities with more processes, in general, are likely to have more potential opportunities for accidental releases due to their size, complexity, and scale of operations. Therefore, it is appropriate for such facilities' auditing responsibilities to be commensurate to their size, complexity, and scale of operations.

2.2.5. Third-party audit applicability

2.2.5.1. The proposed applicability requirements for third-party audits

Comment: A few commenters, including local government agencies and a state government agency, stated that the applicability requirements as proposed are appropriate (0450, 0453, 0586). After questioning whether a third-party audit is a necessary requirement and providing feedback on the potential weaknesses and/or burdens associated with this proposed provision, a state government agency expressed agreement with the proposed applicability requirements (0473). Although questioning the validity of the auditor qualification criteria, a facility stated that the proposed events that would trigger a third-party audit were warranted (0595).

[6] EPA. May 24, 1996. Risk Management Plan Rule, Summary and Response to Comments. Volume 1, p. 15-2. Docket No. A-91-73, Document No. IX-C-1.

EPA Response: EPA appreciates the commenters' support. For the reasons discussed throughout the remainder of this section of the Response to Comments document, with one exception, EPA is finalizing the applicability requirements for third-party audits as proposed. As discussed below, the one revision EPA will make is to require the implementing agency to base a determination on conditions at the stationary source that could lead to an accidental release of a regulated substance, rather than on noncompliance. An implementing agency may determine that a third-party audit is necessary following inspections, audits, or facility visits, if conditions are observed at the stationary source that could lead to an accidental release of a regulated substance. The implementing agency may choose to take other action following an inspection, as appropriate.

2.2.5.2. Risk Management Program reportable accident criterion

Comment: Many commenters recommended that this trigger be limited to releases that result in offsite impacts and provided unique specifications to tailor this trigger (0423, 0492, 0495, 0530, 0542, 0552, 0555, 0558). To the extent that accidental releases trigger requirements to perform third-party audits, a facility urged EPA to limit the requirement to catastrophic releases that cause offsite impacts, which the commenter asserted would appropriately focus third-party audits on the most significant releases and allow the Agency and regulated community to work together in addressing these issues (0492). Similarly, another commenter recommended that EPA require third-party audits only after those accidents that result in off-site impacts, reasoning that the employer is responsible for handling workplace incidents that occur on-site (0423). An industry trade association encouraged EPA to limit this trigger to Program 3 facilities that have had major accidents with offsite impacts and to align the definition of "major accident with offsite impacts" with the OSHA PSM standard (0495). An industry trade association stated that third-part audits may be a reasonable option for major accidents that result in significant offsite impacts, but recommended that discretion to require them be left to state and local officials who are most familiar with the particular event and internal capabilities of the particular site and local emergency management structure (0558). Another industry trade association recommended that EPA limit any requirement for independent third-party auditing to facilities that have multiple major accidents resulting in offsite deaths, serious injuries, or significant environmental contamination (0584).

An industry trade association stated that third-party audits should only be required if the facility has experienced an accidental release that meets the criteria in § 68.42(a) and EPA makes the determination that there is good cause for the audit. The commenter argued that EPA should not require a third-party audit automatically, but only if EPA determines that it makes sense in light of the particular circumstances and facts surrounding the release in question (0529).

A local government agency encouraged EPA to require the third-party audit only for major accidents that result in significant off-site impacts at sites where no third-party audit had been performed at the facility in the five years preceding the release (0530). An industry trade association commented that facilities that have undergone a third-party audit within the last three years that substantively met the third-party audit requirements in the proposed rule, should be exempt from this provision unless an accident with off-site consequences occurs (0551).

An industry trade association stated that requiring a third-party audit after an accidental release that causes injury, without further defining the scope of the release or the severity of the injury, would lead to

absurd results, and urged EPA to narrow the scope of this trigger or consider equating the trigger with a catastrophic release (0362). Similarly, another commenter stated that third-party audits should only be required after incidents that result in significant impacts to workers, the environment, or the community (0441). As an alternative to their proposed approach of eliminating the third-party audit requirements, an industry trade association suggested that EPA could consider imposing the third-party audit requirements on facilities that have an accidental release in the future that results in serious injury or death onsite or offsite (0537). An industry trade association encouraged EPA to consider a greater threshold for triggering a third-party audit requirement, such as multiple releases in a given timeframe or the seriousness of the incident. As the basis for this recommendation, the commenter stated that because the vast majority of reported RMP-reported incidents do not result in serious injury or an off-site consequence, a single reported incident is unlikely to be indicative of either inadequate audits or an inadequate preventative program (0551).

EPA Response: EPA disagrees with commenters that third-party compliance audits will become an overwhelming compliance function. EPA has limited applicability of third-party audits to circumstances in which an RMP reportable accident has occurred, when conditions exist at the source that could lead to a release, or when a previous third-party audit failed to meet the competence or independence criteria. In responding to the above comments, it is necessary to provide context for how infrequently third-party auditing will, in practice, be necessary under the final rule, both in absolute numbers of such audits and their number relative to the full universe of RMP-regulated stationary sources already subject to the RMP rule's self-auditing requirements.

Currently, there are approximately 12,000 stationary sources with Program 2 and/or Program 3 processes. The final rule requires third-party compliance audits only under the following two conditions:

- If there has been an RMP reportable accident (i.e., an accidental release from an RMP facility meeting the five-year accident history criteria as described in § 68.42(a)); or
- If an implementing agency makes a determination that a third-party audit at an RMP facility is necessary, based on information about the facility or a prior third-party audit at the facility.

EPA does not expect these criteria to impact a large percentage of stationary sources with Program 2 and/or Program 3 processes. For example, comparing the number of facilities which in past years have had an RMP reportable accident (averages approximately 150/year), with the number of current stationary sources with Program 2 and/or Program 3 processes, would represent less than 2% of stationary sources subject to this requirement, due to an accident, on an annual basis. For more information on the number of RMP reportable accidents over a ten-year period see section 7.1 of this document. Executive Order (EO) 12866: Regulatory Planning and Review and EO 13563: Improving Regulation and Regulatory Review.

EPA also disagrees with suggestions to limit the applicability of third-party compliance audits to releases with offsite impacts, deaths, injuries, or significant environmental impacts. The purpose of the third-party audit is to help reduce the risk of future accidents by requiring an independent and objective audit to determine whether the owner or operator of the facility is effectively

meeting the prevention program requirements the RMP rule. Stationary sources that have had accidents and/or substantial non-compliance with RMP requirements pose a greater risk to the surrounding communities. EPA believes that accidental releases that involve deaths, injuries, or significant property damage on-site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage are all potential indicators of noncompliance with RMP prevention program requirements.

The existing self-audit requirements under §§ 68.58 and 68.79 incorporate a proactive evaluation of prevention program requirements for Program 2 and Program 3 processes. However, when a facility has an accidental release or noncompliance that could lead to an accidental release of a regulated substance, EPA has determined that further self-auditing may be insufficient to prevent accidents and ensure safe operation. Therefore, we believe it is appropriate to require such stationary sources to undergo third-party auditing to better assist owners and operators and implementing agencies to determine whether the procedures and practices developed by the owner and/or operator under subparts C and/or D of the RMP rule (i.e., the prevention program requirements) are adequate and being followed. EPA believes this approach will improve public safety overall by preventing future accidents at the source.

2.2.5.3. Applicability to near misses

Comment: A local government agency stated that requiring facilities that experience near misses to conduct a full compliance audit could discourage employees from reporting near misses (0530).

EPA Response: The final rule will not require a third-party compliance audit following a near miss. Occurrences of near misses may be one factor that is considered by an implementing agency when determining whether to require a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance. However, EPA does not believe that these new requirements will discourage employees from reporting near misses. Employees who work at RMP facilities are often the first impacted by incidents involving RMP processes and thus have a particular interest in the safe and continued operation of their workplaces. This should serve as a positive incentive for such facilities and their employees to conscientiously report and investigate near misses.

2.2.5.4. Applicability of third-party audit requirements to flaring events

Comment: A facility requested confirmation from EPA that a flaring event would not constitute an "accidental release" or trigger the third-party audit requirements (0461).

EPA Response: A flaring event, in and of itself, will not automatically be, under this rule, an "accidental release" or trigger for third-party auditing. Flaring events and other releases and incidents at a facility would constitute an "accidental release," however, if they meet or trigger the third-party audit requirements pursuant to the criteria in § 68.42(a). Such an event may also be considered by an implementing agency in evaluating whether there are conditions at a stationary source that could lead to an accidental release of a regulated substance.

2.2.5.5. Overlap between incident investigation and third-party audits

Comment: Many commenters, including a local government agency, industry trade associations, and a facility, commented that EPA should focus on incident investigations, as opposed to third-party audits, after accidental releases that trigger an incident investigation (0494, 0492, 0530, 0528, 0529, 0536, 0564, 0581, 0579). An industry trade association commented that incident investigations are the activities that are most likely to mitigate both the severity of the incident and the potential for recurrence (0494). A few commenters, including a facility and an industry trade association, recommended that third-party audits not be required where an accidental release meeting the five-year accident history criteria triggers an incident investigation because both of these exercises require substantial internal resources and the incident investigation is more responsive to health and safety concerns (0492, 0579). Similarly, a local government agency stated that requiring a facility to conduct the third-party audit after an accidental release has the potential to dilute resources from the facility's completing a comprehensive incident investigation and implementing associated improvements, which the commenter asserted should be the focus after an accidental release (0530).

As an alternative, an industry trade association described a framework that would require an incident investigation, but no third-party audit immediately after a catastrophic release. However, the commenter's proposal specified that EPA could then require that the next three-year compliance audit (after the completion of the incident investigation) have some degree of independence to assess the effectiveness of the changes made in response to the incident investigation (0579).

> **EPA Response:** EPA disagrees with commenters. Following an accident, incident investigations often reveal that facilities have deficiencies in some prevention program requirements related to that process. Incident investigations generally only evaluate the affected process, and do not necessarily address all covered processes at a facility, or even all prevention program elements for the affected process. However, compliance audits entail a systematic evaluation of the full prevention program for all covered processes, and EPA expects that third-party audits should identify deficiencies in any other covered processes at such facilities.
>
> EPA believes that conducting the third-party compliance audits immediately after an accidental release is necessary to identify and correct existing non-compliance with prevention program facilities that could lead to future releases. EPA acknowledges that conducting third-party audits at the same time as incident investigations may impact the availability of facility resources for these activities. However, this is not a sufficient argument to delay the independent audit. Facilities may hire personnel from different firms to conduct the two activities or, for some facilities with knowledgeable internal staff to conduct investigations, they may only need to hire the third-party.
>
> Although we agree with the commenter that suggested that compliance audits assess the effectiveness of changes made in response to an incident investigation, we disagree that this assessment must be made by a third-party. The owner or operator will resume the three-year schedule to conduct self-compliance audits after the third-party audit and, at that time, the facility owner or operator may consider the findings of the incident investigation and the third-party compliance audit when assessing compliance with prevention program requirements.

2.2.5.6. Implementing agency criterion

Comment: Many commenters argued that the implementing agency findings of non-compliance trigger should either be eliminated or significantly revised (0482, 0492, 0598, 0504, 0529, 0536, 0564, 0581, 0584, 0594). A facility commented that EPA should limit third-party compliance audits, if it requires them at all, to situations in which an implementing agency has determined that a facility is in significant non-compliance with the RMP regulations, reasoning that under these circumstances a third-party compliance audit may add value by identifying how the facility can resume and maintain compliance. The commenter added that facilities with no evidence of significant non-compliance are already addressing potential risks and should not be required to undertake the costs of a third-party audit (0482). A few commenters, including a Federal government agency and industry trade associations, specified that third-party audits should not be required for administrative or paperwork related violations (0504, 0524, 0551). An industry trade association recommends that the following list be an exhaustive list defining significant noncompliance: (1) failure to submit an RMP; (2) failure to conduct a required OCA; (3) absence of an emergency response program (not merely one the Agency deems insufficient); (4) failure to conduct a compliance audit; and (5) failure to identify a covered process (0594).

Several industry trade associations commented that requiring third-party audits in response to any incident that must be included in a five-year accident history report would impose substantive obligations on facilities in response to incidents resulting in onsite impacts, which the commenters described as squarely within the sole jurisdiction of OSHA (0559).

A few commenters, including a facility and an industry trade association, commented that, although the preamble seems to indicate that the noncompliance trigger is limited to occasions where the implementing agency determines "significant" noncompliance, the proposed regulatory text fails to narrow the compliance trigger in this way (0489, 0537). A facility argued that the broad regulatory language allows an implementing agency to require a third-party audit if there is any noncompliance, which the commenter asserts opens the door for inconsistent, even arbitrary decisions by implementing agencies. Furthermore, the commenter takes issue with the concept of "significant" noncompliance, arguing that it is extremely vague and subjective (0489).

Among other reasons, an industry trade association encouraged EPA to eliminate implementing agency determination of non-compliance as a trigger for the requirement to conduct a third-party audit because of the potential for abuse of this mechanism by agencies (0529). An industry trade association commented that the non-compliance trigger would be susceptible to abuse by implementing agencies that desire to target a particular facility unfairly or by implementing agencies that are understaffed or unable to perform facility inspections on their own (0598). A facility stated that the proposal contains no limitation on how often an implementing agency may require a third-party audit for non-compliance and recommended that it be revised to limit the implementing agency trigger to correspond with the scheduled three-year compliance audit (0492).

A commenter stated that this trigger would discourage self-disclosure of RMP non-compliance (0564).

A few commenters, including an industry trade association and a state government agency, encouraged EPA to clarify or define the threshold level of severity, above which non-compliance could trigger the requirement to conduct a third-party audit (0446, 0524). To avoid consistency issues across different

implementing agencies, a state government agency encouraged EPA to clarify what is meant by "non-compliance" that could trigger a requirement to perform a third-party audit (0446).

EPA Response: In response to comments, EPA is revising the implementing agency third-party audit applicability criterion by requiring the implementing agency to base a determination on conditions at the stationary source that could lead to an accidental release of a regulated substance, rather than on noncompliance. An implementing agency may determine that a third-party audit is necessary following inspections, audits, or facility visits, if conditions are observed at the stationary source that could lead to an accidental release of a regulated substance. The implementing agency may choose to take other action following an inspection, as appropriate.

Conditions at a stationary source that could lead to an accidental release may include, but are not be limited to, significant deficiencies with process equipment containing regulated substances, such as unaddressed deterioration, rust, corrosion, inadequate support, and/or other lack of maintenance that could lead to an accidental release. The presence of small "pinhole" releases, that do not meet the criteria in § 68.42(a) for RMP-regulated accidental releases, could also constitute conditions that could lead to a larger accidental release of a regulated substance. The occurrence of several prior accidental releases that did not meet the reporting criteria in § 68.42(a) at or from a facility could also constitute conditions which could lead to accidental releases. These releases may be a potential indicator that an owner or operator is not complying with RMP prevention program requirements and would benefit from a third-party audit to prevent future accidental releases.

EPA believes that having the implementing agency evaluate whether conditions exist that could lead to an accidental release will better address the types of situations where a third-party audit would be most effective and will minimize the potential for inconsistent or arbitrary decisions made by implementing agencies. EPA also believes that the revised criterion will be responsive to commenters' requests to narrow the applicability of these requirements. The criterion will focus on conditions with the potential to lead to accidental releases, rather than authorizing implementing agencies to require third-party audits under a potentially wide range of circumstances, including minor noncompliance.

In the final rule, a facility owner or operator will have an opportunity to challenge the underlying findings when an implementing agency requires a third-party audit. Sections 68.58(g) and 68.79(g) will describe the notification and appeals process. The implementing agency must provide written notice to the facility owner or operator that describes the basis for the implementing agency's determination. Within 30 days, the owner or operator may consult with, and provide information and data to the implementing agency on the preliminary determination. The implementing agency will then consider this information and provide a final determination to the owner or operator. EPA believes this appeal process will provide due process to the owner or operator and will be sufficient to eliminate any potential inconsistent use or abuse of authority.

2.2.5.7. Previous third-party audit criterion

Comment: A few commenters, including a facility and an industry trade association, suggested the deletion of failure of a previous third-party audit to meet the competency, independence, or impartiality

criteria as a triggering event to require a subsequent third-party audit, reasoning that EPA has not shown that the auditor criteria included in this triggering event will necessarily lead to better outcomes (0461, 0462). Furthermore, a facility questioned whether it was reasonable for EPA to declare a previous audit that was otherwise conducted in good faith to be null and void because of burdensome and exceedingly difficult to track auditor qualification criteria (0461). An industry trade association expressed opposition to this trigger, stating that the proposed language could be read to apply the new proposed criteria for third-party auditor competency, independence, and impartiality retroactively to third-party audits conducted before this rulemaking becomes final (0537).

In contrast, a facility stated that the criteria for the implementing agency to require a third-party audit based on noncompliance should be limited to situations where the previous third-party audit failed to meet the competency, independence, or impartiality criteria (0560).

> **EPA Response:** EPA disagrees with commenters' assertions that stationary sources will find it burdensome or difficult to apply the third-party auditor competency and independence criteria in this rule to identify qualified third-party auditors. See section IV.B.3.i and IV.B.3.j for a discussion of auditor qualifications in the final rule as well as an explanation for why EPA believes that independent auditors can provide a fresh perspective on compliance audits that will enable an owner or operator to improve the source's RMP.
>
> If the implementing agency has concerns that a previous third-party auditor failed to meet the qualification criteria for competency and independence, then the implementing agency may choose to require that another third-party audit be conducted. The final rule will establish a procedure for owners or operators to challenge the regulators' determinations.

2.2.5.8. Alternative criteria suggestions

Comment: A Federal government agency encouraged EPA to require third-party compliance audits for Program 2 and 3 facilities every three years, reasoning that this alternative option is a more preventative measure than the triggering events currently proposed (0428). Similarly, another commenter noted that the proposed audit triggers are sometimes retrospective and noted that prospective audit or evaluation triggers would by definition be more desirable for chemical release prevention purposes (0459). A few commenters, including a state government agency, suggested that EPA consider limiting the requirement to perform third-party audits to specific NAICS codes (0423, 0473). These commenters recommended that certain types of facilities be excluded from the requirement, including water and wastewater treatment facilities (0423) and the retail anhydrous ammonia industry (0473). A local government agency commented that EPA should consider limiting the requirement to perform third-party audits to the petroleum manufacturing, chemical manufacturing, and paper manufacturing industries only (0572).

As part of the SBAR panel process for the proposed rule, SERs suggested that EPA consider excluding or exempting small businesses from the rule's third-party auditing requirements or providing small businesses with special flexibility to use less-than-fully-independent third-party auditors such as retired facility employees not otherwise meeting all of the proposed rule's independence criteria. The SERs noted that the requirements in the proposed rule for every member of the third-party auditing team to individually meet all of the proposed rule's competency and independence criteria would be especially costly and burdensome to small businesses.

A commenter stated that for facilities belonging to multinational companies with corporate engineering resources, the third-party audit should be limited to a one-time event. After that initial third-party audit, the commenter recommended that the facility be required to submit documentation to prove how future audits would be conducted by the company for that site, such that the audit procedures, quality, and standards would meet EPA's proposed criteria. The commenter reasoned that this was an acceptable framework because multinational companies most likely have a lot more qualified resources and personnel who understand the chemical process in the facility better than anybody else, and, in the long run, it is better to have an effective audit program that the company can run itself (0532).

An industry trade association stated that a more effective alternative to EPA's proposal would be to require an independent third-party or an internal audit at the next scheduled compliance audit, leaving the decision about the appropriate auditing team up to the facility (0565).

A commenter encouraged EPA to allow facilities to respond to EPA's potential enforcement of third-party audit requirements before the facility is subject to the requirement, reasoning that owners and operators should be given an opportunity to prove that their audit policies and procedures meet or exceed the criteria required by EPA (0532). Similarly, another commenter supported an opportunity for the owner or operator to provide information and data to the implementing agency and to consult with the implementing agency about the need to perform a third-party audit before the implementing agency representatives make a final determination (0528).

An industry trade association stated that the accidental release trigger was not an effective way to improve public safety and urged EPA to adopt a more proactive approach. As an alternative, the commenter recommended that EPA should make use of collected accident history data to identify the regulated facilities that are likely to need immediate attention. After identifying the facilities that need attention, the commenter recommended that those facilities would be asked to submit their two most recent audits to EPA for review. EPA could then offer the facility the option of conducting a third-party audit as an alternative to an EPA inspection (0551).

A state government agency encouraged EPA to consider authorizing a broader third-party assessment that goes beyond a compliance audit to also include evaluation of safety culture and human factors, as well as an independent root cause analysis (0586).

A few commenters, including professional organizations, stated that the frequency of audits should be based on the company's risk assessments and audit procedures. Furthermore, commenters stated that companies should document the conditions under which a triennial audit is adequate for the protection of their employees and the surrounding community and when more frequent audits need to be done (0335, 0477).

An industry trade association stated that a third-party audit should not be required in a situation where an owner or operator were to learn of a condition(s) at a facility suggesting concern or potential risk of future accidents, reasoning that if such a condition was found, then there are existing mechanisms in place to mitigate it (0495).

An industry trade association encouraged EPA to develop a narrower range of circumstances that can trigger a third-party audit to ensure they will not become an overwhelming compliance function and

detract from the performance-based aspects of RMP (0598). Similarly, a professional organization and an industry trade association stated that the circumstances under which a company conducts an RMP audit should be left to the company because the standards are performance-based (0477, 0571).

EPA Response: The final rule will require third-party compliance audits under the following two conditions:

- If there has been an RMP reportable accident (i.e., an accidental release from an RMP facility meeting the five-year accident history criteria as described in § 68.42(a)); or
- If an implementing agency makes a determination that a third-party audit at an RMP facility is necessary, based on information about the facility or a prior third-party audit at the facility.

EPA has considered the various comments suggesting alternative criteria, and is not making other changes to the rule in response.

EPA disagrees with the suggestion to require all facilities with Program 2 and/or Program 3 processes to conduct third-party compliance audits every three years because the Agency believes that this would impose a very large economic burden on the regulated industry. EPA is also concerned that there may not be a sufficient number of independent auditors available to perform third-party audits at the frequency that this approach would demand.

A commenter noted that the proposed audit triggers are sometimes retrospective and noted that prospective audit or evaluation triggers would by definition be more desirable for chemical release prevention purposes. In fact, the proposed rule included and the final rule will include retrospective (past reportable release) and prospective (conditions that could lead to such releases) triggers.

In the context of EPA's overall approach to this rule, EPA has determined that it is unnecessary to add an exceptions or exemptions process for third-party auditor competency and independence to the final RMP rule, to exempt small facilities or facilities within select industry sectors from the third-party auditing requirements, to limit the requirement to perform third-party audits to specific NAICS codes, exclude certain types of facilities (e.g., water and wastewater treatment and retail anhydrous ammonia industry facilities) from the requirement, or limit the requirement to perform third-party audits to the petroleum manufacturing, chemical manufacturing, and paper manufacturing industries only (0572).

First, EPA expects that the current approach to require third-party audits following an RMP reportable accident, or based upon an implementing agency's determination, will only impact approximately 150 facilities per year with reportable releases plus an estimated very small number of additional facilities meeting one of the other two applicability triggers (conditions at a stationary source that could lead to an accidental release of a regulated substance or a determination that a required independent third-party audit was inadequate). In the Initial

Regulatory Flexibility Assessment (IRFA)[7] for the proposed rule, EPA determined that relatively few small businesses have reportable accidents and therefore this provision will typically not apply to small facilities. Therefore, it is not necessary to exempt small facilities or revise the auditor qualifications for small facilities.

Additionally, EPA believes that the revised third-party auditor qualifications in this final rule will make it easier for owners and operators to find suitable third-party auditors and third-party audit team leaders to comply with the third-party audit provisions, making it unnecessary to add additional exceptions or an exception process to the final rule. EPA agrees with commenters' requests to provide additional flexibility to allow retired facility employees to conduct a third-party audit and is revising the auditor qualification criteria to address this request (see section IV.B.3.j in the preamble to the final rule for more information).

EPA disagrees with commenters that request EPA exclude facilities within specific sectors from third-party applicability. EPA based applicability of third-party audits on whether a source had an RMP reportable accident, whether conditions exist that could lead to an accidental release, or when a previous third-party audit failed to meet the competence or independence criteria. EPA believes that these criteria are a potential indicator for noncompliance with program prevention requirements and therefore warrant an evaluation by a third-party. Facilities in all industry sectors and NAICS codes may potentially have reportable releases. Therefore, it would be inappropriate to exclude facilities in specific sectors or NAICS codes entirely from the independent third-party auditing requirements. To the extent facilities in any specific industry sector or NAICS code are historically or prospectively relatively less likely than facilities in other sectors or NAICS codes to have such releases, however, they will be correspondingly less likely to need to conduct independent third-party compliance audits. If a specific industry sector does not typically have accidental releases, then this provision will not likely apply. The rule is carefully structured to produce these desirable outcomes. Furthermore, EPA is modifying the third-party auditor qualification criteria to make it simpler for all businesses, small, medium, and large and in all sectors, to find qualified third-party auditors. Therefore, it is not necessary to exclude or limit third-party audit applicability to specific industry sectors.

EPA also disagrees with the commenter who proposed requiring an independent third-party or an internal audit at the next scheduled compliance audit, leaving the decision about the appropriate auditing team up to the facility (0565). As discussed at length in the preamble to this rule and in this Response to Comments document, the final rule will require independent third-party auditing only in specific, limited circumstances. In determining such circumstances, EPA is taking into account both the benefits of such auditing and market-based and economic factors such as qualified auditor availability and cost. In the preamble and herein, EPA explains the bases for this decision. For these reasons, when the standards for when independent third-party audits are necessary apply, it is imperative that the owners or operators actually obtain such audits and not substitute additional self-auditing for the third-party audits.

[7] The IRFA can be found in Chapter 7 of the *Regulatory Impact Analysis for Proposed Revisions to the Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7).* This document is available in the docket for this rulemaking (Docket ID Number EPA-HQ-OEM-2015-0725).

EPA disagrees with the commenters that suggested allowing facilities to respond to EPA's potential enforcement of third-party audit requirements before the facility is subject to the requirement. These commenters reasoned that owners and operators should be given an opportunity to prove that their audit policies and procedures meet or exceed the criteria required by EPA or provide information and data to the implementing agency and consult with it on the need to perform a third-party audit before the implementing agency makes a final determination. To require EPA or an implementing agency to first review existing policies would be potentially burdensome and time consuming to the agencies and facilities, alike, and lead to delays in performing the audits. Moreover, even if a regulated entity's written audit policies and procedures were to appear sufficient on their face, the actual audit as conducted and/or the facilities' responses to the audit findings would not necessarily be adequate. Therefore, EPA believes that in the narrow circumstances in the final rule where a third-party audit is required, the facilities will benefit from performing them.

EPA disagrees with the comment which recommended that EPA should make use of collected accident history data to identify the regulated facilities that are likely to need immediate attention, asking those facilities to submit their two most recent audits to EPA for review, and then offer the option of conducting a third-party audit as an alternative to an EPA inspection. This procedure would be time-consuming and complicated for EPA to implement and potentially burdensome to regulated entities, as well, as it could require them to supply significant additional information to EPA not previously required to be submitted and respond to follow-up requests for further or clarifying potentially useful information. It could also submit the entities to regulatory inspections they would not otherwise require, with a necessarily different focus and perhaps also scope than those of the independent third-party audits. For these reasons, EPA believes the final rule's independent third-party auditing applicability provisions are superior to the proposed alternative standards and processes.

Regarding the comment that encouraged EPA to consider requiring a broader third-party assessment that goes beyond a compliance audit to also include evaluation of safety culture and human factors, as well as an independent root cause analysis, in response, EPA notes that the third-party audit is fundamentally a regulatory compliance audit. EPA proposed that the scope of third-party audits be identical to the scope of existing compliance audits required by the regulation, but conducted by a third-party (i.e., the third-party audit must evaluate the source's compliance with the provisions of subparts C and/or D, for Program 2 and/or 3 processes, respectively). While EPA recognizes the benefit of broader assessments that include areas such as safety culture and human factors, the RMP regulation contains no requirements for these areas – therefore, EPA believes it would not be appropriate to require them in the context of a regulatory compliance audit. However, EPA has no objection to owners and operators expanding the scope of a third-party audit to include evaluation of additional areas beyond those required to be evaluated under part 68, provided the third-party audit includes an evaluation of the source's compliance with all provisions of subparts C and/or D, as appropriate, for all covered processes at the source.

A few commenters stated that the frequency of audits should be based on the company's risk assessment and audit procedures. Furthermore, commenters stated that the companies should

document the conditions under which a triennial audit is adequate to protect their employees and surrounding communities and when more frequent audits need to be done. EPA views these approaches, however, as both more indirect, more resource and time-consuming, less enforceable, and less responsive to actual releases and demonstrated conditions that could lead to such releases, than to establish specific triggers for the third-party audits of such releases and conditions.

Regarding situations where an owner or operator learns of a condition(s) at a facility suggesting concern or potential risk of future accidents, third-party audits are, in fact, not automatically required in such instances nor does EPA find that they should be.

2.2.6. Implementing agency notification and appeals

Comment: A few commenters, including industry trade associations, asserted that the appeals process associated with third-party compliance audits was insufficient (0336, 0494, 0500). An industry trade association expressed due process concerns related to the triggers for third-party compliance audits, stating that the proposed rule fails to provide the regulated facility an opportunity to contest implementing agency allegations of non-compliance (0494). Another industry trade association listed the following deficiencies with the opportunities for appeals: (1) the current appeals process does not preclude the excessive or baseless use of the claim by agency staff; (2) the facility would be positioned to overcome a presumption of "heightened risk," which immediately situates the facility in an uphill battle; (3) the NPRM does not detail the quality or quantity of data, research, or other information that a facility could present to overcome an agency's determination and the requirement to perform a third-party audit (0500).

A few commenters, including a facility and an industry trade association, emphasized the importance of an independent body participating in the appeals process (0336, 0489, 0594). A commenter stated that there is insufficient independence in the appeals process, reasoning that there is no independent entity to evaluate decisions made by EPA (0336). Similarly, a facility stated that EPA should clearly provide for judicial review of decisions on appeals by including regulatory language specifying that EPA's decision "constitutes final agency action for purposes of judicial review" (0489). An industry trade association recommended that EPA revise the proposal to provide for appeal to the Environmental Appeals Board to provide for a stay of the request to conduct a third-party audit while the appeal is pending. To the extent that EPA or an implementing agency believes an appeal would cause unacceptable delays and that conduct of an audit is urgent, the commenter recommended that the Agency allocate its enforcement and inspection resources to address any such concern (0594).

A facility made several other recommendations for improvement to the appeals process, including stating that EPA should make deadlines for appeals at least 60 days and should expressly provide for extensions, should provide for judicial review of decisions on appeals, and should expressly state that an implementing agency's final decision for appeals under §§ 68.58(g)(4) and 68. 79(g)(4) "constitutes final agency action for purposes of judicial review" (0489).

EPA Response: This rule will establish a formal and rigorous process for owners or operators to contest applicable EPA determinations that independent third-party auditing is required. Sections 68.58(g) and 68.79(g) will describe the notification and appeals process for when an implementing agency requires a third-party audit. The implementing agency must provide

written notice to the facility owner or operator that describes the basis for the implementing agency's determination. Within 30 days, the owner or operator may consult with, and provide information and data to, the implementing agency on the preliminary determination. The implementing agency will then consider this information and provide a final determination to the owner or operator. Then there is an appeals process, in which the owner or operator may appeal the final determination to the EPA Regional Administrator, or for determinations made by other implementing agencies, the administrator or director of such implementing agency. Such determinations will be subject to judicial review to the extent that they have the characteristics of final agency action, however, it is important to note that the final determination regarding the applicability of these provisions is not an enforcement determination. It is a notification regarding the applicability of an existing regulatory requirement, a requirement that does not apply to all stationary sources, all the time, but rather when an agency determines that it would apply, the owner or operator is notified, given an opportunity to consult, and appeal further within the agency. Part 68 already includes final agency determinations regarding regulatory requirements in Section 68.220, and the process set out in this final rule for appeals of third-party audit determinations will be similar.

EPA disagrees with the comments requesting an independent party be added to the appeals process. This approach would create unacceptable delays while the implementing agency and the facility identifies an appropriate third-party. EPA believes the appeals process set out in the final rule will provide sufficient opportunities for the owner or operator to challenge an implementing agency's determination.

In response to the comment about short timeframes, EPA has determined that the 30-day timeframe to submit an appeal, which follows an initial 30-day time period for the owner or operator to provide information and data to, and consult with, the implementing agency, is adequate and will ensure timely consideration of the information presented. EPA believes there is sufficient time built into the initial notification and consultation process, and the subsequent appeals process, particularly considering that the provisions apply to third-party audits required due to conditions at the facility that could lead to an accidental release of a regulated substance, and taking into account the need, in these circumstances, to take prompt action to identify and correct deficiencies.

2.2.7. Schedule for conducting a third-party audit

Comment: To the extent that the schedule relates to a requirement to conduct a third-party audit after a catastrophic release, a facility expressed support for the proposed 12-month timeframe to conduct a third-party audit (0535).

A few commenters opposed the proposed schedule for conducting third-party compliance audits (0492, 0598). An industry trade association commented that it would not be reasonable or appropriate to require completion of an audit report within twelve months by default (0598). Several commenters, including industry trade associations, stated that, although it seems that EPA intended to require completion of the audit within 12 months of a triggering event, as written, the deadline would be even sooner if the next scheduled triennial compliance audit is less than 12 months away (0581, 0584, 0585, 0594). Some of these commenters described this framework as both unfair and infeasible, and encouraged EPA to make it

clear that the deadline should never be less than 12 months. Furthermore, the commenters requested that the rule explicitly authorize a site to obtain an extension of time beyond the 12 months for good cause (0581, 0584). A few other commenters, including a facility and an industry trade association, described example scenarios in which the proposed schedule would be unreasonable or impossible and commented that the proposal should be revised to allow for extensions to perform the third-party audit (0492, 0579).

A facility commented that the proposal seems to include inconsistent requirements for the required timing of third-party audits, asserting that § 68.79(a) indicates that a compliance audit must be completed every three years and that sometimes that audit will be required to be a third-party audit, but that § 68.79(h)(2) indicates that a third-party audit may have to be scheduled outside of the three-year auditing cycle. The commenter requested clarification and expressed a preference for requiring compliance audits no more frequently than every three years (0489).

A facility encouraged EPA to change the word "any" within § 68.58(h)(1) to "the" to clarify that each audit report is due 12 months from the time the associated third-party audit is required and make clear that, where more than one audit is required, all reports are not due within 12 months from the date that the first audit was required (0489).

If implementing agencies are allowed to tighten deadlines for conducting a third-party audit (i.e., require them more quickly than within 12 months), then a facility encouraged the EPA to require the implementing agency to demonstrate a very good reason in writing (0336).

A few commenters, including a facility and industry trade associations, encouraged EPA to clarify that conducting a third-party audit would count as the scheduled compliance audit and reset the clock on the three-year compliance audit schedule (0492, 0579, 0594).

> **EPA Response:** In response to comments, EPA is revising the regulatory text to clarify that the schedule for conducting a third-party audit, unless a different timeframe is specified by the implementing agency, is within 12 months of an RMP reportable accident or within 12 months of the date of the implementing agency's final determination. If the final determination is appealed as described in the regulation, then the third-party audit will be required within 12 months of the date of the final decision on the appeal. EPA believes that the 12-month timeframe in the final rule will provide sufficient time for owners or operators to complete a third-party audit while avoiding unnecessary delays in identifying and addressing non-compliance. Additionally, the final rule will allow the implementing agency to specify a different timeframe for conducting third-party audits. This allows flexibility for an implementing agency to specify an extension, or to specify a shorter timeframe, to complete the audit, as appropriate.
>
> EPA acknowledges that in some cases, the default result of these timeframes may be that a gap of greater than three years may occur between completion of the previous compliance audit and a subsequent third-party audit (e.g., if an accident triggering a third-party audit occurs shortly before the facility's next regular compliance audit is due). In these cases, the owner or operator will still have 12 months to complete the third-party audit unless a different timeframe is specified by the implementing agency. Finally, stationary sources are required to audit compliance at least every three years, and a third-party compliance audit counts toward meeting

this recurring requirement for purposes of determining the timing of the stationary source's next compliance audit.

2.2.8. Process by which owners or operators select third-party auditors

Comment: Commenters disagreed about whether facility owners and operators should be responsible for determining and documenting third-party auditor qualifications for competence, independence, and impartiality. A few commenters, including local agencies and industry trade associations, supported having the facility, rather than a regulatory agency, determine auditor qualifications (0450, 0453, 0528, 0529, 0537). Another industry trade association agreed that auditor competency should be determined and documented by individual owners and operators but asserted that independence and impartiality should be the responsibility of the third-party auditor (0495).

An industry trade association stated that if EPA proceeds with the proposed auditor independence criteria, then third-party auditors should be required to provide the owner and operator credentials demonstrating that they meet all auditing criteria listed in the rule (0528). A facility expressed the belief that the language that exists in the current regulation adequately defines roles and skills necessary to complete an audit (0569).

Some other commenters, including a state agency, facilities, and industry trade associations, described the proposed provisions as burdensome for facility owners and operators and opposed the requirements for several reasons, including the following:

- If a facility lacks the ability to perform its own compliance audit, it may lack the ability to assess a third-party's competency to perform an audit (0336, 0473).
- The company is not allowed to use auditors who have worked for the company previously (0336, 0527).
- A facility cannot easily obtain and review another company's internal policies and procedures each time it engages a third-party auditor (0598).
- The determinations are more properly performed by a regulatory agency (0458, 0522).
- The provision would allow EPA to take enforcement actions against the facility, not for actions that had a negative impact on safety, but for paperwork violations (0527, 0595).

A few of the commenters expressed support for the establishment of an accreditation program for auditing firms (0453, 0473, 0595). A state agency suggested as an alternative the establishment of an oversight committee, including representatives from the facility, local agencies, and the community, for safety evaluation assessments (0450). A state government agency commented that an oversight committee would be needed to ensure that the process is truly independent if the auditor is hired by the owner or operator and not by the implementing agency (0586). Reasoning that it is unclear why EPA would place the burden on the facility that already has shortcomings with fully implementing the RMP program, a facility suggested that EPA approve third-party auditors based on technical and other qualifications and provide a list of those determined to be acceptable to industry (0595). Local agencies and a facility suggested that the implementing agency should approve or assist the facility in selecting a third-party auditor (0450, 0453, 0552).

In the preamble to the proposed rule, EPA provided suggestions for possible regulatory changes, including additional accreditation criteria. A facility stated that existing accreditation from a recognized auditing body should be allowed but not be the only prerequisite for being qualified to conduct a third-party audit (0552). The commenter asserted that emphasis should be primarily placed on knowledge of the process, the regulated substance, and the pertinent regulations. An advocacy group suggested that if an auditor failed to identify a crucial hazard that could have prevented a catastrophic event, the auditor should lose its accreditation until it corrects the problems that led to the failure (0507).

EPA Response: EPA considered, but is not adopting, changes to the final rule that would establish additional processes or programs under which EPA or other regulatory agencies must first approve or credential third-party auditors before owners or operators can engage them. Nor is EPA modifying the rule to establish or reference additional independent auditor accreditation programs or auditor accreditation oversight committees or otherwise require potential third-party auditors to be accredited by an independent auditing or accreditation body before owners or operators may engage the auditors under this rule.

For some programs, external accreditation of third-party auditors adds additional rigor to the process of ensuring the competence and independence of the auditors, but such external accreditation can be time-consuming and add financial costs. EPA has considered these comments and believes that establishing an accreditation program for third-party auditors would add time and costs to the process of third-party auditor selection and engagement without sufficient countervailing benefits given the overall context of the auditing and the rule's supporting processes and criteria. Therefore, in this final rule, EPA is electing, instead, to focus on streamlining the auditor competency and independence criteria. Owners and operators will be responsible for determining and documenting that the third-party auditors are qualified pursuant to the rule's competency and independence criteria. EPA believes this approach will be consistent with the majority of commenters' requests that the process for engaging the auditors should be straightforward and maximize owner or operator discretion in selecting third-party auditors. Owners and operators routinely obtain and review the internal policies, procedures, and qualifications of a wide range of consultants and contractors before engaging them in order to assess their qualifications to perform consulting or contractual services. EPA is confident that owners and operators will be able to assess third-party auditor qualifications in a similar manner.

EPA believes that the level of effort and resources necessary to establish these programs would cause unnecessary delays in implementing third-party compliance audit requirements and are not warranted for the small universe of facilities that may be subject to these requirements.

2.2.9. Auditors and audit team structure

Comment: Many commenters, including a Federal government agency, a state government agency, facilities, and industry associations, stated that facilities should have the flexibility to utilize internal staff who are much more familiar with the facility and process details than outside consultants (0435, 0489, 0490, 0504, 0512, 0517, 0526, 0544, 0557, 0571). A facility commented that in the past it has used third-party auditors and determined that their existing internal audit process provides an audit of equal or greater value than that of the third-party (0569). Industry trade associations also asserted that the use of facility staff was more effective than third-party auditors because crucial time is not lost in learning about

the facility (0476, 0529). Another industry trade association stated that, in addition to identifying deficiencies, the most effective audits identify opportunities for improvement, which the commenter asserted is why audits that are conducted by or overseen by corporate staff or staff from other facilities within a company with similar processes can be more effective than strictly third-party audits (0551). A professional association stated that companies must determine their own policies, procedures, and programs for performing audits (0335). Similarly, an industry trade association stated that owners and operators should be allowed to choose whether in-house personnel or a third-party auditor conduct the compliance audit, as long as the organization can demonstrate that the auditor is qualified (0512).

Industry trade associations commented that EPA's proposed approach may have unintended consequences on the effectiveness of audits by setting up an adversarial relationship between the regulated facility and the third-party auditor and creating a scenario that discourages the free flow of information between the facility and the auditor (0512, 0537). Furthermore, an industry trade association commented that this fundamental change to the RMP audit program will likely cause companies to separate RMP and PSM audits. The commenter argued that such a change would demonstrate that EPA had failed in this rulemaking to satisfy its statutory obligation to develop a coordinated approach with OSHA (0537). An individual commenter recommended the Institute of Nuclear Power Operations (INPO) evaluation team model, which is a hybrid of a self-audit and a third-party audit by well qualified individuals (0459). An industry trade association suggested setting up an industry sharing option (similar to the OSHA's Voluntary Protection Programs (VPP) auditors that use qualified personnel from other regulated facilities or company employees from a different plant) in lieu of third-party auditing firms (0495).

A Federal government agency recommended that third-party auditors be required to consult with facility employees and their representatives when conducting audits, reasoning that this requirement would be consistent with the language in the CAA at 29 U.S.C. 651 et seq. and EPA guidance on worker participation during EPA audits and inspections (0428). Although opposed to the proposed requirement for third-party audits, an industry trade association asserted that there can be value in having/adding a third-party individual on or in coordination with a self-audit team, reasoning that the addition of the third-party auditor contributes to the development of the internal experts and expertise. As an alternative to the proposed third-party auditing framework, the commenter suggested that EPA consider the following approaches: (i) corporate auditors; (ii) certification programs; (iii) special government employee model as implemented by OSHA and used in the VPP system (0495).

Several commenters recommended that EPA consider alternative frameworks to the proposed third-party audit requirements. One commenter recommended that EPA consider enhanced self-audits, which the commenter described as increasing compliance flexibility while also providing competent, independent, and impartial internal audits through existing internal auditing programs independent from a regulated facility (0562). Among other recommendations, a commenter encouraged EPA to consider a peer facility safety audit system modeled after the proven INPO system to perform audits on post-release and a random basis (0459). With the goal of helping facilities to better comply with existing audit requirements and as an alternative to the third-party compliance audit requirement, a state government agency suggested that EPA assess the resources available to the regulated public to help them understand how to properly conduct a compliance audit (0473).

EPA Response: In response to commenters' suggestions to allow more flexibility on the composition of the audit team, EPA is finalizing an approach that allows owners or operators to meet their third-party auditing obligations either by:

- Engaging third-party auditors meeting all applicable competency and independence criteria, as originally proposed, or
- By assembling an auditing team which is led by a third-party auditor but may include other audit team members. The audit team may be comprised of:
  - A team leader – this must be an employee of the third-party auditor firm who meets all of the competency and independence criteria of the rule;
  - Other employees of the third-party auditor firm – these personnel must meet the independence criteria of the rule; and
  - Other personnel not employed by the third-party auditor firm (e.g. facility personnel or employees of another consulting firm with specialized expertise) – these personnel are not required to meet the competency and/or independence criteria of the rule.

EPA agrees with commenters who suggest that allowing facility personnel and other knowledgeable but non-independent contractors and consultants to participate in the audit would improve the audit teams' performance and outcomes. This change will address, among other things, the commenters' concerns that requiring the audit team and all of its individual members to meet the full independence criteria would exclude too many potential team members with critical sector or facility-specific experience. This approach will allow qualified personnel from other regulated facilities or company employees to participate in the audit and enable facility personnel to provide input during the compliance audit.

Although some commenters suggested that facility's existing internal audit process provided an audit of equal or greater value than that of a third-party, EPA believes that an independent, third-party perspective can provide insight on the facility's RMP that may not otherwise be identified during an internal compliance audit. EPA further disagrees that this change to the RMP audit program will cause companies to separate RMP and PSM audits. EPA believes that the flexible approach for assembling a third-party audit that includes both independent and facility personnel will allow facilities to continue to conduct RMP and PSM audits simultaneously, as appropriate.

2.2.10. Auditor qualifications and responsibilities

Comment: Many commenters stated that the requirements in the proposed rule for every member of the third-party auditing team to individually meet all of the proposed rule's competency and independence criteria will severely reduce the number of qualified auditors available and raise the costs of auditing for facilities. A facility argued that the auditor qualification requirements are arbitrary and should be withdrawn. Specifically, the commenter describes the findings from the EPA-Wharton Pilot Study on Third-Party Audits and concludes that this study undermines EPA's assertion in the proposed rule that rigid qualifications are necessary for a successful third-party audit program for RMP (0492). A professional association recommended that EPA require that companies develop, implement, and maintain effective policies, procedures, and programs for performing RMP audits (0477).

EPA Response: EPA agrees with commenters that the proposed qualification criteria could limit availability of qualified auditors and raise costs of audits. Therefore, EPA is finalizing an approach that allows owners or operators to comply with third-party auditing requirements either by engaging third-party auditors that meet all applicable competency and independence criteria, as originally proposed; or by assembling an auditing team, led by a third-party auditor, that includes other personnel (e.g., consultants or facility employees).

EPA disagrees with commenters who argue that auditor qualifications are unnecessary for a successful third-party audit program. EPA's goal, in proposing criteria for auditor qualifications, was to ensure clarity and objectivity as to the minimum expected standards third-party auditors must meet for competency and independence. Since EPA is not finalizing requirements for third-party auditors to be qualified or accredited by an outside independent accreditation board, nor to meet competency and independence criteria in external consensus standards or protocols, the final rule must necessarily specify third-party auditor competency and independence criteria. Such criteria are necessary to ensure that owners and operators are able to successfully identify and engage fully qualified, competent and independent third-party auditors.

2.2.11. Consensus standards and protocols

Comment: A local government agency stated that setting a standard and protocols for auditing would assist in ensuring that a third-party audit is being performed to some type of recognized standard. However, the commenter stated that it is not aware of the establishment of such a standard at this time and noted that EPA might be required to work with a standard setting organization to develop the standard, if such a standard was to be provided to facilities and auditors (0450).

Without specifically commenting on how the consensus standards should be incorporated in a third-party audit requirement, an industry trade association noted that guidelines are currently available, such as the CCPS "Guidelines for Auditing Process Safety Management Systems," that can be used as references for auditing and auditing protocols (0528). A professional organization commented that National Fire Protection Association (NPFA) codes and standards are used by industry to fulfill the purpose and intent of recognized and generally accepted good engineering practices (RAGAGEP) (0533).

As an example of a program that relies on consensus standards, a facility referenced California's Underground Storage Tank (UST) program, in which designated operators are required to pass an exam administered by the International Code Council (ICC) in order to be certified to conduct audits. The commenter noted that the ICC also administers exams for building, fire, pluming, and many other trade inspectors (0552).

An industry trade association commented that it opposed a requirement that consensus standards and protocols be incorporated into compliance audits and asserted that such a requirement was not within the scope of EO 13650 (0495). A few commenters, including a local government agency, noted that consensus standards may result in the bar for acceptable procedures being set low (0443, 0450). Although noting that consensus standards could offer some minimum criteria to follow, a commenter stated that applying consensus standards to third-party compliance audits could be problematic because they are the lowest high-bar industry has agreed to, which runs the risk of lowering the bar for select companies or the consultants hired to perform the audit (0443).

A Federal government agency suggested that EPA develop detailed guidelines, or identify best practices, for performing third-party compliance audits to ensure that auditing is standardized across facilities (0428).

EPA Response: EPA acknowledges that consensus standards and protocols are referenced in a range of federal and state regulations and can play useful roles in third-party verification programs. As discussed in the preamble to the rule, California's UST program is an example of a program that relies on consensus standards in which designated operators are required to pass an exam administered by the ICC in order to be certified to conduct audits.[8] However, EPA has determined that reference to such standards and protocols is unnecessary for third-party compliance audits conducted under this rule because the final rule will identify qualification criteria for competency and independence for third-party auditors and third-party auditor team leaders.

The third-party auditor responsibilities will be included in the final rule in §§ 68.59(d) and 68.80(d). These sections will provide the third-party auditor with minimum expectations for conducting the compliance audit, and require that the owner or operator shall ensure that the third-party auditor:

- Manages the audit and participates in audit activities including: initiation, design, implementation, and reporting;
- Determines appropriate roles and responsibilities for the audit team members;
- Prepares the audit report and ensures all audit team members' views are reflected in the final audit report;
- Certifies the final audit report and its contents as meeting the requirements of the rule; and
- Provides a copy of the audit report to the facility owner or operator.

Third-party auditors must evaluate the audit team members' qualifications to determine appropriate audit roles and responsibilities in order to produce audit outcomes and final audit reports meeting the applicable rule requirements. This approach recognizes that audit team members may have varying levels of knowledge and experience with the RMP rule requirements, the stationary source being audited, the applicable or relevant engineering practices, and proper auditing techniques. EPA believes it is appropriate for the third-party auditor to be responsible for these determinations and that this approach allows the owners or operators and the third-party audit team leader to successfully collaborate to assemble an effective auditing team.

2.2.12. Proposed Professional Engineer requirement

Comment: Some Professional Engineer (PE) organizations supported the proposed requirement, stating that the facilities requiring auditing are designed, constructed, and maintained by PEs, who provide professional ethics and objectivity (0313, 0316, 0328, 0331, 0344). A few of these commenters added

[8] *See, e.g.*, CA UST Regulations (CCR, Title 23, Division 3, Chapter 16), Amended and Effective July 1, 2012) at § 2715 (Certification, Licensing, and Training Requirements for Underground Storage Tank Owners, Operators, Installers, Service Technicians, and Inspectors). http://www.swrcb.ca.gov/ust/regulatory/docs/title23_d3_c16.pdf

that the supply of PEs is sufficient to meet the demand. An individual recommended that the PE requirement should be extended to RMP auditors at the state and local level (0412). A facility suggested simply requiring a PE to be included on the audit team (0508).

However, a large number of commenters opposed the proposed requirement that a third-party auditor, or a member of the audit team, be a licensed PE. Many commenters stated that they saw no value in requiring a PE because PEs do not specifically have process safety or auditing skills (0335, 0442, 0443, 0450, 0453, 0465, 0473, 0481, 0494, 0598). Others specifically favored retaining the current rule to avoid the costly proposed provision (0447, 0569). Several commenters questioned whether there are a sufficient number of PEs with appropriate experience to meet the need for RMP audits (0406, 0462, 0495, 0512, 0527, 0535, 0544, 0550). As an industry trade association observed, even though the number of PEs may be large, there may be an insufficient number of PEs that have third-party audits as an area of expertise (0528). A facility asserted that every PE cannot practice in every state, and if a PE is part of the audit team, he or she must be licensed in the state affected by the RMP incident (0531).

Many commenters suggested that professionals with PSM experience who have other credentials such as Certified Safety Professionals, Certified Industrial Hygienists, Certified Fire Protection Specialists, Certified Hazardous Materials Managers, or Certified Process Safety Auditors should be allowed because they also must follow ethical standards and would give facilities a larger choice (0435, 0445, 0463, 0477, 0478, 0497, 0502, 0510, 0521, 0530). One facility asserted that neither the administrative record for this rulemaking, nor the real world realities of auditing justify a requirement for a PE, because licensure as a PE is not an appropriate measure of auditor competence (0492). Another facility and an industry trade association argued that the owner or operator is in the best position to assess who is qualified to perform the audit (0464, 0500).

Two commenters characterized the EPA-Wharton Pilot Study on Third-Party Audits[9] as suggesting that relevant industry and process specific experience, training, and regulatory knowledge are the essential qualifications of RMP auditors and that the PE requirement should be withdrawn (0492, 0579).

An industry trade association did not think that a PE was needed as an auditor, but if that provision was finalized, the commenter asked that the PE should be able to be a company employee (0594).

> **EPA Response:** EPA agrees with the commenters that, in the context of this specific rulemaking, it is unnecessary for third-party auditors to be PEs and that a variety of qualified personnel can potentially be effective third-party auditors or third-party audit team leaders. Consequently, EPA is deleting the PE requirement from the final rule. EPA believes it is sufficient for the third-party auditor or third-party audit team leader to be:
>
> - Knowledgeable with the requirements of the RMP rule;

[9] EPA conducted a pilot study with the Wharton School of the University of Pennsylvania on the efficacy of voluntary third-party RMP audits. For relevant reports from this pilot, see R. Barrish, R. Antoff, & J. Brabson, Dep't of Natural Resources & Env. Control, Third-Party Audit Pilot Project in the State of Delaware, Final Report (June 6, 2000) and EPA Region 3, Third-Party Pilot Project in the Commonwealth of Pennsylvania, Final Report (February 2001).

- Experienced with the stationary source type and processes being audited and applicable RAGAGEP; and

- Trained or certified in proper auditing techniques.

Third-party auditors can meet the requirement to be knowledgeable with the RMP rule requirements, and the requirement to be experienced with the stationary source type and processes being audited and applicable RAGAGEP through a variety of ways, including prior experience and training. Third-party auditors can meet the requirement to be trained or certified in proper auditing techniques by completing courses in environmental or safety auditing, obtaining certifications from recognized professional bodies, or having prior process safety auditing experience.

EPA is also establishing third-party auditor responsibilities in §§ 68.59(d) and 68.80(d). If the third-party auditor believes that a necessary skill or expertise is lacking in the auditing team, the owner or operator and third-party auditor will be responsible for augmenting the audit team with the additional team members needed to supply the missing skill or expertise. For example, an owner or operator may choose to designate an employee competent in using an infrared camera to participate on a third-party auditing team. Such an audit team member would be acceptable, even though the individual does not meet the independence criteria and lacks specific knowledge of the stationary source type and processes being audited, as long as the third-party audit team leader evaluates the employee's qualifications to perform the specific role the employee will perform in the audit. The same standard would also apply to the participation of any other personnel the owner or operator might choose to include when assembling the third-party audit team.

2.2.13. Third-party auditor independence criteria

2.2.13.1. Proposed auditor independence and impartiality requirements

Comment: A few commenters, including a Federal and two local government agencies, supported the proposal, including provisions for ensuring auditor independence (0428, 0450, 0453). However, many commenters opposed the proposed third-party auditor independence criteria. Several commenters warned that the provisions will be difficult to monitor and enforce (0462, 0492, 0494, 0530, 0529). Commenters warned that the provision would have the unintended consequence of reducing the quality of the audit (0335, 0475, 0477, 0598, 0571, 0587, 0592, TRANS-15, TRANS-18). A few commenters suggested that the lack of ability for employees to participate on the audit team could lead to an adversarial relationship, inhibiting the impartial fact-finding an audit is supposed to facilitate (0461, 0462, 0536).

Many commenters added that the requirements severely reduce the number of qualified auditors available and raise costs for facilities (0458, 0463, 0473, 0481, 0489, 0497, 0512, 0522, 0535, 0579). An industry trade association suggested that facilities should be allowed to petition for a relaxation of these requirements if auditors cannot be identified (0524). Numerous commenters observed that consulting firms perform a wide variety of work for RMP facilities, of which only a small fraction is auditing, but the new restrictions and threat of liability may cause those firms to exit the auditing market rather than risk losing their other business lines (0441, 0447, 0465, 0484, 0492, 0521, 0531, 0532, 0536, 0582). An industry trade association recommended that EPA should eliminate the independence criteria other than prohibiting the auditor from having a financial interest in the audited operation (0581).

A few local agencies and a facility agreed that the proposed requirement for policies and procedures is appropriate (0450, 0453, 0552). An industry trade association stated that it did not agree with the proposed auditor independence criteria and so it concluded that the requirement is unnecessary (0528). A facility expressed its belief that the language in the current regulation is adequate to define roles and skills necessary for an audit (0569).

> **EPA Response:** EPA agrees that the proposed requirement for auditors to have written policies and procedures to ensure that all personnel comply with the applicable competency and independence requirements is helpful and necessary. These requirements will be retained in the final rule. EPA is also, as described earlier, retaining in the final rule express, simplified auditor competency and independence criteria. At the same time, EPA is modifying the third-party auditor independence criteria in the final rule to enable more firms and individuals to qualify as third-party auditors or third-party audit team leaders while modifying the final rule to ensure that the audit teams are managed and operated independently. These changes will address many of the public comments on the proposed rule by providing greater flexibility in selecting qualified auditors while continuing to produce the types of enhanced audit outcomes commonly associated with independent auditors per the literature and evidence described in the preambles to the proposed and final rules and in this document.
>
> EPA is making many significant changes to the third-party independence criteria. The most significant modification to the third-party audit requirements will be that only employees of the independent third-party audit firm must meet the independence criteria of §§ 68.59(c)(2) and/or §§ 68.80(c)(2). For third-party audit teams, the team leader must meet both the competency and independence criteria of paragraph §§ 68.59(c) and/or 68.80(c), and all other employees of the third-party auditor firm that participate on the team need only meet the independence criteria. Third-party audit teams may also include other personnel, such as consultants or facility employees, and these personnel will not be subject to the third-party qualification criteria of the final rule.
>
> EPA is also reducing the timeframe within which third-party auditors cannot provide business or consulting services to two years. EPA is also adding language indicating that if a third-party firm employs personnel who have provided business or consulting services to the facility within the prescribed timeframe (i.e. within two years of the audit), then the third-party audit firm must ensure that these personnel do not participate on the audit team. Additionally, EPA is clarifying in regulatory language the circumstances in which a retired employee may participate in a third-party audit. Viewed as a whole, these changes will serve to increase the types of personnel who may potentially serve as independent third-party auditors. Therefore, EPA believes it will be unnecessary for facility owners or operators to petition for a relaxation of auditor qualifications.

Comment: Many commenters opposed the proposed provisions for independence and impartiality, particularly the requirement that an auditor cannot have provided other consulting services to the owner or operator in the prior three years and cannot accept future employment for three years following submission of the final audit report. Some commenters stated that third-party auditing is entirely unnecessary for RMP facilities because there is no evidence to believe that internal auditors working for, or employed by, facility owners or operators would deliberately fail to conduct honest and complete

audits because of their prior, current, or future financial or employment ties to the owners or operators (0595, TRANS-10-2, 0598, 0481, 0538). Many commenters stated that to disqualify auditors who have performed certain services for the owner or operator of a facility within the past three years would disqualify those auditors who are most familiar with a source's operations, and facilities would be forced to select auditors who are unfamiliar with the facility and its processes (0407, 0464, 0483, 0500, 0527, 0555, 0588, 0595, TRANS-02, TRANS-16). Many commenters emphasized that audit teams should include personnel with direct, personal familiarity with the facility (including facility employees) to ensure effective RMP compliance audits (0492, 0407, 0529, 0544, 0550). A commenter stated that this could be of concern particularly for plants with complex engineered processes requiring site-specific expertise (0537).

> **EPA Response:** In response to these comments, in the final rule, EPA is modifying the three-year prohibition on auditors providing prior consulting services to (other than auditing services) or subsequently being employed by the owner or operator to a two-year prohibition. This prohibition will apply only to employees of the third-party auditor firm. Owners or operators can assemble a third-party audit team led by a third-party auditor that meets both the competency and independence criteria of the final rule. The third-party audit team can also include other non-independent personnel such as current or former employees of the facility or other persons with prior site-specific experience. This revision, itself, will enable a much broader and more diverse set of auditors to serve on the audit teams, including knowledgeable facility personnel, other personnel employed at different facilities owned by the regulated company, and a variety of second or third-party personnel such as consultants and contractors. Only employees of the third-party auditor firm leading the audit team will be subject to the independence criteria of the final rule, and only the individual leading the third-party audit team will be subject to both the competency and independence criteria of the final rule.

Comment: Some commenters, including industry trade associations, supported allowing company retirees to participate on audit teams (0476, 0495, 0517, 0528).

> **EPA Response:** EPA agrees with commenters. EPA is modifying the final rule to clearly identify that retired employees who otherwise satisfy the third-party auditor independence criteria may still qualify as independent if their sole continuing financial attachments to the owner or operator are employer-financed or managed retirement and/or health plans. This revision will clarify that owners or operators can hire retired employees with specialized knowledge or experience with the source type or facility to participate in third-party audits.

2.2.13.2. Effectiveness of self-audits

Comment: Three trade associations stated that EPA failed to adequately demonstrate through statistical or other analyses that the RMP rule's self-auditing requirement was deficient or that independent auditor certification is necessary. Some commenters stated that the proposed third-party auditing requirements and criteria are unnecessary because the record does not demonstrate widespread RMP self-auditing-related fraud (0550, 0492, 0492, 0529). One association referenced the CSB's report on the Texas City refinery accident as suggesting that management's failure to implement prior self-audit recommendations is of greater concern than self-audit inadequacy, per se. Some commenters stated that the Agency has not provided a study showing bias in self-audits that would be cured by transitioning to third-party audits or

provided an explanation or justification for its decision to break from two decades of agency practice (0492, 0537, 0579). An industry trade association stated that there is no evidence in the record to support what appears to be EPA's premise for the requirement, which the commenter describes as the assumption that third parties are more capable, more credible, or more objective than a facility's own employees (0550).

EPA Response: While third-party auditing is useful for minimizing the potential for fraudulent behavior or reporting, EPA believes that helping to prevent or minimize fraud is but one positive independent third-party auditing outcome. In fact, the third-party auditing requirements are intended to improve auditing practices and outcomes by also correcting biases shown by the literature to be associated with self-auditing. These bias are compelling precisely because they are not the hallmark solely of fraudulent firms but are exhibited commonly by entities with no overt or covert malicious intent to be inaccurate or unfair in their auditing or reporting.[10]

EPA disagrees with commenters that the proposed rule did not demonstrate that, in some cases, self-auditing is deficient. In the preamble to the proposed rule, EPA referenced enforcement settlements requiring third-party auditing of consent order/decree implementation and compliance at facilities handling CAA Section 112(r) chemicals. One such settlement is the administrative order on consent issued by Region 1, in 2015, to Mann Distribution LLC and 3134 Post Road LLC (Respondents) to address Resource Conservation and Recovery Act (RCRA) and CAA 112(r)(1) (the "general duty clause") violations found during an April 4, 2013 inspection at a chemical distribution facility in Warwick, Rhode Island. Like the RMP requirements, section 112(r)(1) of the CAA addresses safe operation and prevention of accidental releases. Unsafe conditions found during the inspection included, among other things, failure to have a fire suppression system, failure to inspect a fire alarm, co-location of incompatible chemicals, and many RCRA generator violations. The facility also had a prior history of non-compliance. The order required Respondents to, among other things, implement an independent third-party inspection program. The Respondents agreed to the program because they wanted to maximize the benefits of implementing the administrative order on consent by accelerating the improvement of the culture of compliance and safety at the facility.

Since the proposed rule was published, EPA has received and reviewed the Mann independent third-party inspection team's audit reports. These reports state that the third-party team found several compliance and safety issues the facility owner and operator had not independently found or corrected. The suite of audits uncovered and tracked the correction of these deficiencies. EPA has also received feedback from a facility representative and its third-party auditor about the program. All of the involved parties – EPA, facility representative, and the third-party auditor – agreed that the new and independent third-party auditing required pursuant to the enforcement order was beneficial for both correcting specific deficiencies and improving a culture of

[10] *See*, *e.g.*: (1) Short, Jodi L., and Michael W. Toffel, *The Integrity of Private Third-party Compliance Monitoring*, Harvard Kennedy School Regulatory Policy Program Working Paper, No. RPP-2015-20, November 2015. (Revised December 2015) http://www.hbs.edu/faculty/Pages/item.aspx?num=50186; (2) Lesley K. McAllister, *Regulation by Third-Party Verification*, 53 B.C. L. Rev. 1 (2012). http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=3182&context=bclr; (3) Esther Duflo et al., Truth-Telling by Third-Party Auditors and the Response of Polluting Firms: Experimental Evidence From India, 128 Q.J. Econ. 1499, 1499 (2013) http://qje.oxfordjournals.org/content/128/4/1499.abstract.

compliance. The suite of four third-party inspections improved the company's hazardous materials management plan, plan implementation, and emergency response program. As of March 2016, corrections to issues identified by the third-party auditors produced safer storage of chemicals that are oxidizers; improved integrity testing and maintenance of chemical storage tanks; better emergency egress, training, and coordination with the fire department; and improvements in container storage (such as better labeling and more aisle space). After a year of audits, the audit team leader provided some constructive suggestions about how EPA could modify third-party audit requirements in the future. For example, she felt that one of the order's auditor independence criterion (a five-year ban on future work with the company) was excessive as such a requirement, in light of New England's contracting manufacturing/industrial market, might serve as a disincentive to the participation as third-party auditors by highly qualified professionals and firms. Also, although this order did not require that the audit team include a PE, the auditor said she was aware that EPA was considering requiring PEs for future audits and believed that such a requirement would be unnecessary because good practice suggests that team make-up and qualifications should be determined on a case-by-case basis.

EPA agrees with the commenters stating that auditors with facility-specific experience can contribute insights that independent auditors lacking such experience would be unlikely to contribute. EPA is addressing this comment in the final rule by, among other things, modifying the final rule to allow owners or operators to include non-independent employees, contractors, or consultants with facility-specific experience on the third-party auditing teams.

EPA continues, however, to believe that the "fresh eyes" and perspectives that third-parties contribute to audit teams supports the approach in this rule to third-party auditing for the small subset of RMP facilities that have RMP reportable accidents or conditions at their stationary sources that could lead to an accidental release of a regulated substance. This finding is supported by the body of literature on, and empirical analyses of, independent third-party auditing referenced in the preamble to the proposed rule. In this context and to further address the above public comments, in the preamble to the final rule, EPA assesses and describes further empirical research suggesting why independent auditors lacking prior facility-specific experience can actually produce better audit outcomes than personnel with prior site-specific experience. This research buttresses EPA's findings in the proposed rule's preamble that independent personnel are more likely to audit the facilities they monitor with "fresh eyes" and thus can be more likely to identify issues of concern. While the research that follows primarily involves government inspectors, EPA believes that the findings correlate to designing effective third-party auditing programs.

One such study concerns the relationship of inspector experience and product recalls in the medical device industry.[11] The study's authors explain:

> "Plant inspections enable supply chain partners to manage quality risk in global supply chains. However, surprisingly little research examines the behavioral aspects of

[11] Ball, George and Siemsen, Enno and Shah, Rachna; *Inspector Experience and Product Recalls in the Medical Device Industry* (June 2, 2014). Available at http://ssrn.com/abstract=2445022 or http://dx.doi.org/10.2139/ssrn.2445022 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2445022

> inspectors' work. Drawing on insights from the experience, learning, and complacency literatures, we examine the how well plant inspection outcomes predict future recalls and analyze the effect of inspector experience on both the information content of plant inspections as well as the prevalence of product recalls. Using secondary data spanning a 7-year period in the medical device industry and a recurrent event Cox Proportional Hazard model, our results show that inspection outcomes contain information and hence predict future product recalls, and that this relationship is moderated by inspector experience. … [T]he hazard of recalls at a plant increases if the same inspector continues to inspect the plant, independent of the inspection outcome. Recall hazard increases by 48% the second time an inspector visits a plant, and 63% by the third visit. These results indicate the need to rotate inspectors among plants and have important implications for managers, regulatory agencies, and theory."

The authors' views on the drivers for these outcomes are informative. Although significant literature exists indicating that sending the same auditor or inspector to repeatedly inspect a facility can lead to familiarity, that weakens an auditor's independence and compromises audit outcomes, [12] these were not, the above study's primary findings. Rather, the authors found that the worsening inspection outcomes over time were likely primarily due to inspector complacency. In the authors' words,

> "The stale, routine nature of the job, and the familiarity which comes from repeat visits to a site, can lead to complacency and lower the information contained in an inspection, even when the investigator has no clear incentive to 'go easier' on an inspection site."

These complacency effects "may outweigh the benefits [such repeat visits have on inspector] learning." Another analysis of 426,831 unannounced inspections by state government inspectors from July 2003-March 2010 found that new inspectors tend to have "fresher eyes" in their first visit to a restaurant, reporting 12.7-17.5% more violations than the second visit of a repeat inspector, and that this effect is more pronounced when the previous inspector had a longer relationship with the restaurant.[13]

Findings such as these, and the policy implications that flow from such studies, address human behavioral and psychological influences that appear to cross-cut across inspection and auditing regimes. Thus, although not expressly required by this rule, EPA encourages owners or operators, when assembling both third-party audit teams and conducting self-audits under the RMP rule, to include on their teams a mix of personnel previously familiar, and unfamiliar, with the specific facilities they are tasked with auditing.

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[12] *See, e.g.,* Abigail Brown and Edmond J Safra; *The Economics of Auditor Capture*, Center for Ethics, Harvard University (Nov. 8, 2011) at https://abigailbrown.files.wordpress.com/2009/08/auditor-capture-111108.pdf ("[T]here does not need to be an explicit exchange of bribes to sustain a collusive equilibrium, suggesting that social norms and psychological biases reinforce rational action and allow profitable collusion to occur with little conscious intent." Id. at Abstract)

[13] Ginger Zhe Jin & Jungmin Lee, *A Tale of Repetition: Lessons from Florida Restaurant Inspections*, National Bureau of Eco. Research Working Paper No. 20596 (Oct. 2014).

Finally, EPA agrees with commenters that it is critical that facility owners and operators implement corrective actions to address findings from compliance audits. Therefore, the final rule will require the owner or operator to certify in the findings response report that deficiencies are being corrected. As an additional measure to ensure accountability, EPA is also requiring a copy of the findings response report and schedule to implement deficiencies to be submitted to the auditing committee of the Board of Directors or other comparable committee or individual, if applicable.

2.2.13.3. Validity of examples of third-party audits

Comment: Several commenters, including industry trade associations, stated that EPA has not provided evidence that the existing framework is insufficient (0476, 0492, 0537, 0554, 0555, 0594). An industry trade association argues that the isolated examples that EPA provides as justification for the need for third-party auditors, which the commenter notes all relate entirely to a different industry than is regulated under the proposed rule, prove that in the vast majority of cases internal audits are performed with appropriate vigor, integrity and honesty (0529). Similarly, an industry trade association noted that EPA provides no evidence directly related to compliance with the RMP rule or the regulated stakeholders (0536). Another industry trade association commented that EPA has not shown that a third-party audit would have prevented past accidental releases (0537). An industry trade association stated that EPA has not demonstrated that the current RMP auditing procedures create a substantial risk of harm or are insufficient in preventing accidental chemical releases (0476).

An industry trade association commented that the other compliance assurance programs that EPA points to in support of the proposed third-party audit provisions fall short and do not justify the proposed framework. In addition to other arguments, the commenter asserted that EPA merely cites that these other programs exists, but does not provide any data suggesting that they prove that third-party auditors offer advantages. Furthermore, the commenter distinguished the other programs from the RMP program and concluded that EPA cannot identify other Federal audit programs involving such a costly, invasive, complex third-party inspection and enforcement scheme as proposed here (0537). The associations further stated that there is no evidence showing:

- A systemic problem with RMP facilities' self-audits or that employees or contractors act unethically or are biased;
- A lack of auditor independence creates bias leading to accidents;
- Third-party audits would have successfully prevented past accidental releases; or
- The root causes of a significant number of past accidents at RMP facilities were deficient self-audits (0358, 0363, 0537).

EPA Response: EPA disagrees with commenters. Because RMP facilities were not previously required to have third-party compliance audits, statistically valid outcome data specifically on RMP rule third-party auditing does not currently exist. As EPA has described, however, there is a considerable and growing body of literature and empirical data on the effectiveness of third-party auditing, generally. These literature and data occur in many contexts that involve a diverse set of statutes and voluntary standards. In fact, some of these contexts are contextually similar to RMP auditing.

In the preamble to the proposed rule, EPA presented many examples of Federal and state agencies and trade association third-party verification programs. Like the RMP rule, some of those programs are expressly described by their managers as designed to improve regulatory compliance, prevent or reduce risks, or improve safety at the same or similar facility types and operations as are regulated by the RMP rule. These programs reflect industry recognition that third-party auditing does, in fact, produce better outcomes relative to self-auditing in a variety of settings. Such programs include:[14]

- *Responsible Care*. This program is described by the American Chemistry Council (ACC) as identifying, and acting to address, potential hazards and risks associated with their products, processes, distribution and other operations.[15] Responsible Care's Guiding Principles include "mak[ing] continual progress toward a goal of no accidents, injuries or harm to human health and the environment from products and operations and openly report health, safety, environmental and security performance."[16] The Responsible Care management system process includes mandatory certification, by auditors described by ACC as accredited and independent, to ensure the program participants have a structure and system in place to measure, manage and verify performance.[17] The Responsible Care website provides, "A key part of the Responsible Care Management System process is mandatory certification by an independent, accredited auditor."[18]
- *The API Process Safety Site Assessment Program (PSSAP*). According to API, the PSSAP "is focused on higher risk activities in petroleum refining and petrochemical facilities. This program primarily involves the assessment of a site's process safety systems by independent and credible third-party teams of industry-qualified process safety expert assessors."[19] Using industry-developed protocols, API describes the process safety site assessments as evaluating the quality of written programs and effectiveness of field implementation for the following process safety areas that will be evaluated: Process Safety Leadership; Management of Change (MOC); Mechanical Integrity (focused on fixed equipment); Safe Work Practices; Operating Practices; Facility Siting; Process Safety Hazards; and HF Alkylation/RP 751.[20]

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[14] EPA has not formally evaluated these programs and standards or their outcomes. This discussion is not a formal Agency review or endorsement.

[15] ACC. 2012. Responsible Care Product Safety Code. https://responsiblecare.americanchemistry.com/Product-Safety-Code/.

[16] ACC Responsible Care Guiding Principles. https://responsiblecare.americanchemistry.com/ResponsibleCare/Responsible-Care-Program-Elements/Guiding-Principles/.

[17] Certification must be renewed every three years, and companies can choose one of two certification options. RCMS® certification is intended to verify that a company has implemented the Responsible Care Management System. RC14001® certification combines Responsible Care and ISO 14001 certification. See http://responsiblecare.americanchemistry.com/Responsible-Care-Program-Elements/Management-System-and-Certification and http://responsiblecare.americanchemistry.com/Responsible-Care-Program-Elements/Process-Safety-Code/Responsible-Care-Process-Safety-Code-PDF.pdf.

[18] ACC. 2016. https://responsiblecare.americanchemistry.com/Management-System-and-Certification/.

[19] API. 2015. PSSAP. http://www.api.org/~/media/Files/Certification/PSSAP/PSSAP-Brochure.pdf?la=en.

[20] API. 2015. PSSAP. http://www.api.org/certification-programs/process-safety-site-assessment-programs.

- *Center for Offshore Safety (COS).* This strategy for promoting safety and protection of the environment includes third-party auditing and certification of the COS member company's Safety and Environmental Management Systems (SEMS) and accreditation of the organizations (Audit Service Providers) providing the audit services. The Center serves the US offshore oil & gas industry with the purpose of adopting standards of excellence to ensure continuous improvement in safety and offshore operational integrity. The third-party audits are intended to ensure that COS member companies are implementing and maintaining SEMS throughout their deepwater operations.[21] COS states expressly that "the highest level of safety for offshore drilling, completions, and operations [is promoted through] independent third-party auditing and certification."[22]
- *ChemStewards*®. ChemStewards is a SOCMA program intended to promote continuous performance improvement in batch chemical manufacturing. The program offers a three-tiered approach to participation. Each tier includes a third-party verified management system.[23] On its website, SOCMA describes the environmental benefits of the program as including improving environmental performance, decreasing releases and waste disposal costs, and positioning members to meet current and future compliance requirements.[24] The associated training materials explain the on-site audit elements of the third-party verification program.[25]

Additionally, the supporting literature and data described by EPA in the proposed rule preamble remain relevant to RMP compliance auditing, notwithstanding the varied contexts they describe, because such literature addresses cross-cutting human biases and behaviors, common to all auditor and audit types, that can be addressed or corrected through independent third-party auditing.[26] EPA thus finds that the state of the science, evidence, and data on the effectiveness of independent third-party auditing programs supports requiring independent third-party audits for RMP facilities with accidental releases or conditions that could lead to an accidental release of a regulated substance.

2.2.14. Third-party audit report

[21] COS. 2013. *See* http://www.centerforoffshoresafety.org/auditInfo.html.
[22] COS. 2015. *See* http://www.centerforoffshoresafety.org/About.
[23] SOCMA. 2015. *See* http://www.socma.com/ChemStewards/.
[24] SOCMA, 2016. *See* Benefits of Implementing ChemStewards®. http://www.socma.com/chemstewards/about/benefits.
[25] SOCMA. *See* http://www.socma.com/Portals/0/Files/ChemStewards/ChemStewards_101_Training.pdf.
[26] *See, esp.*: (1) Short, Jodi L., and Michael W. Toffel, *The Integrity of Private Third-party Compliance Monitoring*, Harvard Kennedy School Regulatory Policy Program Working Paper, No. RPP-2015-20, November 2015. (Revised December 2015) http://www.hbs.edu/faculty/Pages/item.aspx?num=50186; (2) Lesley K. McAllister, *Regulation by Third-Party Verification*, 53 B.C. L. Rev. 1 (2012). http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=3182&context=bclr; (3) Esther Duflo et al., Truth-Telling by Third-Party Auditors and the Response of Polluting Firms: Experimental Evidence From India, 128 Q.J. Econ. 1499, 1499 (2013) http://qje.oxfordjournals.org/content/128/4/1499.abstract.

2.2.14.1. Content of the audit report

Comment: A commenter stated that the audit report should document which prevention programs are adequate and are being followed, instead of only summarizing the findings (i.e., the deficiencies) (0443).

> **EPA Response:** Compliance audits reports normally focus on identifying deficiencies and responses to them. The final rule will contain various requirements for the audit report. They will include a requirement to document the findings of the audit, including any identified compliance or performance deficiencies. They will also include, in §§ 68.59(e)(3) and 69.80(e)(3), a requirement to document the auditor's evaluation, for each covered process, of the owner or operator's compliance with the provisions of this subpart to determine whether the procedures and practices developed by the owner or operator under this rule are adequate and being followed.

2.2.14.2. Requirement to submit reports prior to facility review and requirement to submit draft reports

Comment: A local agency agreed with the proposed provision requiring submission of draft reports (0453). Many commenters, however, including industry trade associations and facilities, expressed concern about EPA's proposal to require third parties to submit their reports to the implementing agency at the same time, or before, the reports are sent to the source because this would prevent facilities from being allowed to correct factual errors or present evidence that the auditors either missed or were not aware of, which could markedly change the audit's recommendations (0336, 0475, 0476, 0484, 0489, 0494, 0497, 0535, 0537, 0544). Some of the commenters added that the owner or operator should be able to ensure that the audit report does not contain CBI (0477, 0530, 0544, 0559, 0562, 0588). A professional organization and a local agency opposed distribution of audit reports to EPA and warned of the potential release of CBI (0477, 0487). A commenter stated that audit reports should be sent to the appropriate local/state/Federal regulatory agencies (0443). Local agencies recommended retention of at least the last two audit reports (0450, 0453).

> **EPA Response:** EPA agrees with the commenters that, in the context of this rule, it is not necessary to require the third-parties to submit their reports to the implementing agency at the same time, or before, the reports are sent to the source. EPA is deleting the provisions in the proposed rule that would have required the third-party auditors to submit their audit reports to the implementing agency. The final rule, instead, will require owners or operators to retain at the stationary source the two most recent final third-party audit reports, related findings response reports, documentation of actions taken to address deficiencies, and related records.

Comment: Many commenters, including facilities, professional organizations, and industry trade associations, commented that a requirement to submit draft reports before they have been vetted by internal operations and management teams could have the unintended consequence of incomplete or inaccurate information being distributed (0335, 0336, 0435, 0477, 0487, 0495, 0512, 0527, 0528, 0529). A state agency inquired about an apparent conflict between the provision about directing the third-party auditor to release the audit report and the provision requiring the auditor to submit the report (0446).

Some industry trade associations and facilities commented that the proposed requirement to document all changes made by the owner or operator to audit report drafts is unacceptable, reasoning that such a requirement will chill communications and information exchange during audits (0484, 0537, 0497, 0560,

0587). A trade union suggested that employees should be involved in reviewing the audit report and developing a schedule for addressing deficiencies (0519).

> **EPA Response:** EPA agrees with commenters. The final rule will require the third-party auditor to prepare an audit report and provide it to the owner or operator, but will not require that the draft or final reports be submitted to the implementing agency. However, the third-party auditor must summarize in the audit report any significant revisions between draft and final versions of the report.

2.2.14.3. Legal privileges

Comment: Many commenters, including facilities and industry trade associations, opposed EPA's proposal to prohibit companies from asserting attorney-client privilege and attorney work product privilege over third-party audits and related documents (0492, 0494, 0497, 0598, 0508, 0512, 0521, 0524, 0527, 0528). The commenters argued that EPA lacked authority to do this and that the privileges are essential for purposes of legal representation. One local agency, however, agreed with EPA that there is no need to have the audit report under attorney-client privilege (0453). An industry trade association stated that attorney-client privilege is a long-established common-law rule of evidence, and asserted that any attempt to abrogate it across the board is likely a violation of the Sixth Amendment (0555). Similarly, another industry trade association stated that the proposed limitations on attorney-client privilege seem contrary to due process and legal rights that should be afforded the owner or operators of the facility (0571).

Several commenters, including a facility, and an industry trade association, argued that EPA lacks authority to eliminate judicially recognized evidentiary privileges. These commenters argued that EPA lacks authority to prohibit companies from asserting attorney-client privilege and attorney work product privilege (0492, 0529). A facility noted that in the history of Federal environmental law, no other EPA regulation has attempted to abrogate legal privileges. The commenter also asserted that Congress, through the Rules Enabling Act, has granted full authority to the courts to determine legal privilege. The commenter stated that the preamble is silent on EPA's new found source of authority to sweep away these privileges. Furthermore, the commenter asserts that EPA's attempt to prohibit assertions of privilege conflicts with its own position in other CAA regulations, the Any Credible Evidence Rule, in which EPA acknowledges that it should defer to the courts on evidentiary issues (0492).

> **EPA Response:** It remains EPA's position, as stated in the preamble to the proposed rule, that with respect to the attorney work product privilege, the audit report and related records are produced to document compliance. Audit reports and related records are similar to other documents prepared pursuant to RMP rule requirements (e.g., process safety information, PHAs, operating procedures) and are not produced in anticipation of litigation. With respect to the attorney-client communication privilege, the third-party auditor is arms-length and independent of the stationary source being audited. The auditor lacks an attorney-client relationship with counsel for the audited entity. Therefore, neither the audit report nor the records related to the audit report provided to the third-party auditor, including documents originally prepared with assistance or under the direction of the audited source's attorney, should be considered attorney-client privileged. However, because EPA is no longer requiring owners or operators to submit

their audit reports, final or draft, to the implementing agency, we are eliminating the provision pertaining to attorney-client privilege.

2.2.15. Findings response report, timeframe, and response to audit findings

2.2.15.1. 90-day timeframe for developing findings response report

Comment: A few commenters, including local government agencies and a facility, commented that the proposed timeframe of 90 days to develop a findings response report was appropriate (0450, 0453, 0552).

A union urged EPA to shorten the timeframe allowed for developing the findings response report from 90 days to 30 days. Arguing that deficiencies in compliance indicate a risk of a catastrophic release that could harm the facility, its employees, and the community, the commenter reasoned that 30 days is enough time to review the audit report and develop a schedule to address deficiencies (0519).

In contrast, many commenters, including a local government agency, facilities, and industry trade associations, argued that 90 days was an insufficient timeframe (0492, 0529, 0579, 0489, 0495, 0598, 0530, 0528, 0537). A few commenters asserted that, depending on the nature of the finding, the process of selecting a corrective measure could require comparison of several alternatives and could require detailed engineering work and/or coordination of many departments in a complex facility (0492, 0489). A facility argued that EPA should extend the timeframe and asserted that EPA has not demonstrated that a 90-day period to develop a findings response report is achievable (0489). A local government agency recommended a 180-day timeframe, reasoning that this extended period is needed to allow the owner or operator time to clarify any questions associated with the audit finding or recommendation, evaluate various options, verify the implementability of and associated timelines for corrective action, and ultimately assure a workable response to each finding (0530). A few industry trade associations recommended a six-month timeframe for submission (0529, 0495). As an alternative to extending the timeframe for all facilities, a few industry trade associations and a facility urged EPA to consider allowing facilities to obtain extensions as needed to adequately address the concerns raised by third-party auditors (0492, 0529, 0579).

> **EPA Response:** EPA is finalizing the requirement that the owner or operator prepare a findings response report as soon as possible, but no later than 90 days after receiving the final audit report as proposed. EPA believes this timeframe will be appropriate for the owner or operator to consider the findings of the audit report and determine a response to each of the audit's findings. This approach will allow the owner or operator an opportunity to establish a schedule to implement corrective actions that can extend beyond the 90-day period for developing the findings response report and balance the need to promptly respond to the audit findings. EPA notes that, in many instances, an owner or operator may receive prior information about the audit's findings before receiving a final audit report, particularly when the third-party audit team includes facility personnel. This will give the owner or operator additional time to consider its responses.

2.2.15.2. Submitting a findings response report

Comment: A few commenters, including an industry trade association and a facility, expressed opposition to a requirement to submit a findings response report to EPA (0489, 0528). A facility

commented that EPA has not demonstrated a need for universal submission of an action plan to respond to audit findings and schedule, noting that EPA has not shown that other statutory mechanisms at the EPA's disposal are in any way inadequate (0489).

An industry trade association argued that the requirement violates the Due Process clause of the Fifth Amendment by forcing facility owners or operators to accept and address inspection results without clear processes to protect the due process rights of those subject to the audits (0537).

Several commenters, including industry trade associations and a facility, commented that there needed to be a mechanism by which audited companies could dispute any purported violations or deficiencies identified by third-party auditors (0495, 0492, 0579). The commenters asserted that refusing to afford companies the opportunity to dispute audit findings raises fundamental due process concerns (0579, 0492).

> **EPA Response:** EPA agrees with the commenters that it is not necessary to require the findings response reports to be submitted to the implementing agency per this rule and is eliminating the requirement from it. The audit report, findings response report and related records must be retained at the stationary source in accordance with the recordkeeping requirements in §§ 68.59(g) and 68.80(g).
>
> Eliminating the requirement to submit the findings response report to the implementing agency will also respond to commenters legal concerns. In addition, facility owners or operators will not be required to accept all audit findings. Owner or operators will be required to determine an appropriate response to each of the audit report findings. This is similar to existing self-compliance audit requirements for the owner or operator to promptly determine and document an appropriate response to each of the findings of the compliance audit. As such, there will be no need for a process to dispute findings.
>
> In determining an appropriate response, owners or operators may follow EPA's existing guidance for addressing PHA team findings and recommendations, which is based on OSHA's *29 CFR 1910.119, Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures* for resolving such findings.[27] Under these guidelines, EPA considers an owner or operator to have resolved a finding or deficiency when the owner or operator either has adopted or implemented the associated recommendations or has justifiably declined to do so. An owner or operator can justifiably decline to adopt a recommendation where the owner or operator can document, in writing and based upon adequate evidence, that one or more of the following conditions is true:
>
> - The analysis upon which the recommendation is based contains material factual errors;
> - The recommendation is not necessary to protect public health and safety or the health and safety of the owner or operator's employees, or the employees of contractors;

[27] See page 7-7 of EPA's General Guidance on Risk Management Programs for Chemical Accident Prevention (40 CFR Part 68), EPA-550-B-04-001, April 2004 https://www.epa.gov/rmp/guidance-facilities-risk-management-programs-rmp; and replacement pages B-21 and B-22 of OSHA 29 CFR 1910.119, Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures CPL 2-2.45A CH-1, September 13, 1994 https://www.osha.gov/OshDoc/Directive_pdf/CPL02-02-045_CH-1_20150901.pdf.

- An alternative measure would provide a sufficient level of protection; or
- The recommendation is infeasible.

Where a recommendation is rejected, the owner or operator must communicate this to the audit team and expeditiously resolve any subsequent recommendations of the team.

2.2.16. Owner or operator certification to findings response report

2.2.16.1. Certification burden

Comment: A few commenters, including industry trade associations and facilities, expressed opposition to the proposed certification requirement (0492, 0529, 0579, 0489). An industry trade association and a facility commented that the certification requirement was unnecessary and burdensome, reasoning that the Federal criminal code and Section 113(c)(2) of the CAA already makes it a crime to knowingly and willfully lie to EPA. The commenters argued that, in light of existing laws, the certification requirement increases the regulated community's burden, but provides no corresponding benefit (0492, 0579). An industry trade association and a facility urged EPA to incorporate the "reasonable inquiry" concept from Title V compliance certifications into the proposed certification framework, if EPA chose to finalize the proposed requirement. The commenters described the "reasonable inquiry" concept as requiring certification based on "information and belief formed after reasonable inquiry[.]" The commenters argued that this was necessary because a single senior official signing a certification could not be expected to obtain personal knowledge of all the facts potentially relevant to the response to the RMP audit (0492, 0579). Similarly, a facility encouraged EPA to coordinate the certification statement in this rule with the certification statement that is already required under Title V of the CAA (0489).

An industry trade association stated that EPA's rules regarding self-audits impose a less stringent certification requirement, and recommended that a similar standard may be more appropriate if the third-party compliance audit provisions are finalized (0529).

Without focusing on a specific aspect of the proposal, an industry trade association asserted opposition to any requirement that compelled senior corporate officers, financial audit committees, or Boards of Directors from participating in the audit response process. The commenter asserted that the involvement of these individuals was inappropriate because they likely have little or no subject-matter expertise in the RMP rules, the specific RMP-regulated processes, or the technical audit findings in question. The commenter also asserted that EPA does not hold itself to such standards for senior personnel and that involvement of these individuals could raise corporate law concerns (0598).

EPA Response: In this rule, EPA is requiring a senior corporate officer, or an official in an equivalent position, to certify in the findings response report that:

- He or she engaged a third-party to perform or lead an audit team to conduct a third-party audit in accordance with the requirements of 40 CFR §§ 68.59 or 68.80,
- The attached RMP compliance audit report was received, reviewed, and responded to under the senior officer's direction or supervision by qualified personnel, and
- Appropriate responses to the findings have been identified and deficiencies were corrected, or are being corrected, consistent with the requirements of subpart C of 40 CFR part 68.

EPA believes these requirements and the associated certification are important to ensure that the certifying official is familiar with, and responsible for, the submitted reports. The certification requirements in this rule will be consistent with equivalent certification requirements in many EPA regulations, including in the CAA Title V regulations (40 CFR § 70.5(d).[28])

EPA agrees that senior corporate officials do not necessarily have high levels of technical expertise; however, these officials and entities include key managers responsible for establishing internal corporate accountability and overseeing corporate prioritization, budgeting, and operations. Indeed, the Security and Exchange Commission (SEC) requires other specified documents to be provided to such individuals, committees, and boards for similar reasons.[29] Finally, EPA believes that the certification will minimize corporate failures to properly address and implement compliance audit findings and recommendations. Adopting a less stringent standard would not be appropriate. EPA expects that the senior corporate official certification of the audit findings will improve facility and public confidence that third-party audit report findings and recommendations are promptly and properly addressed.

2.2.16.2. Certification by senior corporate officer

Comment: After describing various legal arguments in opposition to the proposed requirement for a certification of accuracy in the audit findings response report, an industry trade association and a facility provided two recommendations for improvement to the certification framework, as proposed, which the commenters thought were necessary if EPA insisted on finalizing a certification requirement. First, the commenters urged EPA to clarify who it intends to count as a "senior corporate officer, or official in an equivalent position." The commenters recommended that EPA incorporate the "responsible official" definition from the CAA's Title V operating permit program for major stationary sources, which allows for certification by corporate leadership or a "duly authorized representative" appointed by corporate officials (0492, 0579).

A facility commented that the certification requirement risks infringing on the senior corporate official's Fifth Amendment privilege against self-incrimination. The commenter stated that the Supreme Court has held that the privilege protects against compulsory disclosures to the government when those disclosures have "the direct and unmistakable consequences of incriminating" the disclosing party, and concluded that the proposed certification requirement may compel precisely those sorts of disclosures. The commenter went on to state that the certification necessarily admits the existence of "deficiencies" which can only be interpreted as violations of the CAA and which could certainly be a significant link in a chain of evidence tending to establish guilt in a criminal case (0492).

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[28] "(d) Any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[29] Under Section 3(a)(58) of the Exchange Act as added by Section 205 of the Sarbanes-Oxley Act, the term audit committee is defined as "[a] committee (or equivalent body) established by and amongst the board of directors of an issuer for the purpose of overseeing the accounting and financial reporting processes of the issuer and audits of the financial statements of the issuer" (if no such committee exists with respect to an issuer, the entire board of directors of the issuer). *See* Securities and Exchange Commission (SEC), 17 CFR 240.10A-3 - Listing standards relating to audit committees (68 FR 18818, Apr. 16, 2003, as amended at 70 FR 1620, Jan. 7, 2005; 73 FR 973, Jan. 4, 2008).

A facility also argued that the certification requirement raises First Amendment concerns by compelling speech that does not serve a sufficient government interest to avoid running afoul of the right to free speech. The commenter states that to compel speech EPA must demonstrate three things: (1) that its asserted interest is substantial, (2) that the regulation directly and materially advances that interest, and (3) that the regulation is narrowly tailored to that interest. The commenter concludes that these criteria have not been satisfied, particularly because it is unclear what government interest the certification advances (0492).

EPA Response: EPA disagrees with the recommendation to allow delegation of the certification to a duly authorized representative. The certification will indicate that the compliance audit report was received, reviewed, and responded to under the senior corporate officer's direction or supervision by qualified personnel. Similar to the requirement to submit the findings response report to the audit committees of the Board of Directors, a senior corporate official ensures accountability and oversees corporate prioritization, budgeting, and operations. Furthermore, the language of the certification will cite the actions that are taken by the owner or operator pursuant to these requirements, and include, among other things, a statement that based on personnel knowledge and experience, or inquiry of personnel involved in evaluating the report findings and or inquiry of personnel involved in evaluating the report findings and determining appropriate responses to the findings, the information submitted herein is true, accurate, and complete. The certification will not contain an acknowledgement of a violation, and the certification and report will not be required to be automatically submitted to the implementing agency. This language will be equivalent to the language in certifications that support submissions under Title V of the CAA. EPA continues to believe that it is important for a senior corporate official, or an official in an equivalent position, to sign such a certification, ensuring that the owner or operator is aware of the findings and responses, and will be correcting the deficiencies, pursuant to these requirements. For smaller entities without corporate officials, the official in an equivalent position for purposes of this requirement may include the owner or operator, or designated representatives of the owner or operator, including facility manager, operations manager, or another official at or above that level.

Third-party audits will be called for under the rule when there has been a reportable accident, or when required by an implementing agency due to conditions at the stationary source that could lead to an accidental release of a regulated substance. Such an incident or conditions can be an indicator of an ineffective accident prevention program. The fact that prior self-audits had either not detected a weakness in the prevention program or that recommendations from prior audits had not been addressed well enough to prevent the incident supports requiring fresh, independent eyes of a third-party auditor to conduct the next audit after the incident, and the involvement of senior officials of the stationary source regarding the findings. There is a substantial interest in ensuring that, when a third-party audit is required, a third-party audit is conducted, the audit report was received, reviewed, and responded to by the facility, and appropriate responses to the findings have been identified and deficiencies are being corrected, consistent with the requirements of subpart D of 40 CFR part 68.

The requirement for a senior corporate officer, or an official in an equivalent position, of the owner or operator of the stationary source to make such a certification directly and materially

advances that interest, as it will ensure that the owner or operator is aware of the findings and responses, and will be correcting the deficiencies, pursuant to these requirements.

This certification requirement will be narrowly tailored to that interest, and the language will closely track the actions that such officials and facilities perform under the third-party audit provisions, including engaging a third party; receiving, reviewing, and responding to the audit report; and identifying appropriate responses to findings and correcting deficiencies.

2.2.17. Schedule implementation

Comment: A few trade associations expressed support for the proposed schedule to address deficiencies, which the commenters described as requiring "prompt" action to take corrective action (0495, 0528). Similarly, a few commenters, including industry trade associations and a facility, commented that there should be no specific timeframe specified for addressing deficiencies identified during a third-party audit, reasoning that there will be a wide variety of possible site-specific actions that an owner or operator may take to address audit findings (0528, 0569, 0495). A facility noted that a 6-month timeframe may be reasonable for some audit identified program deficiencies (e.g., operating procedures, hot work, contractor safety), but that correcting deficiencies that require engineering and equipment acquisition could take longer than 6 months (0569). An industry trade association recommended that EPA allow stationary sources to develop a reasonable schedule for correcting audit findings that would be based on the types of audit findings and the resulting efforts to implement them appropriately, rather than at a pace that may impede sound and sustainable implementation processes (0528). Another industry trade association commented that it was appropriate to require "prompt" correction of deficiencies, but encouraged EPA to provide guidelines on what would be considered "prompt" action (0495).

In contrast, some commenters recommended specific timeframes for addressing deficiencies. A professional organization recommended that deficiencies be corrected "promptly" and no later than six months absent a written extension from EPA (0532). A few commenters, including a state government agency, a facility, and local government agencies, recommended that facilities be required to promptly implement corrective actions and that deficiencies be addressed within 1.5 years (0450, 0453, 0552, 0586). However, some of these commenters stated that facilities should be given the opportunity to request an extension, if needed, from the implementing agency (0450, 0453, 0552). An industry trade association recommended that facilities be given 24 months to correct deficiencies after the facility has identified an appropriate response. The commenter recommended that this requirement be coupled with the concept that, to the greatest extent possible, deficiencies presenting the highest risk of injury be addressed first and in a timely manner (0537).

A facility commented that the proposal does not account for the likelihood that plans and schedules for addressing deficiencies may need to change. To account for needed changes, the commenter recommended that EPA should clarify that the details of the schedule are not binding (0489).

A union recommended that EPA require that employees and their representatives be involved in reviewing the audit report and developing the schedule for addressing the deficiencies (0519). A facility stated that the schedule for correcting the deficiencies should be the responsibility of the designated person with the overall responsibility for the development, implementation, and integration of the RMP elements (0569).

EPA Response: EPA disagrees with commenters that suggested incorporating a prescribed schedule for addressing findings in the final rule, and we are finalizing the schedule implementation provisions of §§ 68.59(f)(2) and 68.80(f)(2) as proposed. The owner or operator's third-party audit findings response report must include "a schedule for promptly addressing deficiencies" but does not prescribe a specific timeframe or due dates by which the deficiencies must be addressed. Thus, under the final rule, the owner or operator must exercise best judgement to determine how, and when, to prioritize and address actions, consistent with the normal definition of "promptly" as meaning quickly, without delay.[30] EPA finds that this approach will best provide the flexibility that owners or operators will need to address a potentially very wide range of deficiencies and other findings noted in third-party audit reports. This will allow the facility owner or operator to develop a reasonable schedule for correcting audit findings that would be based on the types of audit findings and the resulting efforts to implement them appropriately.

EPA also disagrees with commenters' suggestions to request a schedule extension from the implementing agency. The implementing agency will not receive a copy of the final audit report or findings response report and therefore it is inappropriate to request an extension to address deficiencies identified in the findings response report. In the event that a schedule must change due to unforeseen circumstances, EPA recommends that the owner or operator document the reasons for the change and update the schedule to reflect revised dates.

2.2.18. Submitting reports to the Board of Directors

Comment: A few local government agencies expressed agreement with the proposed requirement to provide the audit report and the action plan to address deficiencies to the Board of Directors, reasoning that it will make the Board of Directors aware of the deficiencies (0453, 0450). One local government agency also noted that the requirement will allow the Board of Directors the opportunity to properly budget for corrective actions (0453).

Several industry trade associations and a facility expressed opposition to a requirement that the findings response report be provided to the audit committee of the Board of Directors (0559, 0528, 0497). Several industry trade associations stated that the requirement would unduly constrain facilities that may have other processes to involve facility leadership in responding to findings from third-party audits (0559). Similarly, an industry trade association reasoned that this requirement subverts company policy established under RMP's management provisions and that RMP would be most effective if each company is allowed to determine the most appropriate chain of command and reporting. The commenter also warned that such a requirement could set a precedent for other regulatory programs, which could result in Boards of Directors receiving a deluge of technical information that they do not have time to address and that they are in no position to interpret (0551).

A state government agency recommended that EPA provide definitions for Board of Directors and audit committee to avoid ambiguity in the requirement to submit the findings response report and associated documents to the owner or operator's audit committee of the Board of Directors, or other comparable

[30] *See* definition of promptly, Cambridge English Dictionary, at http://dictionary.cambridge.org/us/dictionary/english/promptly.

committee. The commenter also recommended that EPA specify a timeframe for this report to be submitted to the Board's audit committee, reasoning that the requirement, as proposed is ambiguous and impracticable to audit. Furthermore, the commenter urged EPA to address how this requirement would be documented as completed or what documentation would be required to demonstrate that the owner or operator does not have an audit committee or comparable committee (0446). Several commenters, including facilities and industry trade associations, opposed the proposed requirement to submit the audit report to the Board of Directors because it is generally unnecessary or inappropriate to do so (0464, 0489, 0494, 0524, 0551, 0562, 0569, 0594).

EPA Response: Boards of Directors and their audit committees play an important role in establishing internal corporate accountability and overseeing corporate prioritization, budgeting, and operations. EPA believes that providing the facility's owner or operator's audit committee of the Board of Directors with third-party audit findings will ensure the committees and their Boards of Directors are aware of any deficiencies and have the opportunity to properly budget for any required corrective actions in a timely manner. EPA expects that this approach will improve facility and public confidence that third-party audit report findings and recommendations are promptly and properly addressed.

Therefore, the final rule will require the owner or operator to immediately, upon its completion, provide to the audit committee of the Board of Directors, or other comparable committee or individual, if applicable a copy of the findings response report, which includes a copy of the final audit report, an appropriate response to each of the audit report findings; and a schedule for addressing deficiencies; and copy of any document required under §§ 68.59(f)(2) or 68.80(f)(2), documenting the actions taken to address each deficiency. EPA does not agree that we should define Board of Directors and audit committee. Facility owners or operators should consider their corporate structure to determine if there is, in fact, a committee or individual that may serve to oversee auditing and compliance oversight. The closing clause in §§ 68.59(f)(3) and 68.80(f)(3), "if applicable," will replace the corresponding language in the proposed rule, "if one exists." "If applicable," in this context, is intended to clarify that owners or operators that do not have, or who are not otherwise required by law to have, an audit committee of the Board of Directors or that have not otherwise, established or designated a comparable committee or individual, will not be subject to the requirements in §§ 68.59(f)(3) and 68.80(f)(3).

Finally, in response to concerns about demonstrating compliance with this requirement, EPA recommends that the facility document how the owner or operator complied with this requirement and maintain that documentation with the findings response report. This may include identifying who received a copy of the report and the date it was provided. If there is no audit committee of the Board of Directors or a comparable committee or individual, then the owner or operator should consider documenting that no committee or individual exists.

2.2.19. Other comments on the findings response report requirements

Comment: A local government agency suggested that the third-party auditor review the company's plan to address deficiencies to determine if the actions are addressing the auditor's findings and recommendation from the audit (0450).

Among other recommendations for revision, a professional organization recommended that the findings response report identify the team responsible for implementing corrective actions and require periodic, documented management review of the status of action items that includes a senior manager with responsibilities for the site (0477).

> **EPA Response:** EPA agrees with commenters that it is critical that facility owners and operators implement corrective actions to address findings from compliance audits. Therefore, the final rule will require the owner or operator to certify in the findings response report that deficiencies are being corrected. As an additional measure to ensure accountability, EPA is also requiring a copy of the findings response report (which includes a schedule to address deficiencies) to be submitted to the auditing committee of the Board of Directors or other comparable committee or individual, if applicable. EPA is not, though, requiring the third-party auditor to review the owner/operator's findings response report to determine if the actions are addressing the auditor's findings and recommendation from the audit. In fact, to remain independent, the third-party auditor should not play a role in addressing the deficiencies its own auditing identified or in determining if the owner or operator's plan to address the deficiencies is adequate.

2.2.20. Third-party audit recordkeeping

Comment: A facility expressed support for the proposed recordkeeping requirements related to third-party audits (0552). With the exception of the required location for retention and the requirement to retain copies of draft audit reports, a facility expressed support for the proposed recordkeeping requirements associated with third-party audits (0528).

Some commenters, including facilities, industry trade associations, and a professional organization, opposed the requirement to retain copies of the draft audit report (0435, 0477, 0489, 0492, 0528, 0551, 0583, 0594). To avoid duplication and confusion, a professional organization commented that EPA should allow for the destruction of draft reports and audit notes after the final audit report is issued (0477). A facility stated that there are already mechanisms in place within the rule to ensure that the audit report is valid and that retaining a copy is unnecessary (0435). Similarly, a facility argued that it is impractical and costly to impose a duty upon RMP facilities to monitor third-party auditors' maintenance of drafts (0492).

A few commenters, including a facility and an industry trade association, opposed the requirement that records be retained at the stationary source (0489, 0528). A facility stated that EPA should not specify the physical location where records must be retained, reasoning that this requirement would unduly restrict the locations where records may be kept and does not recognize that the world has entered an era of electronic records (0489).

A union recommended that facilities be required to retain third-party audit reports for the life of the processes involved (0519).

A commenter opposed the requirement that the auditor retain copies of all audit reports and related records for a period of five years, reasoning that these provisions are neither appropriate or applicable (0583).

EPA Response: EPA agrees with commenters that it is not necessary for owners or operators to maintain draft audit reports as regulatory records. Therefore, EPA is not finalizing the proposed requirement for owners or operators to retain copies of all draft third-party audit reports. EPA agrees with the commenter that objected to the requirement that the auditor retain copies of all audit reports and related records, and is also not finalizing proposed requirements for third-party auditors to retain audit reports and related records.

The final rule will require that the owner or operator retain as records certain documents at the stationary source, including the two most recent final third-party audit reports, related findings response reports, documentation of actions taken to address deficiencies, and related records. The final audit report also must include a summary of any significant revisions between draft (if any) and final versions of the report.

The final rule also will require the owner or operator to retain records at the stationary source in order to ensure that records are readily available to stationary source staff to review and utilize and for implementing agency inspectors to access during site inspections. These documents may be retained at the stationary source electronically as long as they are immediately and easily accessible at the stationary source and the owner or operator retains the signed original documents, where appropriate.

2.2.21. Other comments

Comment: A facility encouraged EPA to correct what they described as a grammatical error within §§ 68.58 and 68.79(a). Specifically, the commenter stated that these sections say that the owner or operator shall certify that "they," which the commenter says is plural, have evaluated compliance by conducting an audit. The commenter urged EPA to change the language to "it" to make it clear that only one of the entities needs to have conducted an audit (0489).

EPA Response: EPA is not making this recommended revision. Both the owner and operator are responsible to evaluate compliance with the prevention program requirements of the rule and we do not believe that this language has been confusing. However, to clarify, we do agree that as long as the

Comment: A facility urged EPA to revise the proposed wording in §§ 68.58(a) and 68.79(a) that indicates that compliance audits should review compliance with the entire RMP rule, rather than "this subpart," which the commenter described as a change from the original wording of the rule. The commenter noted that there is no indication or discussion in the proposed rule preamble of the intention to expand any compliance audits (0560).

EPA Response: EPA notes that the scope of compliance audits will neither be expanded or contracted. There was no indication or discussion in the proposed rule preamble of the intention to expand any compliance audits. The scope of third-party compliance audits is the same as the scope of existing compliance audits. Such audits address "compliance with the provisions of this subpart" which, for Program 2 processes, is subpart C of part 68, and for Program 3 processes, is subpart D of part 68.

Comment: A commenter encouraged EPA to consider explicitly adding to the scope of the compliance audits assessing or auditing the conformance of a covered process with the RAGAGEP provisions of § 68.65(d)(2)-(3), reasoning that the safety of facilities could be enhanced by a more structured and focused audit of facilities for their compliance with codes and standards (0583).

> **EPA Response:** Compliance audits, and third-party compliance audits, of Program 3 processes evaluate compliance with Subpart D prevention program requirements, which includes § 68.65.

Comment: Local agencies agreed with EPA's suggestion for requiring owners and operators to provide advance notice to the implementing agency of third-party auditor visits (0450, 0453).

> **EPA Response:** While EPA is aware of other programs and rules which require such advance notice to regulators of third-party auditor activities or visits, there will be no such requirement included in the final rule.

2.3. Safer technology and alternatives analysis

2.3.1. Applicability

2.3.1.1. Support for proposed applicability of safer technology and alternatives analysis provisions

Comment: A number of commenters, including a state agency and an environmental advocacy coalition of approximately 140 commenters, expressed general support for the proposal to require a STAA to improve process safety (0507, 0575, 0586). A few facilities expressed support for limiting the requirement to only the industries mentioned in the proposed rule (0535, 0542), citing cost and resource burdens, and some stated that the analysis would be of no benefit for their facility because a Federal permit requires it to use certain processes (0535). An industry trade association expressed support for the exclusion of stationary sources under NAICS code 211112 (0528).

> **EPA Response:** In this rule, EPA is finalizing the STAA provisions as proposed, which limits applicability of the STAA requirements to Program 3 processes in the petroleum refining, chemical manufacturing, and paper manufacturing sectors.

2.3.1.2. Recommendations to revise or further justify proposed applicability of safer technology and alternatives analysis provisions

Comment: Many commenters, including multiple mass mail campaigns joined by approximately 42,060 commenters, state agencies, advocacy groups, and an industry trade association, urged that EPA expand the number and types of facilities under the Risk Management Plan (RMP) that would be required to conduct STAA (0371, 0406, 0360, 0603, 0575, 0574, 0470, 0521, 0467, 0578, 0597, 0480). Several commenters, including a few local agencies and an association of government agencies, stated that all Program 3 facilities should be subject to STAA requirements (0443, 0450, 0453, 0510). A commenter suggested that EPA should apply the assessment requirement to all hazardous release industries covered by CAA section 112(r) (0488).

A few commenters asserted that limiting the requirement to certain NAICS sectors would exempt other sectors that pose a significant threat to the public (0334, 0434, TRANS-12). Many commenters, including an environmental advocacy coalition of approximately 140 commenters, requested that EPA

provide a substantial and credible justification for exempting certain facilities from STAA requirements if it chooses to do so in the final rule (0575).

A number of commenters, including a professional organization and an environmental advocacy coalition of approximately 140 commenters, expressed concern that the facilities EPA uses as examples to justify the STAA requirement in the NPRM would not be covered by the actual requirement because they fall under sectors exempt from the proposed requirement (0536, 0575, 0574, TRANS-23, 0360).

Commenters, including an environmental advocacy coalition of approximately 140 commenters, expressed concern that the proposed rule arbitrarily determines which industries have feasible and worthwhile alternatives, and which communities and facilities would benefit from STAAs (0575, TRANS-23). Many commenters, including a mass mail campaign joined by approximately 17,250 commenters, recommended that EPA require assessment and implementation for certain RMP categories and industries where safer alternatives are feasible or well demonstrated (0467, 0470, 0480, 0334, 0406, 0574, 0575, TRANS-23), or those that fall within EPA's existing high-risk category (0480). Some commenters suggested that EPA implement a pilot program requiring implementation of safer technologies for a subset of sectors considered extremely high risk, such as water treatment plants or hydrogen fluoride refineries (0315, TRANS-04). Two advocacy groups, a Federal agency and a union recommended prioritizing RMP covered facilities based on worst case scenarios which show the population in a vulnerability zone (0470, 0360, 0428, 0519). However, according to a union, using location as a basis for the requirement could put certain facilities at a disadvantage if others in their industry are sited differently and not subject to the requirement (0519). A trade association argued that it would be inappropriate to establish a requirement for any manufacturing sector and should instead focus on a particular hazard or scenario (0551).

An industry trade association said that the NAICS was not developed with the intention to determine whether or not a business should be subject to Federal regulation (0571). An industry trade association expressed concern that by applying the requirement only to certain NAICS codes, EPA is making it possible that there will be future rulemakings (TRANS-21).

An industry trade association remarked that a risk-based approach should be adopted more widely throughout the proposed rule, and suggested that applicability of the STAA requirement should be based on whether a process is "simple" or "complex" (0554). Another commenter elaborated, stating that the STAA requirement should be limited to stationary sources with complex manufacturing of petroleum, chemicals, and paper, or stationary sources with accident history, and said that sources that sell or distribute regulated substances should be exempt (0572).

> **EPA Response:** In this rule, EPA is finalizing the STAA provisions as proposed, which limits applicability of the STAA requirements to Program 3 processes in the petroleum refining, chemical manufacturing, and paper manufacturing sectors. EPA does not believe that the final provisions have been limited arbitrarily, or that the Agency's decision to limit applicability of the STAA provisions to the petroleum refining, chemical manufacturing, and paper manufacturing sectors implies that other sectors do not have viable safer technology alternatives. In the proposed rule, EPA acknowledged that most RMP-regulated sectors could identify safer technologies and alternatives. However, the Agency proposed to limit the applicability of the STAA provisions to facilities in complex manufacturing sectors with high accident rates. EPA

took this approach in order to target these provisions to the industrial sectors with the potential to achieve the greatest safety improvements through consideration of safer technology alternatives. EPA explained that sources involved in complex manufacturing operations have the greatest range of opportunities to identify and implement safer technology, particularly in the area of inherent safety, because these sources generally produce, transform, and consume large quantities of regulated substances under sometimes extreme process conditions and using a wide range of complex technologies. Therefore, such sources can often consider the full range of inherent safety options, including minimization, substitution, moderation, and simplification, as well as passive, active, and procedural measures. Further, EPA noted that RMP facilities in the three selected sectors have been responsible for a relatively large number of accidents, deaths, injuries, and property damage and have significantly higher accidents rates as compared to other sectors.[31]

While EPA does not believe it is necessary to require all sources, all Program 3 sources, or all sources in industry sectors where feasible safer technology alternatives have been identified to perform an STAA, the Agency encourages such sources to consider performing an STAA, and to determine practicability of IST or ISD considered, even if they are not subject to the STAA provisions of the final rule. We note that the use of NAICS codes (or their predecessors, SIC codes) to describe industry sectors has precedent in regulations and statutes (*see* 42 U.S.C. 11023(b)(1)(A)).

EPA does not agree that only sources with large worst-case scenario populations, or only sources on EPA's high risk facility list should be required to comply with the STAA provisions. EPA believes it is not appropriate to apply the STAA provisions only to sources with specified worst case scenario populations for several reasons. First, EPA's OCA requirements allow regulated facilities to use any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the modeling conditions specified in the rule and are recognized by industry as applicable as part of current practices. This flexibility can result in two similar facilities obtaining significantly different endpoint distances (and vulnerable zone populations) simply through choosing different modeling techniques. By linking the STAA requirement to the worst-case scenario, EPA could inadvertently cause some facilities to recalculate their OCA using a different modeling approach, simply to avoid the STAA requirement, and without actually implementing process changes that might reduce the facility's worst case scenario. Second, linking the STAA requirement to large worst case scenario populations would effectively bias the applicability of the requirement to facilities in densely populated areas, and potentially exempt equally hazardous facilities in or near less densely populated communities. Third, this application of the STAA requirement would disregard the criteria that EPA has used in the proposed rule – accident history and facility complexity, which EPA believes provide a stronger rationale for limiting the applicability of the requirement. Lastly, distribution of worst-case scenario population information is restricted under the CAA, and this would effectively prohibit the public from knowing which facilities are required to perform an STAA.

[31] For more information see EPA. January 27, 2016. Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs under the Clean Air Act, Section 112(r)(7).

For similar reasons, EPA does not agree with commenters' suggestions to develop a pilot program to apply to a subset of high risk facilities or to apply the STAA requirement to facilities on EPA's high risk facility list. This list is generated, in part, using worst case scenario population information (chemical quantities and accident history are also considered, although sector accident frequency is not), and therefore the list may not be publicized by EPA.

2.3.1.3. Incident rate data/accident rate methodology

Comment: A few commenters expressed concern that the proposal to require STAAs from only three NAICS codes is based on an incorrect approach to and interpretation of incident rates (0334, 0536, 0337, 0551, TRANS-23, 0579). A Federal agency and an industry trade association suggested that the EPA could rely on other data sources to determine which industries pose significant risks to the public in the event of a release, such as owner/operator submitted offsite consequence data (0337, 0551, 0579, 0428). An industry trade association commented that looking at the number of accidents per facility does not allow for direct comparisons as it does not account for the relative number of employees at a facility (0551). An industry trade association remarked that EPA's methodology ignores not only the size of the facility but also the quantity of chemicals and the number of covered process units at a given facility (0579).

Commenters argued that EPA should recalculate this value using the number of accidents per hours worked or the number of accidents per full time worker, and reasoned that such a calculation would be more consistent with the incident rate calculations conducted by the OSHA and the Bureau of Labor Statistics (BLS) (0551). A professional organization suggested that EPA should use the worst-case scenario release data it has collected to require all facilities that pose a significant public risk to conduct STAAs, rather than using the number of incidents per facility (0360).

Another commenter stated that EPA's use of routine incident rates in selecting industry sectors to conduct STAAs was faulty because frequent smaller incidents cannot be used to reliably predict infrequent catastrophic events (0334).

An industry trade association expressed concern that EPA ignored comments that it submitted in response to the Request for information (RFI) related to incident rate calculation methodology (0579). These comments noted that the petroleum refining sector has the lowest incident rate of all of the sectors in the economy, based upon 2012 BLS total recordable incident rates, which are the number of job-related injuries and illnesses per 100 fulltime employees (0579).

EPA Response: EPA acknowledges that there were other possible methods of selecting industry sectors that would be subject to STAA requirements. All of the methods offered by commenters – normalizing accident rates by FTE (i.e. BLS recordable incident rates), number of process units, chemical quantities, etc. – were considered but ultimately rejected by the Agency. EPA does not believe normalizing accident rates by FTE or chemical quantity is appropriate because prior research has shown that the interaction between these factors and incident rates is complex, and that none of these variables, by itself, is a suitable proxy for the relative risk of a catastrophic

chemical release incident at a facility.[32] Personal injury incidents measured by OSHA statistics (e.g., OSHA lost workday injury and illness rates) are different than catastrophic chemical release incidents. Most of the incidents measured in these OSHA metrics involve single-person injuries (e.g., overexertion, sprains and strains, slips, trips, falls, injuries due to contact with objects and equipment, etc.).[33] Therefore, the number of such incidents generally scales directly with the number of employees at a worksite. This is not necessarily true for chemical release incidents, where a single serious incident can impact a large number of people, not all of whom are employed by the stationary source. In other words, facilities with more employees are more likely to suffer higher amounts of "lost workday" injuries, but not necessarily higher numbers of chemical release incidents.

Furthermore, EPA chose not to normalize accident rates by the number of process units for two reasons. First, regulated sources have significant discretion in determining covered process boundaries - some petroleum refineries and large chemical manufacturing facilities containing numerous unit process operations have chosen to consider their entire plant as a single covered process, while other similar plants have divided their stationary source into dozens of different covered processes. Therefore, normalizing accident rates by the number of processes could result in a less accurate reflection of a sector's historical accident propensity. More importantly, even if a higher accident rate at a large facility is due, in part, to the facility having more covered processes, that fact does not reduce its risk to the surrounding community. In fact, the relatively higher risk from such sources further warrants their consideration, and potential application, of safer alternative technologies.

EPA disagrees that the agency used "routine" incident rates to select industry sectors covered by the STAA provision. Accidents meeting EPA reporting criteria include accidental releases from covered processes that result in deaths, injuries, and significant property damage on-site, and known offsite deaths, injuries, evacuations, sheltering-in-place, property damage and environmental damage. EPA believes that such accidents generally either resulted in, or could reasonably have resulted in, a catastrophic release of a regulated substance, and are therefore an appropriate criterion to consider when identifying industrial sectors that may benefit public safety the most by analyzing safer alternative technologies.

2.3.1.4. Whether it is appropriate to limit applicability of safer technology and alternatives analysis to the paper manufacturing (NAICS 322) sector

Comment: An industry trade association urged EPA to remove the STAA requirement for the paper manufacturing sector. The industry trade association stated that paper manufacturing should not be considered a "complex" manufacturing process, and cited EPA's Technical Background Document which, according to the commenter, does not categorize paper manufacturing facilities as "complex". Additionally, the commenter remarked that the paper manufacturing industry has a much lower level incident risk than other sectors, and stated that of the roughly 15,000 offsite injuries mentioned by EPA,

[32] Elliott, M.R., Kleindorfer, P.R., and Lowe, R.A., The Role of Hazardousness and Regulatory Practice in the Accidental Release of Chemicals at U.S. Industrial Facilities, Risk Analysis, Vol 23, No. 5, 2003. Document No. EPA-HQ-OEM-2015-0725-0319

[33] See, e.g., "Nonfatal Occupational Injuries and Illnesses Requiring Days Away from Work, 2014", DOL, BLS, November 19, 2015. Available at http://www.bls.gov/news.release/osh2.nr0.htm.

the paper manufacturing industry was responsible for only 2. Citing Exhibit 6-4 of EPA's RIA, the commenter asserted that the entire U.S. paper manufacturing sector has been responsible for the fewest off-site injuries out of any industrial sector over the 10-year study period. This commenter concluded that implementing the requirement for the paper manufacturing industry would not enhance public safety, and that the paper manufacturing industry has made significant strides to increase safety procedures in recent years (0551).

EPA Response: EPA disagrees with the commenter that argued the paper manufacturing sector should be exempt from the STAA provision of the final rule because the sector has had fewer accidents with offsite injuries, or because the sector was not characterized as "complex" by EPA's economic analysis. While it is true that the paper manufacturing sector has had fewer accidents with offsite injuries than other sectors, this is partly due to the relatively small number of RMP facilities (70) in the paper manufacturing sector. Additionally, the great majority of the offsite injuries reported by RMP facilities resulted from a single accident at the Chevron Richmond refinery, therefore it is inappropriate to compare offsite injuries from the paper manufacturing sector to the total of all offsite injuries that occurred during the ten-year period analyzed.[34]

More importantly, offsite injury is only one of several types of accident consequences that require reporting under the RMP rule. Other reportable consequences include deaths, injuries, and significant property damage on-site, and known offsite deaths, evacuations, sheltering-in-place, property damage and environmental damage. When all RMP-reportable accident consequences for a sector are considered, and normalized by the number of sources in the sector, the paper manufacturing sector has the second highest accident rate among all sectors regulated under the RMP rule. EPA believes this approach is a better gauge of the historical accident propensity for a sector than considering only accidents with offsite injuries.

While it is also true that EPA did not characterize the paper manufacturing sector as "complex" for estimating the costs of most rule provisions within the RIA, it did do so for purposes of the STAA provision, and arguably could have done so for all rule provisions. Paper manufacturing facilities, and particularly large integrated pulp and paper mills, are clearly more complex than most other RMP facilities, which only involve chemical storage (e.g., agricultural ammonia distribution facilities) or simple chemical processes (e.g., water treatment). The main purpose for EPA's broad characterization of certain sectors as "complex" and all others as "simple" for certain rule provisions within the RIA was because the Agency judged that the cost of implementing those rule provisions would vary primarily by the complexity of the processes involved, and that a rough two-tier division of regulated sources (e.g., simple vs. complex) would suffice to establish cost estimates for those rule provisions. However, EPA did not use this two-tier division for purposes of estimating the costs of the rule's STAA provision. For the STAA

[34] According to the CSB, "approximately 15,000 people from the surrounding communities sought medical treatment at nearby medical facilities for ailments including breathing problems, chest pain, shortness of breath, sore throat, and headaches. Approximately 20 of these people were admitted to local hospitals as inpatients for treatment." CSB, January 2015, Final Investigation Report: Chevron Richmond Refinery Pipe Rupture and Fire, Chevron Richmond Refinery #4 Crude Unit, Richmond, California, August 6, 2012, Report No. 2012-03-I-CA, http://www.csb.gov/assets/1/16/Chevron_Final_Investigation_Report_2015-01-28.pdf.

provision, EPA included paper manufacturing as a sector that involves "complex manufacturing operations." EPA chose to apply the STAA requirement to sources involved in complex manufacturing operations because

> "these sources have the greatest range of opportunities to identify and implement safer technology, particularly in the area of inherent safety. These sources generally produce, transform, and consume large quantities of regulated substances under sometimes extreme process conditions and using a wide range of complex technologies." [35]

Comment: An industry trade organization stated that, upon normalizing the sector's accident rate to account for the number of process units and the diversity of facilities being compared, the accident rate for this sector is lower than for most other sectors (0579). The commenter expressed concern that EPA's proposal to subject this sector to the STAA requirement ignores the industry's significant recent safety improvements that EPA itself has noted in the NPRM (0579). Additionally, the commenter remarked that industries such as poultry have higher incident rates than petroleum refining or chemical manufacturing, even though these industries are not subject to the STAA requirement (0579).

EPA Response: EPA disagrees that its approach ignores recent safety improvements on the part of the petroleum refining sector. The Agency views the application of safer technology alternatives as an approach to hazard control that can be applied throughout the life-cycle of a facility. A facility's recent implementation of a safer technology alternative does not foreclose consideration of additional safer technologies in the future. Facilities that have already implemented safer technology alternatives should document their implementation in their next PHA, determine whether there is additional information that should be considered in their STAA, and continue to consider additional safer alternatives during subsequent PHA re-validation cycles.

EPA agrees that the poultry processing sector, when that sector is considered separately from other food and beverage industry sectors, has a slightly higher RMP facility incident rate than the petroleum refining sector. However, EPA did not include the poultry processing sector under the final rule STAA provision because the poultry processing sector, by itself, does not delineate a meaningful technological subgrouping of RMP facilities. Poultry processing facilities are just one of many different types of food and beverage manufacturing and processing facilities covered under the RMP regulation. The common technology among these facilities that results in their coverage under the RMP regulation is ammonia refrigeration. While EPA is aware that some RMP facilities in the poultry processing sector have had serious chemical accidents, the Agency does not believe that these accidents are usually related to the fact that these facilities process poultry. Rather, they generally relate to the design, maintenance, or operation of the ammonia refrigeration system at the facility, and are similar to the causes of accidents involving ammonia refrigeration systems at other types of food and beverage processing facilities. Therefore, when considering the accident rates of RMP-covered poultry processing facilities, EPA believes the proper approach is to combine RMP facilities in this sector with RMP facilities in all other sectors in the food and beverage industry, as indicated in the RIA for the final rule. When this is done,

[35] See 81 FR 13688, March 14, 2016.

the accident frequency for the food and beverage manufacturing sector is significantly lower than the accident frequency for the petroleum refining sector.

2.3.1.5. Whether to eliminate and/or exempt batch toll manufacturers

Comment: In the context of exempting batch toll processors from the IST analysis, some commenters recommended that processes governed by government agency specifications or through a contractual relationship with a customer should not be subject to the IST analysis provision because in these cases, the customer specifies the manufacturing process (0502, 0555). According to an industry trade association, the customer is subject to regulation, often from the U.S. Food and Drug Administration (FDA) or EPA. The industry trade association requested that EPA explicitly state in the body of the regulation that the STAA requirement would not apply to processes in whole or in part specified by a government agency or through any contractual obligation (0555).

EPA Response: EPA disagrees with the suggestion to exempt batch toll manufacturers from the STAA requirement. Safer technology alternatives include many options beyond chemical substitution. For example, IST could involve minimization of stored raw material chemicals, making process changes that make it less likely to release the chemical (moderation), or reducing complexity in the process that could make accidents more likely (simplification). Therefore, even where a contractual relationship or regulation requires a regulated batch toll manufacturing facility to use a particular regulated substance in specified quantities, owners and operators of batch toll manufacturing facilities should still consider other potential IST measures besides chemical substitution. The facility must also consider potential safer alternatives beyond IST, such as passive measures instead of or in combination with active measures, or active measures instead of procedural measures. Toll manufacturers may use RMP chemicals for purposes in addition to making a formulated product, such as for cleaning equipment, wastewater treatment or refrigeration, for which chemical substitution may not be prohibited by regulation or contractual relationship. Also, the final rule will not require regulated sources to implement IST or ISD considered, so there is no conflict between this final rule and other regulations that may apply to RMP-regulated facilities subject to STAA requirements. For example, an owner or operator would be in compliance with the STAA requirement to consider potential chemical substitution as part of an IST analysis if he or she determines that a chemical substitution is not practicable because the substitution is prohibited by another regulation The owner or operator would still need to consider other forms of IST plus passive, active, and procedural measures.

2.3.1.6. Applicability to water treatment facilities

Comment: Some commenters, including professionals and an environmental advocacy coalition of approximately 140 commenters, urged that water supply and wastewater treatment facilities should be subject to the proposed STAA provision (0516, 0518, 0574, 0575). A number of commenters expressed concern about threats posed by water and wastewater facilities and related operations (0334, 0516, TRANS-12). Many commenters, including an environmental advocacy coalition of approximately 140 commenters, asserted that technologically and economically feasible alternatives are available for water supply and wastewater treatment facilities (0434, 0450, 0467, 0516, 0575), and suggested that exploring the implementation of these alternatives would be beneficial for the safety of workers, personnel, and communities associated with the facilities (0434, 0516). A professional stated that the costs for water

facilities to convert to safer alternatives are feasible, and remarked that it is possible to adopt IST without disrupting operations (0516).

A few industry trade associations stated that STAA should not be applied to water facilities (0554, 0558). Industry trade associations and an association of governments remarked that any STAA requirement would be repetitive and counterproductive to water utilities that have already met the regulatory requirements of the Safe Drinking Water Act (SDWA) (0553, 0554, 0558). A state agency expressed opposition to any changes that would require IST under the CAA for utilities already regulated under the SDWA. The commenter warned that just because a chemical substitute is perceived to be safer and feasible does not mean it is allowed under other regulations (0530). An industry trade association concluded that drinking water utilities already have to consider a variety of public health and safety factors, and urged that EPA's consideration of what constitutes a "safer" technology should take this into account (0558).

> **EPA Response:** EPA disagrees with commenters who suggest subjecting water and wastewater treatment facilities to STAA requirements. EPA's approach to applying the STAA requirement was to identify industry sectors with the greatest accident frequency at RMP-regulated facilities within the sector, and with the greatest opportunity to apply STAA risk management measures. While EPA agrees that water supply and wastewater treatment facilities often have feasible alternatives available, according to RMP accident history data, the sector is among the least accident-prone sectors covered under the RMP. Therefore, the final rule will not apply the STAA requirement to the water and wastewater treatment sector.

2.3.1.7. Limit applicability to major process changes or after accidents

Comment: A few commenters want EPA to consider having a requirement similar to that required by Contra Costa County for facilities to conduct an STAA whenever major process changes are proposed and in the aftermath of accidents, when there are often significant opportunities for making process improvements as equipment is rebuilt or repaired (0360, 0450, 0586). One commenter noted that the Contra Costa Health Services (CCHS) program requires an Inherently Safer Systems Analysis (ISSA) during the design of new processes, for PHA recommendations, or for major changes resulting from incident investigation recommendations, root cause analysis or MOC review that could reasonably result in a major chemical accident or release (0450). This commenter noted that California's proposed regulations are following the same requirements as the CCHS program (0450). Other commenters recommended that instead of requiring STAA analyses at least every five years in conjunction with the a PHA revalidation, EPA should require the analysis only after accidents (0555, 0572).

Another commenter recommended modifying the wording in section 68.67(c)(8) to limit the provisions to new processes or major modifications to existing processes. The commenter also remarked that stationary sources' MOC programs should be updated to account for process changes and allow for reassessment of the IST analysis. The commenter concluded that this will ensure that existing IST components are not removed, replaced, or changed without revalidating the IST feasibility criteria (0443).

> **EPA Response:** EPA disagrees that the STAA requirement should be triggered only by a major process change. While the Agency acknowledges that a major process change could be an opportune time to evaluate safer technology alternatives, the Agency is concerned that requiring

STAA reviews only after major process changes could result in some processes rarely or never being evaluated for safer technology alternatives. This could occur if few or no major changes occurred during the life of the process. Also, limiting the STAA to only major process changes could create a disincentive to upgrading processes if facilities chose not to make improvements to avoid having to perform an STAA. EPA is also concerned that there is no common definition or understanding of the term "major process change" that could easily be applied to the wide range of processes affected by the STAA requirement. Therefore, while EPA agrees that integrating STAA reviews into a facility's MOC program (and other prevention programs) may often be beneficial, the Agency believes it is appropriate to incorporate the STAA provision into the PHA section of § 68.67, rather than the MOC section of § 68.75. Nevertheless, EPA encourages owners and operator to also consider safer technology alternatives whenever major process changes are planned.

EPA is revising the PHA requirements in § 68.67 to require that the PHA address findings from incident investigations as well as any other potential failure scenarios. Other potential failure scenarios may include those introduced from major process changes or new designs or those discovered as a result of an accident investigation. Thus, EPA believes that the PHA with its requirement to encompass IST review as part of the PHA process, would cover the same process changes whether they result from an incident investigation, MOC action or other process change.

Finally, EPA disagrees that the STAA requirement should be triggered only by accidental releases. Although the Agency agrees that accidental releases may indeed signal to the owner or operator that safer technology alternatives should be considered, the Agency prefers that owners and operators evaluate safer technologies before accidents occur, with the aim of ultimately preventing such accidents. Also, similar to the Agency's objection to requiring STAA reviews only after major process changes, requiring an STAA only after an accident would mean that many processes subject to this provision may never undergo an STAA.

2.3.1.8. Limit applicability of safer technology and alternatives analysis requirements to design stage of new processes or facilities

Comment: Several commenters, including industry trade associations, suggested that EPA should not require STAAs for existing facilities or processes (0337, 0551, 0570, 0435, 0476, 0512). Numerous commenters, including a few facilities, industry trade associations, local agencies, and a Federal agency, stated that a STAA is more appropriate during the design phase of a new process or facility, or during significant modifications (0579, 0550, 0495, 0586, 0495, 0559, 0435, 0492, 0536, 0551). A facility recommended modifying the wording in section 68.67(c)(8) from ". . . safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards" to " … safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards for new processes or major modifications to existing processes" (0560). A few industry trade associations remarked that it would not be feasible to apply STAA to existing processes because the processes are comprised of multiple integrated, dependent components (0517, 0570, 0337, 0551, 0581).

Some commenters, including a local agency, encouraged EPA to require STAAs to consider the highest level of hazard control (referring to the "hierarchy of controls") that is feasible during the design phase or whenever a facility makes a change (0453).

An industry trade association requested that EPA remove IST and design requirements from the rule entirely, or requested significant clarifications to applicability if removing the requirements is not possible (0462).

An industry trade association suggested that all Program 2 and Program 3 processes should be required to consider safer alternatives during the design and development phase (0537). In contrast, other commenters urged that safer technologies analyses are an ongoing need and should not be limited to new facilities (0552, 0443, 0510, 0450). A local agency suggested that STAA should be conducted whenever a facility is making a change (0450).

A state agency and an individual urged that IST should be performed for all new projects, processes, or stationary sources throughout various phases of a project's life cycle (0443, 0586). According to a commenter, performing a separate IST analysis for the entire existing process approximately every 5 years allows evaluators to see the big picture rather than just the minute details associated with a typical PHA process (0443).

If EPA applies the STAA requirement to existing processes, an industry trade association recommended the following:

- A STAA should only be conducted in situations where the PHA team recommends action be taken to address an identified risk. The commenter warned that applying STAA to PHA recommendations would make the cost estimates in the RIA less accurate.
- Remove the hierarchy of controls and allow a combination of risk management measures to achieve risk reduction (0594).

EPA Response: EPA disagrees that STAA analyses should only be required during the initial design phase of a facility. While the greatest potential opportunities for using IST occur early in process design and development, many IST options may still be practicable after the initial design phase. Furthermore, STAA involves more than just IST. Safer technology alternatives also include passive measures, active measures, and procedural measures, and these measures can be modified and improved after the initial design of a facility. EPA notes that many RMP-regulated facilities were originally constructed decades ago, yet major enhancements have been reported in some plants that have been operating for many years.[36] CCPS explains that inherently safer strategies can be evaluated throughout the lifecycle of a process, including operations, maintenance and modification, and EPA agrees with this approach.

EPA disagrees that it would not be feasible to apply STAA to existing processes because the processes are comprised of multiple integrated, dependent components. Sources involved in complex manufacturing operations have the greatest range of opportunities to identify and implement safer technology, particularly in the area of inherent safety, because these sources generally produce, transform, and consume large quantities of regulated substances under sometimes extreme process conditions and using a wide range of complex technologies. Therefore, such sources can often consider the full range of inherent safety options, including

[36] CCPS. 2009. Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd ed., American Institute of Chemical Engineers, CCPS New York, Wiley, p. 25.

minimization, substitution, moderation, and simplification, as well as passive, active, and procedural measures.

Lastly, EPA disagrees that the PHA is not an appropriate RMP element in which to integrate the STAA. EPA believes that safer technologies can and should be evaluated during the full life-cycle of a covered process, and that the PHA is the fundamental and recurring RMP element concerned with overall analysis and control of process hazards. By integrating the STAA with the PHA, every process subject to the provision will undergo an STAA, every five years. EPA believes that five-year revalidation will give the owner or operator the opportunity to identify new risk reduction strategies, as well as revisit strategies that were previously evaluated to determine whether they are now practicable.

Owners and operators of new construction facilities that will be subject to the RMP rule should consider performing the STAA portion of their initial PHA well enough in advance of facility construction so that the full range of inherently safer designs is considered, and include this evaluation in the initial PHA for the process.

2.3.2. Definitions

2.3.2.1. Feasible definition

Need for clarification or further specificity in definition of "feasible"

Comment: Commenters, including a facility, asked for clarification about the definition of "feasible" (0531, TRANS-15-5). Commenters also asked for clarification about the definition of "feasibility study" (0531).

Many commenters, including a facility and an environmental advocacy coalition of approximately 140 commenters, remarked that EPA did not sufficiently explain any of the five factors for facilities to consider in its definition of "feasible," and asserted that the examples provided by EPA are unhelpful for facilities and are vague (0492, 0575, 0550, 0579). The facility argued that the proposed rule does not provide sufficient guidance on the feasibility component of the STAA review (0492). According to the facility, even if the five measures are properly defined, they do not address the full range of issues in the operational life of a project rather than just the processing phase (0492, 0579). An environmental advocacy coalition of approximately 140 commenters warned that "accounting for" these factors could be used as an excuse to avoid necessary implementation measures (0575).

An industry trade association said that it does not want EPA to elaborate on the STAA requirement beyond what was written in the proposed rule (0517). Another industry trade association stated that it would be very subjective and difficult to prescribe in regulations what is "feasible" for a facility and that any "one-size fits all" approach to process safety would limit employers' ability to react to real facts on the ground. In regards to incorporating ISTs into safety programs, the commenter asserted that only facility operators know whether IST is appropriate given the complexities of their unique operating environments, and no one program will work for all facilities (0536).

EPA Response: EPA believes that the same tools and methods that facilities currently use for their PHA can be used to identify and measure hazards and risks of any safer alternative options.

Further explanation of the economic, environmental, legal, social and technological factors included in the practicability definition of this final rule can be found in NJDEP's Guidance for Toxic Catastrophe Prevention Act (TCPA)-Inherently Safer Technology Review, Attachment 1 Feasibility guidance.[37]

EPA did not define the various factors, such as "economic" or "social" used in the proposed definition of feasible or in the revised term "practicability." The examples in the proposed rule preamble are taken from the guidelines provided by CCPS, and are not exclusive of other situations. EPA believes that the definition of practicability in the final rule will provide sufficient flexibility for the owner or operator to determine whether an IST or ISD considered could be successfully accomplished. EPA does not believe that we should further define economic or social factors in the rule because further specificity of these terms would likely to be too prescriptive and would not encompass all the possible conditions and outcomes that might be encountered when determining the practicability of an IST or ISD considered in the STAA. EPA expects that facilities will use their expertise and discretion to consider the appropriate meaning of these factors so that any decisions regarding possible implementation of IST is not driven towards changes that would cause unintended adverse consequences.

Finally, EPA disagrees with commenters' assertion that accounting for the factors in the definition of practicability could be used as an excuse to avoid necessary implementation measures. EPA is not requiring IST or ISD implementation in the final rule and, therefore, further clarifying the practicability definition will not impact IST or ISD implementation.

Consistency of feasible definition with other programs

Comment: A commenter encouraged EPA to incorporate the definition of "feasibility" provided in the Contra Costa County Safety Program Guidance Document (0443). Another commenter said that the proposed definition of feasibility is consistent with California's proposed California Accidental Release Prevention Program (CalARP) regulations and the Contra Costa County and the City of Richmond's Industrial Safety Ordinances (ISOs) (0450). A state agency commented that there is an inconsistency with CalARP's definition of "feasible" in that the proposed EPA definition omits the terms "health" and "safety," and the commenter encouraged EPA to add these terms to the list of factors to consider in a determination of feasibility (0586).

EPA Response: EPA based the proposed feasible definition on the CCHS definition of "feasible"[38] but modified the definition to add language acknowledging that environmental factors include a consideration of the potential to transfer risks or introduce new risks to a process or source. The practicability definition in the final rule will maintain this language.

EPA disagrees with the suggestion to add the terms "health" and "safety" to the definition. The primary reason to consider ISTs in a STAA is to reduce risks to health and safety by mitigating

[37] http://www.nj.gov/dep/enforcement/tcpa/downloads/IST_guidance.pdf.
[38] Contra Costa County CA. 2014. Industrial Safety Ordinance Code, Title 4 – Health and Safety, Division 450 – Hazardous Materials and Wastes, Chapter 450-8 – Risk Management. Contra Costa County, Martinez, California. http://cchealth.org/hazmat/pdf/iso/Chapter-450-8-RISK-MANAGEMENT.pdfCCHS ISO 2014 Chapter-450-8-RISK-MANAGEMENT.pdf

the frequency and severity of accidental releases. EPA believes this is adequately addressed in the definition of IST and ISD in the final rule and including these factors in the definition of practicability would be redundant.

Suggested revisions to feasible definition

Comment: An environmental advocacy coalition of approximately 140 commenters argued that the term "within a reasonable time" could allow facilities to avoid implementation, and urged EPA to exclude a time-based factor from the final definition. The commenter also argued that EPA should not make any level of cost, no matter how minimal, an excuse to not implement any IST measures, but rather should recognize that IST measures should be implemented unless doing so would cause an extremely serious adverse economic effect, such as a facility shutdown (0575). A facility said that the proposed feasibility analysis does not allow sufficient time to complete the necessary work and recommended that the time frame be determined on a case by case basis (0531). A local agency commented that the feasibility of an IST must consider factors such as timeliness of implementation and costs. The commenter also expressed concern that the definition of "feasible" would allow for the implementation of IST options that may not be economically justifiable compared to other equally protective options (0530).

Many commenters, including a union and an environmental advocacy coalition of approximately 140 commenters, recommended deleting the second part of the definition of "feasibility": "Environmental factors would include consideration of potential transferred risks for new risk reduction measures." The commenters warned that this language is too specific in comparison with the general terms included in the previous paragraph (0519, 0575), and the union expressed concern that the language shows an industry bias (0519). The professional organization suggested using the following alternative version of the definition: "Feasible means capable of being successfully accomplished within a reasonable time, accounting for economic, environmental, legal, social, and technological factors weighed against the immediate and long-term benefits to safety and health. A claim of infeasibility shall not be based solely on evidence of reduced profits" (0519).

EPA Response: EPA disagrees with the commenters. Cost is a consideration when determining whether a risk management measure can be successfully accomplished and because EPA is not requiring implementation of any IST, we see no reason to exclude this factor from a practicability determination. EPA also disagrees with the suggestion to limit consideration of reduced profits when assessing a risk management measure because the Agency believes that economic factors, including cost and reduced profits, are a valid consideration for practicability. Identifying an amount of an allowable cost for an IST is not something that can be prescribed in the regulation because cost decisions are highly dependent on the economics involving a particular process, facility and industry.

EPA also disagrees that incorporating consideration of a reasonable timeframe will allow facilities to avoid implementation. EPA is not requiring IST implementation and we acknowledge that there may exist practical limits on whether some projects or process designs can be done to enhance safety. If a risk management measure cannot be accomplished within a reasonable time, then the facility should ensure that other safeguards are in place to prevent accidents instead of relying on the uncertainty of completing a long-term project that is dependent on future conditions such as process design or operating budgets.

Finally, as other commenters have noted, some ISTs involving chemical substitution or significant process redesign can result in new hazards or risks being introduced, and these should be considered when deciding the practicability of an IST. Thus, EPA is retaining the explanation of environmental factors in the practicability definition in this final rule.

Definition should be stronger than OSHA definition of feasible

Comment: An environmental advocacy coalition of approximately 140 commenters urged EPA to adopt a definition that is stronger than or at least as protective of health and safety as the OSHA definition of "feasible" to provide an appropriate minimum level of protection under Section 112(r) of the CAA, 42 USC § 7412(r)(7), that EPA should not go below. This commenter stated that under the OSHA standard, a protective measure is technologically feasible if, using existing technology or technology that is reasonably expected to be developed, a typical facility could achieve the standard in most operations most of the time. Additionally, the protective measure is economically feasible if its costs do not threaten the existence or competitive structure of an industry. The commenter contend that OSHA's definition has been interpreted by courts to mean that the mere expense of a measure, alone, cannot trump the implementation of safety measures that are "capable of being done." The commenter believes that EPA should not set a weaker definition that would make it less likely that IST or other prevention measures would be implemented under § 7412(r) than under OSHA's definition. Doing so would be both inconsistent with the objectives of § 7412(r) to protect the public and with the existing framework facilities follow under OSHA requirements, could lead to confusion for facilities and in the courts, and result in an overall reduction in safety measures (0575).

EPA Response: EPA disagrees with the commenter and believes the approach in the final rule to consider the practicability of IST or ISD considered is consistent with the intent of CAA and will not lead to an overall reduction in safety measures. The current rule already requires the PHA to consider active, passive and procedural risk management measures in § 68.67; however, the requirements do not prescribe exactly which type or exactly what engineering and administrative controls must be implemented. The regulations allow facilities to use their specific knowledge and expertise of the process to meet the PHA to "identify, evaluate and control the hazard" (emphasis added). EPA is finalizing a requirement for certain sectors to conduct a STAA that also considers IST in the hierarchy of controls. However, requiring facilities to implement IST instead of using passive, active or procedural safeguards can involve extensive and very expensive changes to a facility's process, depending on the IST, especially if it involves substitution of alternative chemicals and/or major process redesign. EPA believes that a practicability consideration should address whether an IST or ISD can be accomplished technologically, is economically possible, does not result in an increase in hazards or other risks that cannot be controlled, or cannot be successfully accomplished because of other considerations.

Harmonize feasible definition with OSHA

Comment: A facility noted that the proposed definition of "feasible" in § 68.3 could cause confusion because the proposed rule preamble states that OSHA has indicated that it would be unable to adopt the term feasible, as defined in this notice, under its PSM standard if OSHA considers similar revisions involving IST. This is an illustration of the need to harmonize the requirements of EPA RMP

requirements with that of OSHA PSM standard (0461). A few commenters, including facilities and industry associations, urged harmonization with OSHA's definition of "feasibility" and requirements (0461, 0462, 0492, 0579). A facility and an industry trade association warned of the confusion that could ensue if "feasibility" is defined inconsistently between EPA and OSHA, and encouraged EPA to use the term "practicability" instead (0492, 0579). Similarly, an industry trade association urged EPA to use the term "practical" in place of "feasible" (0495). The industry trade association argued that what is deemed feasible is often not practical for a number of reasons, and asserted that any decision to alter a technology involves a complex variety of factors such as operating costs, associated risk, energy consumption and greenhouse gas emissions (0495). The commenter concluded that only facility owners should ultimately be able to define what is feasible or practical for their facility (0495). In contrast, a state agency encouraged use of the term "feasible" rather than "practical" (0586). An industry trade association asserted that neither term should be the basis for the analysis (0536).

According to an environmental advocacy coalition of approximately 140 commenters, the definition of "feasible" is open to exploitation by facilities whether EPA chooses to use "practicable" or "feasible." The commenter warned that facilities could use any cost as a justification for not implementing safer measures (0575).

> **EPA Response:** EPA agrees with commenters who support having consistency with OSHA's use of the term and is revising the rule to replace the term "feasible" with "practicability." EPA proposed to use the term ''feasibility'' as part of the STAA analysis as it is already widely used in the technical literature discussing IST. However, because OSHA is considering similar revisions to its PSM standard involving IST and in order to eliminate the potential for confusion of different meanings of the term "feasible,"[39] EPA has decided to use the term "practicability" while retaining the same definition and meaning used for "feasible" in the proposed rule. EPA disagrees with commenters who believe that facilities should not use cost as a justification for not implementing safer measures. EPA is not requiring the implementation of IST and costs may be a consideration for the practicability of any IST for businesses.

2.3.2.2. Hierarchy of controls

Comment: A local agency noted that California's proposed regulations for refineries and EPA's proposed regulations would require that the facility look for inherently safer means to reduce the hazards, but if there is not a means to reduce the hazard, the facility would go through a hierarchy of prevention methods and select the highest level of prevention (0450). A few local agencies recommended using the term "hierarchy of control" instead of adding a new term (0450, 0453).

> **EPA Response:** EPA does not use the term hierarchy of control (nor substitutes a new term for it) but instead explicitly explains the concept in the regulation by stating that the owner or operator shall consider risk management measures in the following order of preference:
>
> - Inherently safer technology or design;
> - Passive measures;
> - Active measures; and

[39] 81 FR 13667, March 14, 2016

- Procedural measures.

EPA believes this is consistent with proposed CalARP regulations for Hierarchy for Hazard Control Analysis, which requires refineries to eliminate hazards using first order inherent safety measures, to reduce any remaining hazards using second order inherent safety measures, and to address any remaining risks in the following sequence and priority by using passive safeguards, active safeguards, and procedural safeguards.[40]

2.3.2.3. Passive measures

Comment: A commenter recommended revising the definition of "passive measures" to "mean risk reduction measures designed to reduce the probability or the consequences of an accidental regulated chemical release without human intervention."

According to the commenter, the proposed definition of "passive measures" is unclear and suggests that EPA considers "reducing the hazard" an aspect of risk management. The commenter warned that "hazard" does not consider exposure in the way that "risk" does, and suggested using the term "risk reduction" in place of "hazard reduction" to address this discrepancy and to ensure consistency with the RMP title.

The commenter requested clarification as to whether the definition intends to "reduce the hazard" or "reduce risks of a release," and asked what is meant by "hazard." The commenter urged EPA to reconsider the examples it cites in the context of "reducing the hazard," and suggested including a representative range of options. The commenter suggested that passive "design features" could include mechanical or energy intervention measures.

In addition, the commenter stated that the definition of "other energy inputs" needs revision, and suggested replacing the phrase "energy inputs" with "human intervention" to meet the intent of the definition. The commenter expressed concern that the word "other" in the phrase "other energy input" mischaracterizes pressure vessel designs, dikes, etc. as energy inputs (0459).

A State agency commented that under the NJDEP IST regulations "passive protection" means "minimizing the hazard by process and equipment design features that reduce the frequency or consequence of the hazard without the active functioning of any device" (0406).

EPA Response: EPA disagrees with the commenter that suggested revising the definition of passive measures to focus solely on risk reduction measures. EPA based the proposed definition of passive measures on the definition used by CCPS, who defined passive as

[40] CalARP Proposed Regulations, 2016. California Governor's Office of Emergency Services, California Code of Regulations, Title 19, Division 2, Chapter 4.5 CalARP. http://www.caloes.ca.gov/FireRescueSite/Documents/CalARP%20Proposed%20Regs%202016.pdf

"minimizing the hazard through process and equipment design features that reduce either the frequency or consequence of the hazard without the active functioning of any device, i.e., providing a dike wall around a storage tank of flammable liquids."[41]

Thus the intent of the CCPS definition appears to be on aspects of both hazard and risk reduction. EPA is modifying the passive measures definition in the final rule to clarify that passive measures reduce the frequency or consequence of the hazard.

EPA disagrees that the word "other" in "other energy inputs" characterizes pressure vessel designs and dikes as energy inputs and also disagrees that passive design features would include automatic fire suppression systems or automatic vapor ignition (in which a flare is ignited). These types of measures would most likely be considered to be active measures. CCPS, in their Guidelines for Hazard Evaluation Procedures,[42] cites a fire protection system as an active safeguard because a fusible link or other engineered device must function to successfully trip the system.

2.3.2.4. Inherently safer technology/inherently safer design

Comment: A number of commenters, including an advocacy group, requested clarification about the definition of IST (0470, 0532). An industry trade association requested clarification about the definition of IST and what would qualify as "safer" in this context (0537, 0476).

Other commenters, including an advocacy group and a facility, asked for clarification about the definition of ISD (0470, 0598, 0531). A facility also said that clarification is needed about the definition of Inherently Safer Measures (0531).

An advocacy group asked EPA to ensure that there is a distinction between IST and less effective controls and management methods. The commenter cited lesser effective controls from the NJDEP IST compliance, such as safer extremely hazardous substance risk location, protection of storage vessels from weather conditions, changes in truck traffic patterns, addition of EHS leak detectors, use of closed circuit television systems, labeling of valves and equipment, revising procedures, installing a simulation training station, and adding light towers for EHS leak alarms. The commenter requested that EPA develop a precise definition for IST and ISD (0470).

A State agency commented that under the NJDEP IST regulations, a broad definition of IST was used that would apply the IST concept to passive, active and procedural controls as well as to the fundamentals of the process (0406).

A union expressed general support for the proposed definition of IST (0519).

EPA Response: EPA disagrees with the commenters' suggestions to provide a distinction between IST and other controls and management methods. EPA believes that determining

[41] CCPS. 2009, Inherently Safer Chemical Processes: A Life Cycle Approach. 2nd ed., p. 10. https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0253.
[42] CCPS. 2008, Guidelines for Hazard Evaluation Procedures. 3nd ed., p. 234. http://www.aiche.org/ccps/publications/books/guidelines-hazard-evaluation-procedures-3rd-edition.

effective risk management strategies for a facility is a site-specific determination and EPA encourages any improvement that will could lead to inherently safer conditions. Therefore, EPA is finalizing the definition of IST/ISD as proposed.

EPA based its definition of IST or ISD on the four inherently safer strategies as explained in the Inherently Safer Chemical Processes: A Life Cycle Approach by CCPS.[43] These four types of strategies have been widely recognized by the industry and best encompass the concepts and principles of applying inherent safety, which focuses on eliminating or reducing the hazards associated with a set of conditions.

As the 2010 CCPS Final Report: Definition for Inherently Safer Technology (IST) in Production, Transportation, Storage and Use[44] states:

> "IST (Inherently Safer Technology), also known as Inherently Safer Design (ISD), permanently eliminates or reduces hazards to avoid or reduce the consequences of incidents. IST is a philosophy, applied to the design and operation life cycle, including manufacture, transport, storage, use, and disposal. IST is an iterative process that considers such options, including eliminating a hazard, reducing a hazard, substituting a less hazardous material, using less hazardous process conditions, and designing a process to reduce the potential for, or consequences of, human error, equipment failure, or intentional harm." (emphasis added)

The CCPS guidance is organized by these four strategies and provides many examples of each type of strategy. NJDEP also uses descriptions of the four strategies to identify available IST alternatives in their IST review requirements.[45] Although some NJ facilities may have reported some controls that others might not strictly view as IST, EPA does not believe that IST should be limited only to chemical substitution and process changes. Some changes such as better labeling of equipment are cited as examples of process simplification in CCPS' IST Checklist. Changes involving transportation of chemicals and storage location are also cited in the checklist because inherent safety can involve reduction of hazard, and does not require complete elimination of a hazard.

2.3.2.5. Other comments on definitions associated with safer technology and alternatives analysis requirements

Comment: A facility warned that the definition of what qualifies as STAA lacks clarity (0531).

EPA Response: Although the term "STAA" is not included as a separate definition in § 68.3 regulatory text, it is explained in the proposed rule preamble and refers to the analysis of the safer technology and alternative risk management measures noted in § 68.67(8), specifically which are

[43] CCPS. 2009, Inherently Safer Chemical Processes: A Life Cycle Approach. 2nd ed., https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0253.
[44] CCPS. July 2010. Final Report: Definition for Inherently Safer Technology in Production, Transportation, Storage, and Use, https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0274.
[45] NJDEP TCPA. March 29, 2012. NJ Title 7, Chapter 31 TCPA Program Consolidated Rule Document http://www.nj.gov/dep/rules/rules/njac7_31.pdf.

the following measures listed in § 68.67(8)(i): IST or design, passive measures, active measures, and procedural measures. Each of these four risk management measures is defined in § 68.3.

Comment: An industry trade association referenced the two CSB reports on pipe failures in the refining sector (cited in the preamble of the proposed rule) where CSB claimed that accidents might have been avoided had a safer technology had been employed (0536).[46] The commenter argues that use of an alternative material of construction may have delayed the material's failure but that it would be inaccurate to claim that the accident could have been prevented by alternative material because no material is resistant to all forms of degradation for an infinite period.

EPA Response: In the two CSB reports referenced by the commenter, the CSB claims that accelerated corrosion and failure of carbon steel used could have been avoided by the use or more corrosion resistance high-chromium steel. EPA agrees that no material is resistant to all forms of degradation for an infinite period but choosing a more corrosion resistant material would make the material last longer, and could be viewed as a safer technology because the added corrosion resistance could reduce the likelihood of an incident over time. While the CCPS IST checklist[47] cites "use of corrosion resistant materials for process equipment, piping and components" as an example of the Simplification type of IST, EPA and CCPS recognize that no technology or design is absolutely safe and other risk reduction measures, such as inspection and maintenance procedures may still be necessary to control hazards and risks.

2.3.3. General comments on safer technology and alternatives analysis requirements

2.3.3.1. Suggestions for minimal elements for safer technology and alternatives analysis methodology

Comment: A facility expressed concern that the lack of consensus on definitions for STAA requirements would create burden for regulated entities (0526). Another facility warned that the definition of what qualifies as STAA lacks clarity (0531). An environmental advocacy coalition of approximately 140 commenters requested that EPA specify minimum STAA elements and include these elements in any STAA guidance. The coalition commented that the STAA should include an analysis of the technical, economic, legal/regulatory, social, and hazards implications of each major technology option, and noted that the sample methodologies and guidance listed in the proposed rule may not include all of these elements. The commenter urged EPA to require the economic analysis to include potential liabilities, costs, avoided costs, and savings associated with each major STAA option evaluated (0575).

[46] CSB. May 2014. Investigation Report: Catastrophic Rupture of Heat Exchanger, Tesoro Anacortes Refinery, Anacortes, Washington, April 2, 2010. Report 2010-08-I-WA. http://www.csb.gov/assets/1/7/Tesoro_Anacortes_2014-May-01.pdf.

[46] CSB. January 2014. Regulatory Report: Chevron Richmond Refinery Pipe Rupture and Fire, Chevron Richmond Refinery #4 Crude Unit, Richmond, California, August 6, 2012. Report No. 2012-03-I-CA. http://www.csb.gov/assets/1/19/CSB_Chevron_Richmond_Refinery_Regulatory_Report.pdf.

[47] CCPS. 2009. Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd ed., American Institute of Chemical Engineers, CCPS New York, Wiley. P. 314.

A local agency requested that the IST decision process and the evaluation of feasibility should consider the entire life cycle or risks, including hazards, conditions of use, and the likelihood of an event, as well as implementation timelines and costs (0530).

> **EPA Response:** EPA does not believe it should specify factors other than those already present in the PHA and STAA requirements, including the definition of practicability. EPA believes that various resources and guidance exist (as well as existing PHA methodologies such as HAZOP, What-If? Method, or checklists or a combination of these as discussed in Chapter 8 of CCPS' book, *Inherently Safer Chemical Processes-A Life Cycle Approach*[48]) that can assist facilities in understanding how IST can reduce hazards and risk and in determining practicability of IST or ISD considered in the STAA. Facilities can follow, for example, guidance for IS Review Documentation found in CCPS's Inherently Safer Chemical Processes, which suggests documenting the summary of the approach used for the IS review (i.e. methodology, checklist, etc.), names and qualifications of the review team, IS alternatives considered, as well as those already implemented or included in the design, results of each consideration including those not considered and why, documentation of feasibility, and rationale for rejection of IS opportunities.
>
> While some facilities may choose to conduct an economic analysis of potential liabilities, costs, avoided costs, and savings associated with each major STAA option evaluated, EPA is only requiring facilities to determine whether IST is practicable and document this determination. It may not always be possible to estimate avoided costs and savings for a particular IST.

2.3.3.2. Safer technology and alternative analysis is not a suitable replacement for other prevention program measures

Comment: An association of governments expressed concern that analyses will not prevent accidents because human factors such as operational bias towards production rather than safety, failures to manage changes, failures to provide adequate training for employees, and failure to follow standards cannot be eliminated by a safer technology analysis. The association warned that the analysis could be used as a substitute for appropriate emergency preparedness and accident prevention programs. The commenter also believed that adoption of safer technology without a holistic review of risk transfers might be dangerous (0510).

According to a facility, STAA should be evaluated but should not be the only standard or practice used as part of a broader safety management analysis. The facility remarked that the regulated entity should be able to evaluate the root cause of an accident using the best information available whether or not STAA is involved (0531).

> **EPA Response:** EPA does not believe or intend that a safer technology analysis as part of the exiting PHA would negate the need or requirements for facilities to follow other RMP rule provisions, such as training, managing change, and following RAGAGEP. Rather, this analysis is designed to supplement or enhance the ways that hazards or risks of an accidental release can be eliminated or reduced by possibly more rigorous risk reduction measures. Facilities can evaluate

[48] CCPS. 2009. Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd ed., American Institute of Chemical Engineers, CCPS New York, Wiley.

the feasibility of potential safer technologies and this evaluation can and should take into account any known transfers of risk, as well as other considerations. For this reason, EPA is not prescribing that facilities adopt any particular safer alternative and is allowing any decision on implementation of IST to be made based upon a facility's judgement using accepted hazard analysis and their knowledge of their processes, hazards, risks and methods to control hazards. EPA does not believe the analysis could be used as a substitute for appropriate emergency preparedness and accident prevention programs - existing requirements in these areas are still in place and this final rule also provides more emphasis on emergency coordination and response.

2.3.3.3. Safer technology and alternatives analysis guidance, regulatory incentives and voluntary partnership programs

Comment: An industry trade association suggested the establishment of a working group to develop decision framework and guidance materials for STAAs. The commenter remarked that creation of a working group would be more effective than mandating RMP facilities to conduct STAAs with insufficient guidance. The commenter recommended that the working group should consider existing voluntary programs that include a safer alternatives assessment, and should consider the possibility of establishing a public-private partnership. The commenter further explained that the working group should explore how EPA could leverage these programs by providing regulatory incentives to those who participate in and fulfill the requirements of the voluntary programs. The commenter also suggested that a partnership could be created based on the core principles adopted by industry (i.e., stewardship) programs and the lessons learned from existing and past voluntary partnership programs. The commenter stated that such a program could provide technical assistance and tools to help create awareness and instill a quality culture of safety and security. The commenter provided a white paper with more detailed discussion on the potential purposes, components, incentives and requirements for a voluntary partnership program to improve chemical safety and security (0537).

EPA Response: EPA appreciates the commenters' suggestions for developing guidance, regulatory incentives and partnership programs for STAAs. EPA is finalizing a regulatory provision requiring Program 3 industry sectors in NAICS codes 322, 324, and 325 to conduct an STAA as part of the PHA and determine the practicability of IST or ISD considered. EPA disagrees that STAA should be limited to a voluntary partnership program. However, we encourage RMP-regulated facilities that will not be subject to the STAA requirements in the final rule to consider existing voluntary programs to assess safer alternatives. EPA will further consider the merits of a potential voluntary partnership program with industry to engage in improved process safety practices.

EPA believes the STAA requirements are flexible and allow the use of industry expertise to best decide which safer technologies and alternatives to consider, and to determine the practicability of IST or ISD considered in the STAA. EPA is willing to develop and/or improve guidance for complying with RMP PHA and STAA requirements.

2.3.3.4. Making safer technology and alternatives analysis information available to local emergency planning committees

Comment: A facility stated concern that the proposed requirement to share information pertaining to IST ISD with the local LEPC would require specific detailed information that the LEPC may not consider

relevant (0725). While the facility expressed willingness to share appropriate information with the LEPC, the facility does not believe the LEPC would be interested in the minute details of the changes in process units (0725). An industry trade association stated that not requiring implementation while requiring facilities to provide LEPCs the date of implementation or planned implementation results in confusion (0536).

> **EPA Response:** EPA agrees that providing LEPCs with detailed information regarding process changes involving IST or ISD may not always be relevant or necessary to community emergency preparedness or can be confusing. The final rule eliminates the proposed requirements under § 68.205 to provide information to the LEPC, upon request (including IST information).

2.3.4. Including safer technology and alternatives analysis as a process hazard analysis requirement

2.3.4.1. Appropriateness of process hazard analysis techniques or process for safer technology and alternatives analysis

Comment: A few local agencies expressed support for STAA measures being used as a method of addressing PHA recommendations (0450, 0453). Commenters, including a local agency, encouraged the review of the STAA at least every 5 years (0450, 0453, 0408).

However, several commenters opposed including STAA in the PHA. Two trade associations commented that requiring PHA teams to evaluate the feasibility of IST has the potential to undermine the effectiveness of the PHA process (0550).[49] The commenters argued that regulating IST is infeasible because there is no simple answer when it comes to managing risk. The same two trade associations (0550) and one facility (0560) asserted that a PHA review of an existing process considers the adequacy of the existing controls for that process while an IST review is entirely different. The commenters believe an IST review involves a comparison to a different technology and an operation-and site-specific evaluation based on engineering judgment, in which many variables are considered that include hazards, the location of the facility, surrounding populations, exposures, technical feasibility, and economic feasibility. A state agency and an industry trade association warned that requiring STAA during the PHA would be inappropriate because the structure of a PHA does not facilitate such an analysis (0530, 0528).

A facility expressed concern that none of the PHA methodologies described in the NPRM require this type of comparison, arguing that IST/ISD methodologies are similar, but not identical, to PHA analysis techniques. The facility stated that it would be wrong to assume that STAA can be directly incorporated into existing PHA methodologies (0560). A trade association commented that in order to have PHA team members perform a comparative analysis on alternatives, the PHA team would be required to compile relevant process safety information for the alternatives in order to perform the IST analysis (0536).

One commenter believes that IST needs to be evaluated outside of the PHA process because the node-to-node hazard and operability study approach is minutely focused, does not look at the bigger picture, and reduces the impact of IST to localized risk reduction measures rather than making the whole process inherently safer. The commenter stated that a separate IST analysis for the entire existing process is

[49] Comment No. 0550 is from two trade associations, National Oilseed Processors Association (NOPA) and Corn Refiners Association (CRA).

needed and could be performed every five years but separately from the PHA since different team participants (such as technical experts) are usually needed (0443).

One trade association and a facility believed that IST analyses are not practical to conduct as part of a PHA for a defined process with defined chemicals (0527, 0595). The commenters claimed that to consider a substitute, a facility operator would need to design the new process before being able to conduct the analysis. According to some facilities, design and hazard reviews for new facilities can take place years before any PHA (0560, 0570, 0573). An industry trade agency suggested that EPA should include appropriate lead-time and grandfathering provisions so as not to disrupt projects already in the design or construction phase (0594). Asserting that IST decisions are very complex and should not be determined by any government agency, an industry trade association recommended that EPA delete proposed §§ 68.67(c) (8) and 68.175(e) (1, 2) (0536).

> **EPA Response:** EPA believes that IST analysis can be incorporated in the existing RMP PHAs by using PHA techniques such as HAZOP, What-If? Method, or checklists or a combination of these as discussed in Chapter 8 of CCPS' book, *Inherently Safer Chemical Processes-A Life Cycle Approach.*[50] These techniques themselves are not requirements, but tools available to help the facility owner or operator to identify, evaluate, and control the hazards involved in the process. We also note that, when EPA previously considered an IST requirement, commenters noted that "PHA teams regularly suggest viable, effective (and inherently safer) alternatives for risk reduction" and EPA observed that "good PHA techniques often reveal opportunities for continuous improvement of existing processes and operations." 61 Fed. Reg. at 31699 & 31700.
>
> Therefore, EPA disagrees with commenters that argue it is not appropriate to include an STAA in the PHA. In fact, the RMP PHA requirements include other aspects of an analysis that is typically associated with process design. For example, the PHA must also address stationary source siting issues which involve the location and proximity of the source to local population and their numbers.
>
> Nevertheless, EPA agrees that for situations where an IST would involve a new process that is entirely different from the current process, the process design would have to exist or be developed, and process safety information be compiled, to conduct a PHA for this new process. EPA does not expect facility owners or operators to research and create new processes or conduct research into all possibilities for the use of new chemicals. Instead, the STAA should focus on the known and existing substitute processes and chemicals that have been demonstrated to be in use commercially.
>
> If a facility is considering a chemical substitution or process change that involves a significant redesign of their process, such efforts involved with redesign and its evaluation may need to be undertaken as part of a practicability study.[51] The definition of practicability allows for

[50] CCPS. 2009. Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd ed., American Institute of Chemical Engineers, CCPS New York, Wiley.

[51] EPA modified the final rule to replace the term 'feasible" defined in § 68.3 with "practicability." When evaluating the practicability of an IST, the facility owner or operator would determine whether the IST is capable of being successfully accomplished within a reasonable time, accounting for economic, environmental (including consideration of potential transferred risks for new risk reduction measures), legal, social, and technological factors.

consideration of technological factors, which could include whether the potential safer alternative can be designed and operated to meet the process functions needed. However, not all IST involves substituting a chemical or an entirely new process and there are other types of other IST measures (minimization, moderation or simplification) that can be considered to address various points within the current process where hazards and risks exist. Furthermore, the final rule will not require the facility to implement IST measures.

Facilities may, if desired, conduct a separate IST analysis of each entire process, outside of the PHA process, as long as it is done in same timeframe as the PHA and the results are documented. If a facility does not have staff capable to identify and evaluate alternatives, the facility owner or operator may require outside assistance from engineering firms or consultants.

The RMP PHA requirements require the facility owner or operator to identify risk management measures that eliminate or reduce the risks from the process hazards. If the facility has already performed such IST analysis in the past, then the owner or operator should consider these analyses when updating or revalidating their PHAs and determine whether there is new information that should be considered as part of conducting the current STAA.

2.3.4.2. Involvement and training of employees and team members

Comment: An industry trade association expressed concern about the potential experience limitations of the PHA team. The commenter stated that team members may lack the expertise required to assess all alternative technologies, and said that in the case of inadequate experience, the STAA should be considered within the MOC element of the RMP and the facility's' ongoing risk assessment analysis (0536). Two trade associations commented that a PHA and an IST analysis serve two entirely different engineering functions and the teams that conduct these reviews are staffed differently (0550).[52] The two associations further commented that small facilities do not have staff design engineers to conduct an IST review, which means the facility would be required to absorb the cost of retaining them even though there is no requirement that their findings be implemented.

Another commenter stated that conducting a full IST/ISD review based on yet-unproven technologies typically is an extremely complex endeavor (particularly for chemical production process), and would require very different PHA teams that could adequately assess IST/ISD (*e.g.*, to adequately study how the hypothetical use of new IST/ISD might create additional, unanticipated hazards throughout a process) (0598).

Commenters, including a mass mail campaign joined by approximately 13,700 commenters, recommended engaging workers in the alternatives and feasibility assessment process and making sure they have the ability to report anonymously and hold whistleblower authority (0488, 0471). A commenter suggested that the PHA/hazard review team should be properly educated in inherent safety analysis (0532). A union encouraged the participation of workers in the STAA process, but urged that these employees must have proper training and education to participate (0519).

[52] Comment No.0550 represent two trade associations, National Oilseed Processors Association (NOPA) and Corn Refiners Association (CRA).

An advocacy group urged EPA to explicitly state that union representatives and workers can participate fully in the STAA (0470).

> **EPA Response:** EPA believes that limiting the applicability of the STAA requirement to only those facilities in Program 3 in the petroleum and coal products manufacturing (NAICS code 324), chemical manufacturing (NAICS code 325) and paper manufacturing (NAICS codes 322) minimizes the burden of the requirement for many small businesses. Of those 1557 Program 3 facilities that are subject to the STAA requirements, approximately 40% of them are owned by small entities, however, about 86% of these small entity-owned facilities have more than 20 full-time equivalent employees.[53] We note that these sectors have active industry associations and are generally familiar with outreach program from regulators and professional associations. Guidance from EPA and professional groups like CCPS should help small facilities.
>
> EPA agrees that team members conducting an STAA should be properly trained and knowledgeable on how to conduct the analysis. The facility owner or operator is responsible for ensuring that facility personnel have the proper training to conduct STAAs or hire consultants with the appropriate qualifications. EPA expects that some facilities in NAICS codes 322, 324, and 325 will have staff qualified to conduct the analysis. If the facility owner or operator determines that two different teams should conduct the PHA and STAA, then they may choose to conduct a separate STAA of each entire process, outside of the PHA as long as it is done in same timeframe as the PHA and the results are documented. Other resources, such as industry trade associations, as well as EPA and professional guidance, should be of assistance to owners and operators in complying with the requirements.
>
> As discussed in the RIA, the technical practicability assessment considers the extent of process redesign, its engineering implications, and possible costs. EPA estimates that most facilities except the large facilities in NAICS codes 322, 324, and 325 will seek help from consultants (i.e., engineering firms) to conduct STAA and determine the practicability of IST/ISD considered. However, EPA does not expect facilities to spend resources evaluating hypothetical untested alternatives that they believe are not proven within their industry.
>
> Finally, the final rule will provide facility owners or operators the flexibility to use facility personnel with expertise and experience with facility processes and their industry to conduct STAAs and determine the practicability of IST/ISD considered. However, EPA does not believe the RMP rule is the appropriate mechanism to address worker rights or whistleblower protections.

2.3.4.3. Overlap or conflict with process hazard analysis

Comment: A few industry trade associations and a facility expressed concern that an IST analysis would detract from the goal and focus of the PHA process to identify opportunities for continuous improvement of operations (0495, 0598, 0569, 0536, TRANS-08**).** For example, one commenter was concerned that in an effort to ensure compliance with new safer alternative technology analysis regulations, PHA teams may be distracted from identifying and addressing the hazards of existing processes by spending too much time assessing potential alternative technologies with which they have no experience (TRANS-08).

[53] Regulatory Impact Analysis, Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7), using data from Exhibit 7-3 and 7-5.

Two commenters elaborated, stating that requiring IST or ISD "consideration" based on a laundry-list of "factors" would substantially increase the already extensive time that is required to complete a PHA, and favor subjective reviews over objective reviews of actual safety problems and the most direct and timely techniques required to resolve them (0598, 0569).

> **EPA Response:** EPA disagrees with the commenters. The RMP PHA requirements are not only to identify hazards but also to incorporate measures to reduce or mitigate those hazards. Under § 68.67(a), the rule requires the owner or operator to identify, evaluate, and control the hazards involved in the process. Several commenters acknowledged that some companies already evaluate "safer alternatives" during their PHAs when it is efficient to consider fundamental process changes. EPA disagrees that consideration of additional inherently safer measures necessarily precludes addressing hazards and applying other risk reduction measures in the hierarchy of controls. If facility owners or operators are concerned that an IST assessment could preclude other aspects of the PHA, they may choose to conduct the STAA separately from the PHA, as long as it is performed on the same timeframe and documented.

Comment: An industry trade association said that many of the activities being reported as IST in NJDEP's IST Implementation Summary, were activities that already occur as a matter of course in most facilities. The commenter warned that mandating an STAA may incentivize facilities to delay consideration of alternatives until the next scheduled PHA (0536 API).

> **EPA Response:** EPA does not believe that an incentive or advantage would exist for a facility to delay making changes to hazard or risk reduction measures until the next scheduled PHA. The STAA requirements do not limit the facility to evaluating and making changes only during the 5-year PHA revalidation. The facility should reflect and document any new risk reduction measures that were implemented since the last PHA in the next scheduled PHA and also report on them in the next required RMP.

2.3.4.4. Inherently safer technology already incorporated as part of process hazard analysis or otherwise considered

Comment: An industry trade association remarked that STAA requirements are already a component of the PHA and concluded that costs of the new requirement would be redundant, but that these costs are incommensurate with the much lower risks faced by facilities in their industry (0496). One trade association disagrees with requiring STAA as part of the PHA because currently approved PHA methodologies already provide for successful risk mitigation (reducing risks to personnel and the environment to 'acceptable' levels), including the consideration of inherently safer design technologies by the PHA team where appropriate (0495). A commenter noted that some companies already evaluate "safer alternatives" during their PHAs when it is efficient to consider fundamental process changes (0449). However, they consider available, proven technologies, not "potentially" safer technology that may be noted in literature, but not yet in use anywhere within their industry (0449). Another industry trade association remarked on the importance of process safety information for alternatives and its availability to the PHA team (0536). A process safety organization commented that they believe the existing provisions to conduct a PHA automatically includes the team to consider safer alternatives as appropriate and applicable (0532). Citing NJDEP's IST Implementation Summary, an industry trade association said that activities considered ISF were already being adopted without the regulation, and warned that

mandating STAAs may incentivize facilities to delay consideration of alternatives until the next round of analysis (0536).

A facility and multiple industry trade associations remarked that other programs such as the Department of Homeland Security's CFATS already provide incentives for facilities to promote safe practices and implement safer alternatives (0339, TRANS-13, 0559, 0497) or include a process for sources to evaluate and adopt alternative technologies and designs that are safer and more secure (0559). A group of commenters urged EPA to avoid burdensome requirements that overlap with the CFATS program at additional cost without added benefit (0559).[54] An industry trade association noted that CFATS allows facilities to move to a lower risk tier or out of the program if risk profiles are reduced and vulnerabilities are minimized, resulting in roughly 3,000 facilities that have changed processes or inventories in ways that have enabled them to be excluded from the program (TRANS-13, 0339).[55] This commenter notes that DHS's risk performance-based approach does not mandate solutions, recognizes the unique situation of each facility, and embraces a public-private sector effort for implementation of safer measures (TRANS-13, 0339). The commenter further indicated that mandating the adoption of government-selected ISTs would be unduly burdensome, particularly for smaller chemical facilities, and could hinder their overall efforts at improving security (0339, TRANS-13).

> **EPA Response:** While EPA recognizes that some facilities may already consider ISTs as part of a PHA, whether as part of a voluntary program or through other incentives, EPA believes that all facilities in NAICS 322, 324, and 325 industry sectors should consider IST to ensure that they are considering all the options to operate their facility safer. EPA expects that these regulatory requirements will raise industry awareness of IST possibilities and could reduce risk. EPA is not mandating implementation or adoption of any particular IST and will rely on facility expertise to reduce the hazard and mitigate risk without causing undesirable consequences such as reducing product quality or transferring risk to some other point in the supply chain.
>
> Furthermore, EPA disagrees with commenters that asserted that the STAA requirements will overlap with other regulatory requirements and result in an increased burden with no corresponding benefit. In its 2007 Interim Rule for CFATS,[56] DHS stated that Section 550 of the Homeland Security Appropriations Act of 2007 prohibited the Department from disapproving a site security plan "based on the presence or absence of a particular security measure," including ISTs. DHS noted that, even so, covered chemical facilities are certainly free to consider IST options, and their use may reduce risk and regulatory burdens. Therefore, because DHS does not require IST, EPA does not believe there is an "overlap" in requirements. Furthermore, DHS requirements address site security measures, and not measures designed to reduce accidental releases.

2.3.4.5. Potential for risk tradeoff or risk transfer

Comment: Some commenters, including an association of government agencies and an industry trade association, encouraged a holistic review of IST to avoid or minimize risk transfers (0492, TRANS-21,

[54] 0559 comments are from several trade associations: AFPA, AISI, ILTA, NAM and USCC.
[55] TRANS-13 and 0339 are from same organization, US Chamber of Commerce (USCC).
[56] See 72 FR 17718, April 9, 2007, https://www.gpo.gov/fdsys/pkg/FR-2007-04-09/pdf/E7-6363.pdf.

0559, 0594, 0536, 0510, 0530). A few commenters stated that, for example, a facility adopting a safer technology may increase transportation requirements of hazardous materials and increase risks of incidents outside of the facility, including necessitating more exotic emergency response equipment or preparation (0510, 0527). One commenter noted that minimization frequently involves the decrease of on-site storage and could result in the potential for additional shutdowns and startups due to insufficient raw materials. The same commenter further indicated that substitution of a purportedly safer alternative may introduce environmental or safety risks that are not realized until much later (0536).

In contrast, an advocacy group urged EPA to consider that the commenters citing risk transfer are often industry funded and, in the opinion of the commenter, overlook risk transfer that is caused by actions of the facilities themselves (TRANS-12). A process safety organization stated that EPA should not require an STAA as part of a new prevention program, as part of the existing PHA/hazard review, or as a requirement under CAA section 112(r) because the definition of inherently safer alternatives has always been very debatable and use of these alternatives may not result in the overall reduction of the total quantitative risk of the facility. The organization expressed concerns that a verbatim statement of consideration and/or implementation of inherent safer options has the potential for unintended outcomes, such as risk transfer, risk accumulation, increased opportunities for terrorism, and other undesirable tradeoffs. This commenter recommended that EPA should not require the IST analysis because few technologies would be inherently safer with respect to all hazards, there may not be a clear implementation path for all situations, and facilities would have to address multiple tradeoffs in the decision-making process. The commenter warned that improper implementation of a "safer" alternative may have negative consequences (0532). An industry trade association asserted that IST is a relative concept dependent on the hazard, the technology, and the facility (0536).

> **EPA Response:** EPA recognizes the risk transfer concerns raised by the commenters. However, EPA believes that the final rule will allow the owner or operator to consider the potential for quantitative risk reduction, risk transfers and tradeoffs when determining whether it is practicable to implement ISTs or ISDs considered. EPA agrees that some technologies may not be inherently safer with respect to all hazards, may not be implementable for all situations, and may involve multiple tradeoffs in the decision-making process. IST is a relative concept dependent on the hazard, the technology, and the facility. Therefore, EPA is requiring facilities to only consider IST as a possibility for addressing hazards rather than requiring ISTs be implemented. The final rule will give the facility owner or operator the flexibility to assess IST as well as passive, active, and procedural measures to reduce risk associated with a process and to determine the practicability of any IST considered based on various factors (including those involving risk transference).

2.3.4.6. Current process hazard analysis requirements and other risk reduction measures already adequate to address risks

Comment: Some facilities and industry trade associations urged that existing requirements and principles, such as PHA and Layer of Protection Analysis (LOPA), are sufficient for determining if proper safeguards are in place in existing process units (0581, 0584, 0495, 0557, 0569, 0461, 0462, 0527). Industry trade associations said that LOPA or similar risk-based analyses are more easily implemented and cost effective than IST, and stated that risk-based analyses also minimize risk shifting

(0581, 0584). A state agency urged EPA to require a LOPA but to ensure that it is clearly separated from the STAA (0586).

Facilities and an industry trade association remarked that industry has proven capable of reducing hazards from current operations by using active, passive, or procedural measures (0579, 0492, 0476). A facility and an industry trade association asked why the proposed rule is not specifically focused on STAAs for new or potential processes when, according to the commenters, nothing indicates that IST evaluations have become more beneficial or less expensive for existing process units since the 1996 RMP rule (0579, 0492).

A facility asserted that current regulations that require compliance with RAGAGEP already ensure that appropriate controls are implemented in equipment and processes (0569). An industry trade association expressed concerns that the STAA evaluation will become a paperwork exercise that will not result in any increase to safety. The commenter suggested that EPA require an IST analysis only when the PHA results indicate a technology or design scenario that is not sufficient to meet the company's appropriate risk tolerance or reduction requirements (0565).

In contrast, a union stated that the industry's understanding of RAGAGEP varies, and remarked that the proposed STAA analysis would address some of the shortcomings of RAGAGEP including grandfathering and complying with current RAGAGEP, not the RAGAGEP from the time that the process was installed. (0519).

> **EPA Response:** EPA believes that where feasible, reducing or eliminating hazards through change in materials, chemistry, or process variables is preferable to adding layers of safety to a process. While layers of passive, active or procedural controls will reduce the risk, they will do nothing to reduce the nature of the hazard itself. Failure of control devices or human error can result in an accidental release. However, inherent safety seeks to preferentially remove the hazard at the source, as opposed to accepting the hazard and attempting to mitigate the effects.[57] In addition to eliminating or reducing a hazard, IST can also minimize the impact of a release or terminate the accident sequence before there are major impacts on people, property or the environment.
>
> EPA agrees with other commenters who have indicated that the PHA can and should consider IST as hazard reduction or risk management measures where feasible and appropriate. Opportunities for the application of the inherently safer strategy of simplification can be evaluated for each safety device or procedure during a PHA as well as in review of mechanical integrity program practices and procedures - CCPS provides examples for this.[58] Although we agree that the general principles of PHA combined with LOPA may at times be appropriate to address the risk of an accidental release, EPA believes that facility owners or operators should consider IST first in the hierarchy of risk reduction measures to reduce and/or control the hazards of a process.

[57] CCPS. 2009, Inherently Safer Chemical Processes: A Life Cycle Approach. 2nd ed. American Institute of Chemical Engineers, CCPS. pp. 10-11.
[58] CCPS. 2009, Inherently Safer Chemical Processes: A Life Cycle Approach. 2nd ed. American Institute of Chemical Engineers, CCPS. pp. 112-113.

EPA does not agree that the STAA analysis would address grandfathering and complying with current RAGAGEP. EPA's requirements that equipment comply with RAGAGEP is essentially identical to OSHA's and EPA also aligns its enforcement policies with OSHA's. OSHA most recent RAGAGEP memo shows that facilities do not always need to comply with newer versions of codes and standards, as this depends upon whether updates of an organization's codes or standards explicitly provides that the new clauses or requirements are retroactive.[59] Recommended safer technologies or alternatives may or may not be considered RAGAGEP depending upon whether they are provided in a code or standard that is applicable to a particular industry.

2.3.4.7. Consideration of untested and unproven technologies

Comment: One commenter was concerned that any potential IST considered should not have to include untested and unproven technologies (0598). An industry trade association stated that the requirement to conduct an IST analysis could lead facilities to remove existing protection mechanisms and substitute them with novel but potentially untested controls (0598). An industry trade association urged that technology takes time to mature and become acceptable and safe for widespread use (0536). One commenter was concerned that operators should not be required to update or replace technology on a year-in, year-out basis simply because new technologies are introduced into the marketplace (0512). One commenter stated that any alternative considered should be easy to be applied and should have been properly tested (0532).

EPA Response: EPA agrees that a facility owner or operator may conclude that IST measures that have not been tested or used commercially should not be considered. It may be difficult to evaluate the practicability of hypothetical technologies or those that are still undergoing research and testing.

2.3.5. General opposition to safer technology and alternatives analysis

2.3.5.1. Benefits and cost of safer technology and alternatives analysis not adequately explained or justified

Comment: A facility and a number of trade associations stated that IST analysis would not meaningfully increase safety (0522, 0559). Commenters warned that analysis of existing facilities and processes is unlikely to provide significant insights or opportunities for safety improvement, but may be very costly (0550, 0560, 0570, 0565, 0594). Stating that safer technology would have been adopted if it made business sense to do so, a facility remarked that the STAA requirement is unnecessary (0525).

An industry trade association and a facility expressed concern that the process of retrofitting existing facilities would be expensive (0579, 0492, 0476) and could result in facilities shutting down (0476).

Several commenters agreed with EPA conclusions made in the 1996 RMP rule regarding an IST analysis mandate where the agency stated, "EPA does not believe that a requirement that sources conduct searches

[59] May 11, 2016 OSHA Memorandum on RAGAGEP in Process Safety Management Enforcement. https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=30785

or analyses of alternative processing technologies for new or existing processes will produce additional benefits beyond those accruing to the rule already." The commenters, including a facility and industry trade associations, warned that EPA changed its position on whether or not a mandatory IST analysis leads to any incremental benefits, without any clear rebuttal, analysis, explanation, or substantiation of benefits from the STAA and urged EPA to withdraw the STAA mandate from the proposed rule (0598, 0579, 0527, 0550, 0492, 0595, 0555). An industry trade association, agreeing with EPA's 1996 assessment, remarked that the new conclusion is based on flawed assumptions and methodology (0551, 0571). According to a facility and some industry trade associations, the claim in the preamble that voluntary adoption of IST is becoming more prevalent indicates that the incremental benefits of mandatory adoption are decreasing, which the commenter remarked would be in line with the 1996 decision not to require IST analysis (0579, 0492, 0555).

Two industry trade associations contend that there is no data to suggest that requiring an STAA analysis provides any measurable benefit or reduces the frequency or severity of incidents or any empirical studies showing that STAA effectively improves process safety (0550). They believe that the analysis of the New Jersey data for facilities conducting IST analysis since 2008 shows no decrease in reportable accidents and that revising the RMP rule would likely have a negligible effect at great cost to covered facilities. A facility and an industry trade association asked whether or not EPA's analysis of the IST programs implemented by New Jersey and Contra Costa County has yielded any concrete data demonstrating that the programs have successfully reduced hazardous safety risks over voluntary adoption (0579, 0550, 0492). The facility urged EPA to withdraw the proposed IST requirement until EPA has conducted such an analysis (0492).

An industry trade association warned that the incidents cited in the Greenpeace petition do not support mandatory STAA as they were investigated and for the most part did not result in STAA recommendations (0537).

An industry trade association remarked that the proposed rule is arbitrary and capricious on the grounds that it does not provide any evidence that STAA reduces process safety incidents and would require facilities to conduct costly analyses without actually implementing changes and offering no new benefit to public health and safety (0550). See Section 1 of this document for a discussion of legal issues.

Several trade associations commented that the regulatory burden of requiring costly IST reviews tends to stifle innovation (0594, 0521).[60] Commenters asserted that for those companies already looking to improve safety by implementing IST options, a formal IST review would add costs to a process by forcing them to document the activities they are already performing (0521). They further indicated that small operations might not have the manpower or expertise to do this and lack the resources to hire it out cost effectively. The same commenters further stated that for companies that do not implement IST options, the IST review becomes a "paper exercise" where they document why it is "infeasible" to implement these options (0521). Similarly, a few commenters warned that the IST review risks just becoming a paperwork or administrative exercise without concrete results (0550, 0360, 0521, 0565, 0560). A commenter argued that if EPA only intends for an analysis to be conducted and not for the

[60] 0521 comments represent several trade associations: IIAR, GCCA, AFFI, IARW, NAMI, RETA, and USPOULTRY.

technologies to be implemented, then the proposal should be withdrawn on the basis that it provides no benefit to the public (0492).

One trade association commented that there is no value in having a facility perform an IST assessment if one was already performed earlier in the lifecycle of the process or to repeat the same STAA every five years on the same process. The association asserts that nothing new will be learned from doing so (0358).

> **EPA Response:** EPA believes that the STAA should identify potential process changes including IST that, if implemented, would result in owners or operators using less hazardous substances, minimizing the amount of regulated substances present in a process, moderating process conditions, reducing process complexity, or implementing passive, active, or procedural changes to make processes safer. Such changes help prevent accidents by either eliminating the possibility of an accidental release entirely, by making a process more fault-tolerant, such that a minor process upset or equipment malfunction does not result in a serious accidental release, and by reducing the severity of releases that do occur. The STAA provision does not actually require the owner or operator to implement any changes, so it will only provide benefits if the facility voluntarily decides to implement changes.
>
> IST is widely recognized as a concept or principle that can be used in PSM along with other types of hazard reduction measures to eliminate or reduce the frequency and/or impact of accidents. As recognized in process safety technical literature, the benefit of using practicable IST as the first choice for accident prevention is more likely permanent risk reduction. Some trade associations agree that individual companies often consider inherently safer approaches or safer alternatives as a matter of course. In fact, one of the key elements under ACC's Responsible Care, Process Safety Code[61] requires ACC member companies to consider inherently safer approaches as one of many risk reduction measures when conducting a process safety risk assessment.
>
> Since 1996, EPA has seen that advances in ISTs and safer alternatives are becoming more widely available and are being adopted by some companies. Voluntary implementation of some ISTs has been identified through surveys and studies and potential opportunities have been identified through EPA enforcement cases and CSB incident investigations.[62] The Contra Costa County Health Services (CCHS) and NJDEP IST regulations requirements to consider IST have resulted in some facilities adopting IST measures.[63] The concept of IST is more widely understood and accepted within the chemical process industry than it was 20 years ago. Innovations and research in chemical process safety have evolved and continue to evolve. Industry change and update their processes over time for a variety of reasons and when possible, EPA believes that opportunities to improve chemical process safety using all available means-not only passive, active, and procedural measures-should also be considered.

[61] ACC. 2016. Responsible Care Process Safety Code /Responsible-Care-Program-Elements/Process-Safety-Code/Responsible-Care-Process-Safety-Code-PDF.pdf
[62] For more information see the preamble of the proposed rule at 81 FR 13663-13665, March 14, 2016.
[63] For more information see the preamble of the proposed rule at 81 FR 13665-13666, March 14, 2016.

EPA disagrees that increasing voluntary adoption of IST means that incremental benefits of mandatory adoption are decreasing. Benefits derived by those implementing IST do not negate any potential benefits from those who have not. As stated in the 1996 rule:

> "EPA encourages sources to continue to examine and adopt viable alternative processing technologies, system safeguards, or process modifications to make new and existing processes and operations inherently safer."[64]

For those facilities who have not considered adopting any IST or have only done so in limited fashion, EPA believes that there is value in requiring facilities with extremely hazardous substances to evaluate whether they can improve risk management of current hazards through potential implementation of ISTs or risk management measures that are more robust and reliable than ones currently in use at the facility. For those facilities who have already considered IST, EPA believe facilities should re-evaluate whether any improvements in hazard or risk reduction can be made and we believe the five-year re-validation timeframe of the PHA is an appropriate time period for such re-evaluation.

EPA did not perform any further analysis of the NJDEP or Contra Costa County IST data. The main purpose of providing these reports was to demonstrate that regulations involving IST in these two jurisdictions resulted in implementation of IST at some of their facilities and to explain what types of IST were implemented. NJDEP's 2010 IST Implementation Summary report[65] on IST reports submitted by NJ facilities since August 2008 is available in the docket and discusses 143 additional IST measures reported to have been implemented or scheduled to be implemented by 41 of the 85 facilities submitting reports. CCHS and Richmond CA annual performance review and evaluation reports on the ISO include a summary of Inherently Safer Systems (ISS) results from their nine total facilities as well as the actual ISS data reported by each facility. Three of these reports are in the docket for this rulemaking.[66]

Because the requirements involve prevention of accidents before they occur, it is difficult to provide a quantitative assessment that the requirement would reduce a certain number of accidents. The assertion of increase in the number of NJ accidents reported cannot be explained as a result of implementation or non-implementation of IST because there are probably too many other factors involved. For example, the number of NJ facilities reporting over the years varies, which can affect the number of reportable accidents and not all NJ facilities may have implemented IST. In principle, because of the "inherentness" of any actual IST changes, there should be a hazard and risk reduction for a particular RMP chemical, because IST eliminates or minimizes the opportunities for a chemical release in a more rigorous fashion than relying on a device or human intervention. EPA recognizes that IST will not eliminate all hazard or risk and

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[64] See 61 FR 31700, June 20, 1996.
[65] https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0143.
[66] https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0147, https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0148, and https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0149.

that reliance of other risk reduction measures will probably still be needed for other points in a process.

Contra Costa County commented that it has seen improvements at existing facilities with existing processes subject to its ISS requirements.[67] The county indicated that facilities have eliminated unnecessary vessels, shortened piping, and replaced chemicals with less toxic chemicals. CCHS has seen that by considering ISS, facilities have looked at the highest level of risk reduction such as using passive means (such as a change in metallurgy) instead of relying on administrative means (such as increased piping inspections).

As some commenters indicated, some facilities have been evaluating IST as a best practice for decades and, in most cases, have already taken steps to implement beneficial technologies where it is practicable and cost-effective to do so. In those situations where IST was previously evaluated but not implemented, facilities should review the analysis to determine if new information is available that would affect the analysis. The facility should document the STAA and practicability of IST and ISD considered.

Comment: An industry trade association (0537) warned that specific chemical incidents cited in the Greenpeace petition do not support mandatory STAA because they were investigated by the CSB whose recommendations suggest that stronger adherence to existing PSM and RMP requirements would have prevented the incident, not new STAA analyses.

EPA Response: The Greenpeace petitioners cited the several accidents investigated by CSB, that in the petitioners' view, were examples of risk that should have been addressed by taking steps to eliminate or minimize extremely hazardous substances. The CSB reports generally focus on root causes of accidents and failures of existing safeguards in place, but do in some cases have discussion of IST.

For the 2009 release of hydrofluoric acid at Citgo in Corpus Christi, Texas, the CSB did not discuss use of IST or STAA analysis.[68]

For the 2007 chlorine release at Valero McKee refinery in Sunray, Texas, the CSB reported in their investigation report (and the commenter also cited) that biocides inherently safer than chlorine are available and Valero had planned to replace chlorine in cooling water treatment at all its refineries as a safety goal in its 2008-2012 Strategic Plan.[69] CSB had recommend that Valero was implement this strategic plan to replace chlorine used as a biocide.

The CSB concluded that the propane release that resulted in the fire at Valero, was caused by a freeze-related failure of dead-leg piping. CSB noted in their report that the preferred way to control hazards is to eliminate them where possible, citing CCPS' *Inherently Safer Processes, A Life Cycle Approach* (1996) and concluded that the best approach for managing dead-legs, such as

[67] https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0450
[68] CSB. December 9, 2009. CITGO Refinery HF Release and Fire, Corpus Christi, Texas. Final Report, Urgent Recommendation. http://www.csb.gov/citgo-refinery-hydrofluoric-acid-release-and-fire/
[69] CSB. July 9, 2008. Investigation Report: LPG Fire at Valero-McKee Refinery, Sunray, Texas, February 16, 2007. Report No. 2007-05-I-TX. http://www.csb.gov/assets/1/19/CSBFinalReportValeroSunray.pdf

the propane mix control station, was to remove them. CSB stated that if removing the dead-legs was impractical, other approaches, in order of decreasing protective value, could include 1) positively isolating the dead-leg by installing slip blinds; 2) freeze-protecting them; or 3) procedures to regularly monitor and drain water from low points. Thus, CSB was discussing the use of the hierarchy of controls to address hazards, similarly as in the proposed STAA requirements. The CSB Valero report also discussed fireproofing as a passive defense that can maintain the integrity of protected structures until a fire is controlled. Passive measures are preferred over active or procedural risk reduction measures.

The CSB investigation of the 2008 Bayer CropScience accident in West Virginia[70] involving a methyl isocyanate (MIC) tank resulted in Congress requesting the CSB to commission a study with National Academy of Sciences (NAS) on the feasibility of implementing safer alternative chemicals and processes. While the CSB report does not cite a lack of an STAA as a deficiency or root cause, it does discuss possible alternatives to the use and storage of MIC and Bayer's plans to reduce MIC storage at the facility. After examining the Bayer accident and community concerns surrounding MIC (and other highly toxic materials), the NAS panel of experts found in 2012 that inherently safer process assessments can be valuable components of PSM.[71] The NAS report found that while Bayer and previous owners of the site incorporated some considerations of IST, these companies "did not perform systematic and complete inherently safer process assessments on the processes for manufacturing MIC or the carbamate pesticides at the Institute site." Thus large amounts of MIC, phosgene, and other toxic materials were produced or stored at the site for decades. Before the NAS study was completed, Bayer planned to end the production of the pesticides aldicarb (through agreement with EPA) and carbaryl by mid-2012, and thereby eliminate the production, storage, and use of all MIC and phosgene.

2.3.5.2. Inconsistent safer technology and alternatives analysis implementation

Comment: A facility remarked that the lack of clarity and consensus about the methodology or standards for STAA would contribute to burden and could lead to inconsistent implementation of STAA across companies (0526).

EPA Response: EPA does not expect to see consistent implementation of STAA. The STAA requirements are not prescriptive in nature, but more similar to a performance-based standard (like other provisions of the RMP regulations) that give facilities the flexibility and discretion to determine what technology or risk reduction measures work best for their particular chemical use, process or facility. However, in an effort to ensure a consistent understanding of EPA's expectations for conducting an STAA and determining practicability of IST and IST considered, the final rule will define several terms related to the STAA, such as practicability, IST or design, passives measures, active measures and procedural measures. EPA has also cited various

[70] CSB. January 2011. Investigation Report: Pesticide Chemical Runaway Reaction Pressure Vessel Explosion, Bayer CropScience, LP, Institute, West Virginia, August 28, 2008. Report No. 2008-08-I-WV, pp. 88-89, http://www.csb.gov/assets/1/19/Bayer_Report_Final.pdf

[71] NAS. 2012. Summary- The Use and Storage of MIC at Bayer CropScience. pp. 3, 7. http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/MIC-Summary-Final.pdf

references and technical sources of information that explain the concepts and principles of STAA and provides examples.[72]

2.3.5.3. Impact to agribusinesses

Comment: An industry trade association stated that the proposed mandate for regulated facilities to consider STAA as a part of the PHA, and to evaluate the feasibility of IST, will fail to generate tangible RMP outcomes in the fertilizer industry or with other ag-industry RMP regulated chemicals, beyond what the current PHA requirements and procedural measures can accomplish in controlling hazards. The commenter further asserted that the administrative and recordkeeping burden associated with this portion of the proposed rule will undoubtedly increase costs on the agribusiness industry at a time when margins across the industry are thin to non-existent. The same commenter indicated that these requirements will cause many small agricultural fertilizer retail facilities to close (0458).

A trade association representing the fertilizer industry, commented that specifically as applied in the fertilizer industry, any approach that would mandate consideration of "safer technology and alternatives" (or, worse, presumptively require implementation thereof), would have little relevance or consistency among the diverse processes, formulations, and applications relevant to fertilizer (0598). Few if any facilities would be able to implement IST in a way that meaningfully increased safety performance. These processes constantly evolve within the fertilizer industry (*e.g.*, to cater to the specific nutrient needs of individual farmers, or specific crops and fields they cultivate (among other agronomic considerations)), as does the technology that allows these processes to successfully deliver AN, anhydrous ammonia, and other important fertilizer products to consumers. Forcing fertilizer companies to incorporate an ill-fitting analytical approach to their operations would simply multiply their existing RMP compliance costs, and ultimately pass those costs through to farmers and consumers (0598).

EPA Response: EPA is not requiring agricultural fertilizer retail facilities to perform STAA and thus there should be no burden to this particular industry as a result of the STAA provision. The STAA requirement in the PHA will only apply to Program 3 facilities in chemical manufacturing (NAICS code 324), petroleum and coal products manufacturing (NAICS code 325) and paper manufacturing (NAICS code 322).

2.3.5.4. Feasibility costs

Comment: One trade association stated that the cost of determining feasibility was wholly underestimated by EPA because feasibility study costs can be quite large depending upon the type of project, but still be only a fraction of the cost of what it would take to implement any projects

[72] CCPS. 2009, Inherently Safer Chemical Processes: A Life Cycle Approach. 2nd ed., https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0253;
CCPS. July 2010. Final Report: Definition for Inherently Safer Technology in Production, Transportation, Storage, and Use, https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0274;
Contra Costa Hazardous Materials Program. June 15, 2011. Industrial Safety Ordinance Guidance Document, Attachment C - Inherently Safer Systems Checklist. Contra Costa County Health Services, Martinez, CA, https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0146;
NJDEP. January 15, 2015. Guidance for Toxic Catastrophe Prevention Act (TCPA), Inherently Safer Technology (IST), https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0142.

determined to be feasible (0536). The commenter noted that a typical project consists of conceptual level design, feasibility level design, and then engineering and implementation. The association member's experience with hundreds of projects is that the cost of a conceptual level design is about 1% of the total project cost and the cost of a feasibility level design is 1% to 2% of the total project cost.

> **EPA Response:** EPA acknowledges that for some industries, evaluation of chemical substitution and process redesign will involve a greater level of effort and resources to consider the practicability of such changes. EPA has revised the cost estimates in the RIA to reflect the greater effort involved in conducting feasibility studies.

2.3.6. Model safer technology and alternatives analysis provisions after other regulatory programs

Several commenters suggested that the STAA requirement align with similar requirements by CCHS and the NJDEP. Some of these comments were addressed under other STAA topic headings, as appropriate. Other specific comments are discussed below.

2.3.6.1. Establish qualifications for inherently safer technology review team.

Comment: An advocacy group encouraged EPA to incorporate lessons learned from NJDEP's program to promulgate a strong final rule. The commenter recommended expanding on the NJDEP requirement which specifies that an IST review team should be "a team of qualified experts, convened by the owner or operator, whose members shall have expertise in environmental health and safety, chemistry, design and engineering, process controls and instrumentation, maintenance, production and operations, and chemical process safety." The commenter recommended that EPA require the names, qualifications, and experience of team members to be stated in the review report and to explicitly specify that workers and union representatives can fully participate in the STAA (0470).

> **EPA Response:** Section 68.67 requires that the PHA shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific PHA methodology being used. These same qualifications apply to team members involved in conducting the STAA. EPA believes most PHA reports already include the names and qualifications of team members in the report and we do not believe it is necessary to prescribe a regulatory requirement to address this issue. EPA already requires Program 3 facilities to consult with their employees and their representatives on the conduct and development of PHA and on the development of other elements of PSM and EPA believes it would be inappropriate to incorporate additional provisions related to worker participation in the PHA requirements of § 68.67.

2.3.6.2. Contra Costa County Health Services Industrial Safety Ordinance

Comment: Many commenters, including a professional organization, a Federal agency, and an environmental advocacy coalition of approximately 140 commenters, encouraged alignment with Contra Costa County's Industrial Safety Ordinance (CCHS ISO) (0360, 0428, 0450, 0575). A commenter stated that the critical components of Contra Costa's requirements include requiring facilities to implement all recommendations from safety analyses unless the facility can prove there is a valid reason not to do so, and incorporating each facility's analysis into a written safety plan that is reviewed by regulators (0360).

An environmental advocacy coalition of approximately 140 commenters encouraged the inclusion of a documentation requirement similar to the one developed by CCHS ISO (0575).

A Federal agency recommended incorporating a goal setting requirement similar to that of CCHS ISO as well (0428), expressing concern that a lack of goal setting requirements could allow regulatory requirements to be satisfied even if analyses fail to identify or control major hazards. The commenter explains that there is no RMP requirement to reduce risks to "as low as reasonably practicable," or "ALARP", while CCHS ISO requires facilities to select and implement ISS to the greatest extent feasible and as soon as administratively practicable (0428).

> **EPA Response:** EPA disagrees with commenters. EPA did base some components of the STAA requirement on CCHS regulations. CCHS requires an ISSA for existing and new processes every five years, but the analysis can be done as part of a PHA.[73] CCHS also requires an ISSA for any major changes (which could be result of accident investigation). EPA is requiring the five-year PHA revalidation address the findings from all incident investigations required under § 68.81, as well as any other potential failure scenarios. EPA's proposal does not require any implementation of any IST. It requires facilities to determine the feasibility of IST options, but the final rule will allow flexibility for facility owners or operators to decide whether to implement an IST in order to allow them to balance the appropriateness of the technology for their process, costs, risk transfer and other requirements that would have to be met along with possible integration with the use of existing risk reduction measures in place.
>
> Requiring risk reduction to be "ALARP" is a standard that can be seen as stricter than the "to the greatest extent feasible" requirement set by CCHS and could require that health and safety risk reduction takes precedence over any costs and would not allow balancing of costs and benefits unless adopting a measure would cause a grossly disproportional sacrifice.[74] EPA does not believe that adopting a requirement that facilities reduce risks to "as low as reasonably practicable" is advisable for the RMP program because there are no set standards to define what level of risk is reasonably practicable for the variety of chemicals, processes, and hazards involved.

2.3.7. Feasibility

2.3.7.1. Insufficient guidance and clarity for methodology for comparing risks

Comment: A facility, a local agency, and industry trade associations, among others, remarked that IST cannot be meaningfully and consistently implemented because there is no consensus in science or among the industry on its definition, how to implement it, or how to measure its effect (0579, 0491, 0598, 0537, 0561, 0492, 0530). Stating that the concept of IST is vague, an industry trade association said that multiple factors are taken into account when making a determination of feasibility, including materials used for equipment (0463).

One commenter stated that the feasibility factors in the proposed STAA provision also provide no guidance on how to measure or balance risks or hazards (0492). This commenter noted that there is no

[73] http://cchealth.org/hazmat/pdf/iso/Chapter-450-8-RISK-MANAGEMENT.pdf
[74] http://www.hse.gov.uk/risk/theory/alarpglance.htm.

simple way to measure whether one process is safer than another or when a process is "safe enough" as discussed in the July 2010 DHS report by CCPS. The commenter indicated that the proposed rule does not address a multitude of critical questions: What does the PHA team measure? Does the team evaluate reduction in particular hazards or in overall risk? Is that reduction measured quantitatively or qualitatively? Who or what is the required beneficiary of that reduction—the employees, the adjacent community, the environment? What level of risk is tolerable? If EPA requires STAA analysis under the final RMP rule, it will necessarily need to become involved in measuring, evaluating, and determining the tolerable level of risk. It is unlikely that EPA has the expertise or bandwidth to take this on (0492).

An industry trade association remarked that the proposed requirement to address "any other potential failure scenarios" in § 68.67(c)(2) is burdensome and vague, and said that facilities would have trouble determining whether or not they are considered to be in compliance. The commenter recommended removing this requirement (0594).

A facility and an industry trade association asserted that the proposed STAA provision provides insufficient guidance on the measurement of hazards and risks, and requested more clarification about the responsibilities and duties of the PHA team (0492, 0579).

> **EPA Response:** EPA based its definition of IST upon CCPS' descriptions of inherently safer strategies and its definition of practicability upon CCHS' definition of feasible in their ISO. EPA has existing requirements under § 68.67 for facilities to evaluate and control hazards in the process and to establish a system to address the PHA's team findings and recommendations. Management response to hazard evaluation studies and recommended options involve risk management considerations that are developed based on a facility's risk tolerance criteria. EPA has not prescribed how facilities define or manage risk, whether it involves conforming to minimum standards such as codes or tries to reduce risk to as low as reasonably practical or whether it uses risk matrices or assess qualitative or quantitative risk. EPA expects only that facilities consider IST as one of the types of risk management measures employed. For further information, EPA recommends consulting Chapter 9-Hazard Identification and Risk Analysis in the 2007 CCPS Guidelines for Risk Based Process Safety.[75]

2.3.7.2. Efforts involved for determining feasibility

Comment: One commenter asserted that EPA has failed to consider the substantial complexity of the activities it is proposing to require, and the significant burden that will be placed on facilities with multiple or complex RMP regulated processes. The commenter cited issues involved with many chemical manufacturing processes that involve multiple optimizations of complicated reactions and integration of many processes with each other. The commenter cited as an example, the efforts by the NAS to identify and evaluate the many individual alternative paths to MIC production for potential safer operations.[76] The commenter stated that each alternative then had implications for the facility, the customer, the surrounding community and numerous other factors that needed to be identified, considered and weighed carefully. The commenter further explained that these factors included the costs of the chemicals, labor and energy

[75] CCPS. 2007. Guidelines for Risk Based Process Safety. American Institute of Chemical Engineers, CCPS, NY, Wiley. Chapter 9-Hazard Identification and Risk Analysis.
[76] National Research Council of the NAS, The Use and Storage of Methyl Isocyanate (MIC) at Bayer CropScience, 2012. https://www.nap.edu/catalog/13385/the-use-and-storage-of-methyl-isocyanate-mic-at-bayer-cropscience.

requirements, new capital expenditures, quality of the product and revenues expected from its production, environmental impacts anticipated from the process, regulatory constraints, environmental policy and regulations and influence of local community on company decision making. The commenter indicated that many of these characteristics involve a substantial degree of uncertainty. The commenter also stated that the framework for decision-making discussed by NAS is akin to the proposed EPA requirement to perform a feasibility analysis for all ISTs considered. The commenter concluded that under the EPA proposal, complex chemical manufacturing RMP facilities would be required to go through this analysis multiple times for each and every regulated process (0537). A local agency requested that the IST decision process and the evaluation of feasibility should consider the entire life cycle or risks, including hazards, conditions of use, and the likelihood of an event, as well as implementation timelines and costs (0530).

> **EPA Response:** EPA believes a practicability determination for any considered IST or ISD is necessary to ensure the facility owner or operator seriously considers whether IST or ISD modifications could further reduce risks and prevent accidents at the facility. EPA expects that facilities will only evaluate chemical substitutes that have already been shown to be commercially viable and does not expect facility owners or operators to expend a major effort on hypothetical or untested chemical substitutes or uses.

2.3.7.3. Insufficient time to complete the feasibility analysis

Comment: One commenter stated that when evaluating IST, a facility owner may at times be able to reject an alternative based on determining a single basis of infeasibility (0495). The commenter asserted that if there is no known rationale for infeasibility, a facility may need to conduct lengthy and costly engineering studies, which would require a unit revamp on an existing process unit. The commenter further stated that under such circumstances, feasibility or practicality must consider unit congestion and constructability in addition to all of the issues associated with a new process. The commenter indicated that this need to perform detailed engineering study/design, in many cases, is indicative of impracticability. The commenter concluded that the proposed rule allows four years after the rule become final for each PHA to consider IST/ISD alternatives for covered processes and, in the event the EPA decides to include this requirement in the final rule, facility owners should be allowed a second PHA cycle, following the four-year applicability, where the determination of feasibility or practicality requires engineering studies and design (0495). A facility said that the proposed feasibility analysis does not allow sufficient time to complete the necessary work and recommended that the time frame be determined on a case by case basis (0531).

> **EPA Response:** Where a practicability evaluation is complex and resource intensive and may not be completed within the four-year compliance timeframe from the final rule or within the five years between PHA reviews, a facility should document during their PHA review that the IST is under consideration and that the feasibility is unknown and still undergoing evaluation.

2.3.7.4. Feasibility decisions made by facilities or outside parties

Comment: An advocacy group argued that, if decisions are left up to facilities themselves, the economic interests of the facilities will outweigh considerations of public health. The advocacy group concluded that an independent body should be tasked with reviewing facilities' IST/ISD evaluations to determine feasibility and prevent self-regulation (0543). Some local agencies asserted that stationary sources rather than a regulatory body should determine the feasibility of ISD and document their decision (0450, 0453).

EPA Response: EPA disagrees that practicability decisions should be made by outside parties. These decisions are based on site-specific circumstances that a third-party may not have the experience to evaluate. EPA believes it would not be practical for many reasons including: the delay that may result in finding a third-party to assess practicability; the variety of factors that must be considered in establishing a basis for choosing an outside party (e.g. there may not be enough qualified third-parties with the expertise and resources to evaluate the various options and processes for the number of facilities subject to this provision); and the need to protect CBI and sensitive information that could reveal security vulnerabilities.

2.3.7.5. Feasible definition does not take into account removal of existing safeguards

Comment: One commenter stated that the proposed definition for feasible precludes any reasonable basis for replacing existing controls and safeguards that have already been identified and implemented to address the risks. This commenter believes that since all the engineering and administrative controls necessary to address risk have already been identified and implemented in an operating plant, it is not appropriate to require a repeated analysis of alternatives that that are not feasible for an operating plant (0560).

EPA Response: EPA disagrees with the commenter. The definition of practicability in the final rule is not intended to be used to judge the reasonable or effectiveness of existing risk reduction measures, but whether new IST measures could be implemented. The STAA requirements will allow a combination of risk measures to be used to achieve the desired risk reduction; therefore, they do not necessarily preclude the use of existing controls and safeguards.

2.3.7.6. Feasibility factors go beyond scope of process hazard analysis

Comment: Commenting on the five factors mentioned in the definition of feasibility, an industry trade association asserted that requiring consideration of these factors goes beyond the scope of a PHA (0598).

EPA Response: EPA disagrees. While the PHA identifies the hazards, the RMP PHA requirements require the facility to identify the risk management measures applicable to eliminating or reducing the risks from the process hazards. EPA believes that it is appropriate for a facility to consider the five feasibility (now practicability) factors ("economic, environmental, legal, social and technological") for evaluating the appropriateness of implementing for potential IST measures because some IST can involve significant costs or involve impacts that go beyond the facility.

2.3.7.7. Feasibility does not take into account full supply chain

Comment: An industry trade organization and a facility warned that the proposed definition of "feasible" does not sufficiently consider costs and benefits and fails to take into account the full supply chain (0527, 0595).

EPA Response: EPA disagrees that the practicability determination does not allow facilities to take into account costs and benefits and the effect on the full supply chain. The STAA requirements will not require any implementation of any particular IST. EPA expects that facility owners or operators will seriously consider the merits and consequences of ISTs for their facilities and use their expertise and judgement to ensure safety while not severely affecting the

economic viability of their businesses. Facilities can consider the effects in their supply chain (downstream and upstream) when evaluating potential IST options.

2.3.8. Inherently safer technology implementation

Comment: Commenters such as a facility and a few industry trade organizations urged that the best approach would be to allow operators to decide which measures, methods, or IST components would be feasible at their facilities (0579, 0476, 0495, 0561, 0492, 0551, 0565). An industry trade organization requested that EPA include language stating that "the scope of the STAA for a regulated process will be based on the expert judgment of owners and operators." The commenter cited an example where reducing the volume of chlorine dioxide on-site at a paper mill may not be practical because a minimum amount is needed to ensure that production of pulp and paper can continue when operation of the chlorine dioxide generator is momentarily disrupted due to maintenance or other issues. The commenter also cited another example in which that eliminating the use chlorine dioxide for bleaching may not provide the necessary characteristics of the finished product (0551).

Many commenters, including multiple mass mail campaigns joined by approximately 24,610 commenters and advocacy groups, urged that upon identifying alternatives in an analysis, facilities should be required to switch to the safest cost-effective chemicals and technologies available (0315, 0371, 0603, 0488, 0603, 0470, 0488, 0543, 0578, 0597). An environmental advocacy coalition of approximately 140 commenters warned that if facilities are not required to implement feasible alternatives, they would not do so in a reasonable timeframe. The coalition also warned of the possible competitive disadvantage that facilities would experience if they chose to implement IST voluntarily. The coalition recommended exercising the CAA's "Bhopal" provisions in sections 112 (r)(1) and 112 (r)(7)(A) to facilitate the identification of and conversion to safer chemicals (0575). A commenter urged that required implementation of feasible alternatives would reduce the risks associated with catastrophic release, including from terrorist attacks, and would be important for protection of public health (0315).

An industry trade association requested clarification as to whether under an IST requirement, operators would be required to adopt new technology as soon as it became available on the market (0512).

One commenter wanted IST to be implemented wherever feasible because IST is likely to be more effective and less costly in the long run than other safeguards, noting that the existing rule requires that facilities implement the recommendations from a conventional PHA (0360). This commenter also stated that EPA should model its implementation requirements on California's Contra Costa County ISO, which directs companies to "select and implement each inherently safer system identified to the greatest extent feasible and as soon as administratively practicable" or consider California's Department of Industrial Relations current proposed requirements for refineries which directs each facility to "implement all recommendations" from inherent safety analyses, unless the facility can demonstrate that a recommendation is factually flawed or infeasible on grounds other than cost alone (0360).

Some commenters suggested that EPA implement a pilot program requiring IST implementation for a subset of sectors considered extremely high risk, such as water treatment plants or hydrogen fluoride refineries (0315, TRANS-04). A local agency expressed support for implementing ISS throughout the life of a process (0450, 0467).

A professional organization cited the benefits of implementing IST wherever feasible, and concluded that the rule should place the burden on covered facilities to implement feasible IST approaches in the same manner that the existing rule requires facilities to adopt the recommendations of a conventional PHA (0360). An environmental advocacy coalition of approximately 140 commenters stated that EPA has the legal authority to impose design and operational requirements to prevent releases (0575). See Section 1.1 for discussion of comments pertaining to legal issues and EPA's authority to enforce this provision.

A Federal agency said that by only requiring entities to "consider" IST ISD during the PHA process, the rule would be allowing companies to perform an insufficient analysis and still meet the requirement (0428). The commenter described the findings of the accident investigation at Chevron's Richmond refinery as an example of how conducting an IST analysis might ensure implementation of safer measures (0428). An industry trade association remarked that it would be best to state that the use of an alternative material may have delayed the material's failure but that it would be inaccurate to claim that the accident could have been prevented by alternative material (0536). The commenter urged that the approach to the solution should be to ensure that the site has an adequate mechanical integrity program (0536).

A few industry trade associations and a facility expressed support for EPA's decision not to require implementation of feasible safer alternatives (0560, 0581, 0584, 0594, 0476, 0492, 0527, 0536). However, according to a facility and industry trade associations, EPA failed to account for significant implementation costs and resources if it intends for any of the feasible technologies to be implemented (0581, 0584, 0492, 0528). An industry trade association expressed concern that EPA will use the analyses to mandate IST adoption outside of rulemaking, such as through consent decrees (0536).

Because EPA is not requiring implementation of IST, an industry trade association encouraged that facilities should be allowed to choose which safeguards are most appropriate to implement in order to keep the performance-centric component of RMP intact (0594).

An industry trade association said that in their industry, operations are diverse and are constantly evolving, making it difficult to implement IST (0598). A few industry trade associations warned that substitution is not a legitimate option for their industries, for manufacturing of agricultural products or in fragrance industry, for example (0561, 0571). Stating that active ingredients in fragrances are extremely specific and non-fungible, an industry association commented that any substitution of fragrance ingredients should be done at the point of design to minimize the threat to fragrance businesses (0561). The commenter requested that EPA provide a clear statement acknowledging the infeasibility of substitution in the fragrance industry (0561).

> **EPA Response:** EPA agrees that the facility is in the best position to decide what safeguards or risk reduction measure can be employed to eliminate or reduce process hazards. Facilities must consider safeguards, in the following order of preference: IST, passive, active or procedural measures; however, the rule does not automatically require the facility to implement the measures preferentially in that order. EPA recognizes that for any particular hazard point, any one of the four types of safeguards may not exist or may not be practicable for a variety of reasons. EPA also recognizes that facilities may wish to employ more than one safeguard.
>
> The purpose of the STAA requirement is to ensure that facilities consider the available options and for them to find the best method for the facility to address accidental releases. This approach

is consistent with the current PHA requirements which provide flexibility for the owner or operator to decide which safeguards are appropriate to prevent accidental releases.

EPA is not requiring implementation of IST at any facility because we believe that only the facility has the expertise and resources to determine whether implementation of any IST or ISD should be undertaken, taking into account that many factors that must be considered when substituting a chemical or modifying a process, including cost, risk transfers, technological hurdles, etc. Facilities that choose to adopt the use of IST or ISD can eliminate or reduce hazards by using different materials and/or process conditions which would make accidental releases less likely, or the impacts of such releases less severe. The results of the practicability determination must be documented as part of the current PHA requirements in § 68.67(e), which requires the owner or operator to document actions to be taken and resolution of recommendations.

Also, EPA does not believe we should establish a required timeframe for any planned implementation of IST. Planning, design, equipment modification and cost to implement IST can vary tremendously depending on the technology and scope of the project and could only be best determined by the facility involved in such implementation.

EPA acknowledges that chemical substitution or whole design processes may be not practicable for some processes for a variety of reasons and that facilities should document these reasons for any particular IST that were considered by the facility for purposes of complying with the STAA requirements.

Comment: An industry trade association expressed opposition to any EPA mandate that would require facilities substitute safer alternative chemicals for existing products. The commenter stated that other anti-chemical groups contend that the [STAA] option could be used to replace, or in the environmental context, supplement existing PSM and RMP safety requirements with a system that requires employers to present to regulators a structured argument, supported by a body of evidence, that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment. The commenter asserted that changing the regulatory structure utilizing a "safety case" model will create additional confusion and do little to improve safety. Furthermore, the commenter stated that the CSB also declined to make this recommendation to the state of California, in response to the Chevron explosion. The commenter concluded that the "safety case" would be a major departure from the current regulatory model, and requires legislative action to implement (0571).

EPA Response: EPA is not requiring that facilities implement any IST considered in the STAA analysis and has not proposed to change the RMP regulations to utilize a “safety case” model.

2.3.9. Security and risk

2.3.9.1. Terrorism

Comment: A commenter cited increased risks of global and domestic terrorism as a reason to broaden the applicability of STAA requirements (TRANS-20). A commenter stated that the existing RMP provisions already require the PHA team to consider safer alternatives, and warned that explicitly stating consideration or implementation of IST can expose facilities to risks such as increased opportunity for terrorism, risk transfer, and risk accumulation. The commenter remarked that chemicals are highly

dependent on processes, so it would be difficult or impossible to identify an absolute safer alternative. The commenter concluded that facilities should asses the total risk reduced by implementation and stated that any alternative should be easily applied and properly tested (0532).

> **EPA Response:** EPA acknowledges that transportation and storage of liquid chlorine can pose risks, not only from accidental releases, but from intentionally caused releases. However, EPA is limiting the scope of applicability of the STAA requirements in order to balance the regulatory and administrative burdens of assessing IST against the accident rate and possible opportunities to employ IST because of process complexity for various industries. EPA believes that the industries subject to the STAA provisions are also more likely than others to have the expertise and resources to properly assess and implement IST.
>
> In response to the commenter's concern that explicitly stating consideration or implementation of IST can expose facilities to risks, EPA believes that the STAA provisions in the final rule will provide enough flexibility for owners and operators to consider a hierarchy of risk management measures to minimize the hazard of a process without prescribing an approach that could compromise facility security or transfer or increase risks. The STAA requirement will not require IST implementation but instead allows the facility owner or operator to determine whether an IST considered would achieve a reduction in risk, specific to the hazard being addressed. More specifically, the STAA requirement will allow for a combination of risk management measures to be used to achieve the desired risk reduction. This flexibility acknowledges that there is not always an absolute safer alternative to a chemical, which is highly dependent on the process or application and the chemical involved. EPA is also requiring the facility to evaluate the practicability of any IST or ISD considered to account for economic, environmental, legal, social, and technological factors. Environmental factors would include consideration of potential transferred risks for new risk reduction measures. This allows facilities to carefully consider whether an IST could create new risks or security concerns, including those involving terrorism.

2.3.9.2. Security concerns related to safer technology and alternatives analysis documentation

Comment: An industry trade association urged that if IST is applied to a certain process, methods should be available for additional review. For example, the commenter said that documentation of information should be considered from a homeland security and infrastructure standpoint (0495).

> **EPA Response:** EPA agrees that documentation that could reveal vulnerabilities at an RMP-regulated facility must be secured. Therefore, although EPA is requiring facility owners and operators to document STAA and practicability determinations, EPA is not requiring this information to be submitted to implementing agencies, LEPCs or local emergency response officials.

2.3.10. Safer technology and alternatives analysis documentation

2.3.10.1. Extent of safer technology and alternatives analysis documentation

Comment: Some commenters urged EPA to require sufficient, detailed documentation of feasibility and alternatives (0334, 0450, 0470, 0470, 0575, 0586). Two advocacy groups suggested that entities should be required to document economic benefits as well (0470, 0575). In addition, an environmental advocacy

coalition of approximately 140 commenters asserted that by requiring sufficient documentation of alternatives, EPA would facilitate the incorporation of safer design principles into the PHA and would enhance the integrity of the process (0575). The coalition encouraged a more extensive documentation of feasibility similar to the program in Contra Costa County, California (0575). Many commenters, including the environmental advocacy coalition of approximately 140 commenters, remarked that EPA should require RMP submissions to indicate IST options evaluated, those chosen for implementation with timeframe, and why each IST option was selected or not selected (0334, 0519, 0575). Many commenters suggested that these options could include cost, technical feasibility, conflict with other regulation, associated hazards, or other reasons (0334, 0519, 0575).

An industry trade association asserted that any requirement for entities to determine or document feasibility would be beyond EPA's authority and would be inappropriate because it does not provide sufficient detail of what would be required in a "determination" or information about how the determination was considered (0537). See Section 1 of this document for further discussion of legal issues. An industry trade association expressed general opposition to a documentation requirement (0594). A state agency requested clarification as to what type of documentation would be required in order to demonstrate compliance (0446).

> **EPA Response:** EPA is not specifying any particular form of documentation for STAA given the potential complexity of analysis, variety of risk reduction measures involved and the factors that may be considered for feasibility and/or implementation. Facilities should retain any reports, analysis, findings and recommendations used to comply with the STAA requirements for the life of the process as is required by § 68.67(g). For IST/ISD measures considered, facilities should document the analysis and methodology used to evaluate or consider IST, its feasibility and the recommendations of the review team. Facilities may follow, for example, guidance for IS Review Documentation found in CCPS's Inherently Safer Chemical Processes, which suggests documenting the summary of the approach used for the IS review (i.e. methodology, checklist, etc.), names and qualifications of the review team, IS alternatives considered, as well as those already implemented or included in the design, results of each consideration including those not considered and why, documentation of feasibility and rationale for rejection of IS opportunities. Facilities must provide in their RMP, any IST/ISD measures implemented since the last PHA, if any, and the technology category (substitution, minimization, simplification and/or moderation) (§ 68.175(e)(7)).

2.3.10.2. Confidential business information

Comment: A facility expressed concern that changes in process technology would qualify as CBI and urged that provisions would need to be in place to allow CBI claims related to IST/ISD implementation (0461). An environmental advocacy coalition of approximately 140 commenters said that facilities should have the ability to withhold CBI based on existing standards when they submit their STAA to EPA (0575).

> **EPA Response:** EPA is not requiring the STAA or its documentation within the PHA to be automatically submitted to EPA nor to anyone else, but such analysis or documentation must be kept as records under the recordkeeping requirements of § 68.200 and be available for inspection or review by EPA. Owners or operators may assert claims of CBI for information requested by

EPA following the procedures in §§ 68.151 and 68.152 if the information meets the criteria set forth in 40 CFR 2.301.

2.3.11. Availability and/or submission of safer technology and alternatives analysis documentation

Comment: Many commenters, including multiple mass mail campaigns joined by approximately 22,400 commenters, a Federal agency, and advocacy groups, stated that RMP facilities should be required to submit their STAA information to EPA (0315, 0507, 0519, 0576, TRANS-12, TRANS-07, TRANS-06, 0428, 0575, 0518, 0480, 0488). Elaborating on STAA submission to EPA, an environmental advocacy coalition of approximately 140 commenters plus other commenters suggested that the submitted STAA information should be included in the RMP National Database (0507, 0575, 0334, 0470). A union supported reporting STAA summary information as part of the RMP and encouraged EPA to use the summary information provided by submitted STAAs to gather helpful data and incorporate lessons learned (0519). An environmental advocacy coalition of approximately 140 commenters reasoned that collection of STAA data is necessary for EPA and other regulatory agencies to carry out their regulatory responsibilities. The coalition suggested that the collection of STAAs is vital for the establishment of a clearinghouse of safer technology and alternatives (discussed in more detail in Section 2.3.12) (0575). Furthermore, the coalition asserted that the proposed rule would be arbitrary and capricious if entities are not required at a minimum to submit summaries of their STAAs to EPA. A Federal agency suggests that facilities be required to submit the full STAA review as part of their RMP submission to the EPA, rather than only a summary and implemented IST (0428).

An environmental advocacy coalition of approximately 140 commenters suggested that by requiring the submission of STAAs to EPA, the Agency will enhance the quality of STAA assessments and feasibility analysis (0575). This commenter also believed STAA submission would better inform enforcement under the CAA's GDC providing the Agency with world class knowledge of feasible safer alternatives and effects taken under the EPA's 2017-2019 National Enforcement Initiative (NEI) approved on February 18, 2016.

Two local agencies said that either the STAA should be submitted to the Agency or the document should be retained by the operator and made available upon request (0450, 0453). A commenter said that information on IST should be maintained at the stationary source (0443).

Other commenters, including multiple industry trade associations, remarked that RMP regulated facilities should not be required to submit STAA information to EPA (0495, 0521, 0517, 0536). Industry trade associations argued that EPA or any other implementing agency will likely lack the required knowledge, resources, or expertise to evaluate an STAA or feasibility determination (0537, 0561, 0463, 0555). An industry trade association asserted that EPA should have no role in analyzing or approving the plans (0521). An industry association cited the 1990 CAA Amendments, stating that the requirement for approval of STAAs would be too similar to a permitting program and would thus be against Congress' intent (0536).

A union, an individual and an environmental advocacy coalition of approximately 140 commenters also suggested that EPA collect information from facilities that change program levels within RMP or deregister entirely in order to collect lessons learned for future use (0519, 0334, 0575). A commenter expressed concern that the current deregistration reason codes are not sufficient to allow EPA to collect

basic information about lessons learned from facilities that deregister from RMP (0334). This commenter along with an environmental advocacy coalition of approximately 140 commenters suggested adding a code representing "implemented IST/ISD" paired with a field to indicate the nature of the change (0334, 0575).

An advocacy group recommended allowing public comment and response on facilities' STAAs (0507). One commenter believes the STAA reports should be available to the public with only truly confidential information withheld and that community members, workers and union representatives should be included in the flow of information (0470). This commenter also believes that LEPCs should have access to IST reports beyond their jurisdiction to increase the knowledge base of how similar facilities are using or adopting IST around the country and provide an opportunity to share best practices (0470). This commenter also asserts it is even more important for LEPCs, local-emergency response agencies to review STAAs that do not implement IST to allow for public oversight to see how the facility management arrived at this decision and determine if all factors were taken into consideration (0470).

A few commenters wanted STAA summaries to be available to at-risk communities and the public both online and offline, including at public meetings required under § 68.210 (0575, 0576, 0333, 0360, 0334, 0507, 0603. Reasons given by commenters for providing public availability of STAA included:

- To hold companies accountable and facilitate significant process safety changes with appropriate public discussion and oversight from other stakeholders; (0575, 0333, 0360)
- To ensure right-to-know and transparency for affected workers and communities; (0507)
- To provide comments on the STAA and get implementing agency response; (0507)
- To have facilities that have adopted IST receive public credit for their positive steps (0470); and
- To ensure opportunities for at-risk communities to engage with facilities about alternatives and prevention plans. (0575)

EPA Response: EPA is not finalizing provisions to require automatic submission of STAA information or documentation to EPA or requiring that it be made available to the public. EPA acknowledges there is much public interest in having STAA and documentation available to them, but STAA will be part of a PHA which can be a lengthy (e.g., the sectors subject to STAA requirements have multiple processes and some PHAs are hundreds of pages) technically complex document that could contain not only CBI, but sensitive security information involving process or equipment vulnerabilities. Some commenters' suggested solution of having facilities sanitize submitted documents and provide upfront justification of CBI claims would entail a significant level of burden upon industry and EPA. It would not be practical or good use of resources to have thousands of documents submitted to EPA, to any other body or with the RMP submission. EPA can inspect documents on-site or request their submission from facilities as needed.

EPA believes that primary utility of STAA information for the public is whether or not facilities are implementing IST and the nature of that change. EPA is requiring that basic information on IST being implemented be provided in the RMP submission in accordance with § 68.175(e)(7). Facilities must provide in their RMP any IST/ISD measures implemented since the last PHA, if

any, and the technology category (substitution, minimization, simplification and/or moderation). In the event of a public meeting held after an accident, EPA encourages facilities to provide information about any IST or other safer technology alternatives that the facility is using or could be using and suggests that the public use this forum to inquire about ISTs implemented at the facility. LEPCs that are interested in obtaining information on safer technology or alternatives being used at a facility within their jurisdiction for purposes of developing response plans can request further information from a facility.

2.3.12. Clearinghouse

Comment: Some commenters, including an environmental advocacy coalition of approximately 140 commenters, a Federal agency, a facility, a state agency, advocacy groups, and a local agency, supported the establishment of a publicly available clearinghouse providing information about the feasibility and efficacy of safer substances and processes (0532, 0575, 0315, 0428, 0450, 0470, 0476, 0543, 0552, TRANS-12, 0586, TRANS-06, 0518, TRANS-17). A Federal agency commented that such a database would also be a useful resource for insurers, chemical process vendors, emergency responders, academic researchers, and other government agencies, such as OSHA (0428).

An environmental advocacy coalition of approximately 140 commenters remarked that such a clearinghouse should be dedicated to the topic of safer technology and alternatives and should be managed by either EPA, another Federal agency, or an independent third-party rather than industry-funded academics or institutions (0575). One commenter suggested that a clearinghouse could be developed by EPA or a third-party such as CCPS or Texas A&M's Mary Kay O'Connor Process Safety Center (0450).

A few industry trade associations remarked that the creation of a clearinghouse would be redundant with some resources already publicly available (0517, 0536). For example, one trade association asserted that it has effectively created its own clearinghouse through the publication and maintenance of its own publicly available publications, semi-annual conferences, and regular member exchange forums (0517). Additionally, this organization stated that it hosts a technology symposium every other year, where members can learn about new technologies, both from members sharing their experiences and directly from vendors and consultants (0517). Another trade association suggested that the searchable database of all patents and patent applications available from the US Patent and Trademark Office can be used as a clearing house for safer technology and that information on unpatented technologies is readily available through the internet and other means (0536).

Another industry trade association warned that a clearinghouse would not contribute to increased safety (0517). A commenter warned that any clearinghouse would be required to have many ground rules so as to clarify what factors were at play in the IST decision. The commenter expressed concern that the clearinghouse could be harmful or not useful if the information was selective in detail (0443). Another commenter cautioned that one type of technology, system or design that works for one facility or process may not work for another facility or process, due to differing processes and other conditions (0450).

EPA Response: EPA is not finalizing a provision to establish a clearinghouse in this rule. EPA will further consider the comments and suggestions on establishing a safer technologies and alternatives information clearinghouse should we pursue an effort to develop and establish such a

clearinghouse in the future. Currently, industry and other stakeholders can share chemical safety and security best practices, including those involving safer technologies and alternatives, at the EO 13650 best practices website.[77] EPA encourages stakeholders to review information shared through this forum and to submit best practices on safer alternatives or other best practices that serve to improve chemical safety and security.

2.3.13. Other comments on the safer technology and alternatives analysis requirements

Comment: A Federal agency and an industry trade association suggested that small firms under 250 employees should not be subject to the STAA provision mandating IST analysis until 3 years after the compliance date for larger firms in order to first evaluate the larger firms' experience (0502, 0555).

EPA Response: EPA disagrees. For STAA compliance, EPA is already allowing a longer compliance time of 4 years after the effective date. EPA believes that regardless of employee size, all that firms within the industries subject to the STAA requirements could benefit from this analysis and that the final rule appropriately limits the STAA requirements by type and complexity of the process.

Comment: A facility requested clarification that the application of IST principles would not be required on a retroactive basis (0461).

EPA Response: EPA is not requiring that facilities implement any safer technology alternatives, including IST, but only consider such technologies. However, facilities will be required to determine the practicability of any ISTs considered and document it.

Comment: A few commenters noted that while the STAA requirements apply only to certain industries, they are concerned that requirements could be expanded to other industries in the future (0521, TRANS-21).

EPA Response: Any future expansion of the application of STAA to additional industries would have to be developed through a rulemaking process by EPA and the affected industries would have an opportunity to provide input and comment on any proposed changes before they could be finalized and effective.

Comment: A commenter stated that the STAA requirement would be inherently legalistic and defensive because entities are concerned that EPA will invoke the "general duty clause" of the CAAA in the event of an accident (0598). The commenter notes that EPA states in its Guidance for Implementation of GDC, that "inherently safer technology can be used to lessen the hazards posed by an extremely hazardous substance" as part of this requirement and that "EPA Regional inspectors should determine if the actions described in the documentation previously provided are being effectively implemented at the facility."[78] The commenter believes that if a facility has analyzed IST and ISD but chosen not to implement a given approach, EPA could cite a facility for violations of GDC after an accident based on

[77] https://www.osha.gov/chemicalexecutiveorder/LLIS/index.html.
[78] Guidance for Implementation of the General Duty Clause [in] Clean Air Act Section 112(r)(1)," at 11-12 (May 2000) p. 15 and 19. https://www.epa.gov/enforcement/guidance-implementation-general-duty-clause-clean-air-act-caa-section-112r1-may-2000

its failure to implement any IST or ISD that would have reduced "the risk of release," in hindsight citing the previously quoted language for inspectors.

EPA Response: EPA does not delegate the GDC. Only EPA pursues GDC cases. Liability under the GDC would exist regardless of the rejection of an IST identified under the STAA provision if the owner or operator has failed to adopt an IST in an industry standard. While the GDC could potentially apply where the owner or operator had source-specific knowledge of a safer design, EPA would have to weigh multiple equities before seeking to hold an owner or operator liable for violation of the GDC.

EPA has provided guidance, cited by the commenter, on how sources can comply with the GDC. The language "inherently safer technology can be used to lessen the hazards posed by an extremely hazardous substance" in the GDC guidance is under a section pertaining to "Design a Safe Facility" of the facility and is used in the following context: *Equipment: The owners and operators should implement a quality control program to ensure that components and materials meet design specifications and to construct the process equipment as designed. The owners and operators should apply the same standard of care when modifying or repairing the facility. Safety equipment and inherently safer technology can be used to lessen the hazards posed by an extremely hazardous substance.* Thus, the statement is guidance that facilities can (not must) use IST to lessen hazards.

The GDC guidance (pg. 14) also states that: "EPA Regional inspectors should also assess whether owners and operators had an obligation to exceed these design consideration parameters if the parameters were not adequate to prevent releases or minimize their impacts." Thus, a violation of the GDC might involve a lack of a safeguard or having an inadequate safeguard to prevent releases, not because a facility had not implemented a particular IST or ISD. However, in that situation, a facility may want to consider if a different safeguard, including IST or ISD, may better address the hazard.

The statement: *EPA Regional inspectors should determine if the actions described in the documentation previously provided are being effectively implemented at the facility*, is used in conjunction with actions identified in the preceding three steps in the guidance: *Did the owner or operator identify all chemical and process hazards associated with extremely hazardous substances?, Did the owner or operator design and maintain a safe facility taking necessary steps to prevent releases?* and *Did the owner or operator take necessary steps to minimize the effects of releases?* Again, the focus is on what steps or measures were taken by the facility to prevent and minimize releases.

The STAA review is intended to help the owner or operator to identify multiple ways he or she can reduce the risk at a stationary source in a practicable manner. EPA will defer to private counsel on how to advise their clients regarding potential legal exposure.

Comment: An industry trade association expressed concern that EPA will use the analyses to mandate IST adoption outside of rulemaking, such as through consent decrees (0536).

EPA Response: Consent decrees are one of several possible results of regulatory enforcement actions. In terms of regulatory enforcement, the STAA would be similar to any other document required to be produced under the rule – whether or not a particular document becomes significant in a regulatory enforcement case and what type of enforcement action could result from that document will depend on the specific facts and circumstances of a particular case, which EPA cannot predict in advance. EPA notes that consent decrees, in particular, are negotiated settlement agreements, so even if a STAA were to become significant in an enforcement case, whether or not the STAA leads to IST adoption would be at least partially under the control of the owner or operator.

Comment: Some commenters stated that adding an IST consideration requirement with a feasibility analysis would also raise severe liability issues for facilities may feel obligated to make infeasible changes in case of an accident. The commenters reasoned that if this analysis is in the PHA, feasibility is unique to every situation and the facility would need to describe why it chose not to implement a particular IST. The commenters asserted that in any court case arising from an incident, plaintiffs could easily accuse the facility owner/operator of failing to implement ISTs they as the plaintiffs perceive to be feasible but the facility owner/operator determined were not feasible. To protect against this liability exposure, some facility owners may feel compelled to implement considered ISTs, which raises other concerns. For example, facilities pressured to reduce chemical inventories to protect themselves from liability exposure would be prevented from addressing their customers' needs. The commenters stated that it could also lead to increased transportation activities, which would increase the likelihood of loading, unloading, or in-transit incidents. The commenters believe that EPA's proposed feasibility definition fails to include consideration of costs and benefits and by failing to take the entire supply chain into account. For example, downstream users may not even be able to receive an alternative product (0561, 0527, 0595, 0555).

According to a facility, STAA should be evaluated but should not be the only standard or practice used as part of a broader safety management analysis. The facility remarked that the regulated entity should be able to evaluate the root cause of an accident using the best information available whether or not STAA is involved (0531).

EPA Response: The rule does not require any implementation of IST, only that the facility consider IST options and their feasibility (now changed to practicability). This can take into account addressing customer needs as part of maintaining the viability of the business. It can also take into account any increased risks that implementation of the IST alternative could cause (e.g., at the facility, upstream in the supply chain or downstream at customers) that the facility can demonstrate. EPA believes that the facility is in the best position to decide how hazards should be addressed and risks managed for the specific processes and chemicals used at their facilities. If an incident occurs, the responsibility lies with the facility to investigate the incident and use the result of the incident investigation to make the appropriate changes to ensure that the incident does not reoccur. If an incident resulted from lack of or inadequate safeguards, the owner or operator would need to address this in their response to the findings of the incident investigation. Whether or not that response involves IST would depend on the specific circumstances of the incident, the source, the regulated process, and other relevant factors.

Regarding how an owner or operator may "feel" about potentially increased liability resulting from consideration of ISTs, EPA disagrees that this is a valid argument for not conducting an STAA. The rule will not require the implementation of any IST or other safer technology. The STAA requirement itself will result in owners and operators identifying a range of ways to reduce the risk of and from accidental releases. It is reasonable to expect that owners and operators, when in possession of such information, may implement some reasonable, practicable measures and reduce the risk associated with the source. It is a weaker inference that the rule is responsible for owners and operators taking impracticable actions not required by the rule to defend against private liability based on unreasonable interpretations of that voluntarily-developed information. EPA will defer to private counsel on how to advise their clients regarding potential legal exposure to matters beyond the rule.

2.4. Stationary source location and emergency shutdown

2.4.1. Stationary source location

Comment: Private citizens commented that EPA should use stricter standards for calculating blast radius areas for new and existing facilities to ensure that communities, schools, and hospitals are outside of the blast impact (0352, 0370). An anonymous commenter stated that EPA should use information availability requirements to better inform and protect local communities from accidents (0403). A Federal agency and a facility requested that EPA consider the Stationary Source Location issue in future rulemakings (0428, 0552). A professional organization requested that EPA consider a 2014 Fire Protection Research Foundation report in future requirements for stationary source location (0533).

Several anonymous commenters argued that facilities should be located where no damage could occur to people and homes, asserting that the proposed rule does not go far enough to ensure public safety (0448, 0449, 0451, 0454, 0455, 0456). Some of these commenters specifically mentioned the Rancho Liquefied Petroleum Gas (LPG) facility in San Pedro, California, and asked that EPA review the siting of this facility due to the danger it poses to the surrounding community.

A local agency and an advocacy group asked that EPA consider IST or risk reduction methodologies and the importance of buffer zones in siting of new stationary sources (0450, 0587).

Multiple commenters, including a state agency, a local agency, a facility, and an association of government agencies requested new guidance and tools for localities to clarify additional requirements for stationary source location (0450, 0510, 0530, 0552). One commenter stated that EPA should consider reverse 911 calls to public receptors in setting requirements (0552).

A facility and numerous industry trade associations supported the exclusion of stationary source location issues from the proposed rule, citing OSHA's PSM regulations and the lack of authority in the CAA (0492, 0598, 0528, 0536, 0555, 0579, 0587). An industry trade association stated that EPA should not propose any additional requirements on the location of stationary sources (0458, 0528, 0555, 0569). Multiple facilities and industry trade associations commented that states and localities, not EPA, should regulate the siting of facilities (0492, 0502, 0536, 0551, 0579, 0569).

EPA Response: EPA will consider these comments when determining whether to develop guidance or propose stationary source location requirements in a future action.

2.4.2. Emergency shutdown

Comment: Local agencies stated that EPA should issue regulations or guidance requiring that all processes be built such that they can be placed in a safe state during an emergency (0450, 0453). Another local agency recommended that EPA publish guidance on emergency shutdown systems to assist regulated entities in evaluating various alternatives, but argued that including emergency shutdown systems in a future rulemaking would be infeasible for existing locations (0530). A facility expressed support for emergency shutdown systems requirements in a future rulemaking, to include operating procedures and annual testing (0552).

Several industry trade associations and a facility argued that EPA should not propose any additional requirements – regulations or guidance – on emergency shutdown systems. These commenters asserted that existing regulation and facility practices address emergency shutdown issues (0458, 0492, 0598, 0528, 0536, 0557, 0579, 0569, 0587). A facility supported EPA's decision to forgo an emergency shutdown system requirement, arguing that exclusion is consistent with RMP's performance-based nature, but opposed EPA's suggestion to issue a guidance document (0492, 0579). An industry trade association opposed a "one-size-fits-all" rule or guidance for emergency shutdown systems and argued that EPA should propose specific regulatory text in a future rulemaking should it decide to regulate emergency shutdown (0598).

EPA Response: EPA will consider these comments when determining whether to develop guidance or propose emergency shutdown system requirements in a future action.

3. Emergency Response Preparedness Requirements

3.1. Emergency response program coordination with local responders

3.1.1. Designation of "responding" and "non-responding" stationary sources

3.1.1.1. Support for designation of "responding" and "non-responding" stationary sources

Comment: A facility supported EPA's proposal to designate facilities as either "responding" or "non-responding", but suggested that EPA add definitions for "responding facility" and "non-responding facility" to § 68.3 in addition to the functional definitions in § 68.90 for clarity (0589).

> **EPA Response:** In the final rule, EPA is including the paragraph headings "Responding stationary source" and "Non-responding stationary source", but is modifying the functional descriptions of these terms to account for changes between the proposed and final rules. In the final rule, EPA is reverting to the existing rule language for §§ 68.90 (a) and (b), and adding the headings "Responding stationary source" and "Non-responding stationary source" to §§ 68.90 (a) and (b), respectively. The final rule will also add new subparagraphs § 68.90 (b)(4) and (5) to indicate that owners and operators of non-responding stationary sources must meet the final rule's coordination and notification exercise requirements. EPA is taking this approach to designating responding and non-responding stationary sources because the Agency is choosing not to finalize the proposed language that would have required sources to assess local public response capabilities and given local responders the authority to require a source to comply with the rule's emergency response program requirements. EPA is not adding definitions for "responding

stationary source" and "non-responding stationary source" to § 68.3 because the Agency believes that the functional descriptions in § 68.90 (a) and (b) now adequately convey the meaning of these terms.

3.1.1.2. Objections to designation of "responding" and "non-responding" stationary sources

Comment: Several commenters, including private citizens, a government agency, an advocacy group, and an association of government agencies, objected to EPA designating all facilities as either "responding" or "non-responding". Some of these commenters emphasized that regardless of whether a facility is responding or non-responding, the overall responsibility for ensuring emergency response preparedness rests with the facility (0427, 0510, 0443, 0527, 0467, 0408). Several commenters, including industry trade associations and facilities, emphasized the importance of a coordinated response because response organizations possess expertise and availability to respond (e.g., in off-site consequences) that the facility may not possess (0565, 0581, 0570, 0584, 0573, 0594, 0598, 0538). An industry trade association stated that EPA should remove the distinction between responding and non-responding facilities because all facilities have a partnership with LEPCs or local responders (0594). An association of government agencies stated that all facilities are responsible for and must be prepared to deal with the regulated substances they bring to the community and there should be no such thing as a "non-responding" stationary source, but that this does not mean that every facility needs a technician-level hazmat response team. This commenter stated that every facility must be able to immediately notify emergency response agencies when a release having the potential to impact the public occurs, take actions to protect the lives of employees and the public, minimize or contain the release, and coordinate with local response agencies who respond to the release (0510). A facility commented that the proposed definitions of responding and non-responding facility are confusing, and that the term "own resources" as it relates to the definitions of responding and non-responding facility is not defined and subject to interpretation (0531).

EPA Response: EPA agrees that there is a wide spectrum of planning, preparedness, and response arrangements available to facilities and local communities, and that the two categories of "responding" and "non-responding" facilities do not fully capture this continuum. EPA also acknowledges that there is some overlap between the obligations of non-responding and responding facilities. For example, both non-responding and responding facilities must have mechanisms or procedures in place to notify emergency responders about accidental releases, and both types of sources must coordinate emergency response activities with local responders (and under the final rule, these coordination activities must occur annually and be documented). Because the outcome of coordination activities may result in different types of response arrangements involving regulated facilities and communities, EPA understands that a facility's designation as "responding" or "non-responding" does not, by itself, explain all facets of emergency preparedness and response for the facility.

These designations are still useful, however, because "responding" facilities must meet certain requirements that "non-responding" facilities are not required to meet. Responding facilities must comply with all of the provisions of § 68.95, which include developing an emergency response plan, developing procedures for the use, inspection, and testing of emergency response equipment, conducting training for employees in relevant procedures, and updating the emergency response plan to reflect changes at the source. Any facility that plans to use its

employees to take offensive response actions as a result of an accidental release at the source – which could include, for example, donning emergency air breathing apparatus in order to enter an area where a toxic gas leak has occurred with the intention of stopping or controlling the release – would be expected to have obtained appropriate equipment and training, and to address these activities in its emergency response program, even if the facility is also relying on local responders to supplement its own response, or to manage off-site response actions such as evacuations and sheltering-in-place. Therefore, in the final rule, EPA is retaining the proposed terms "Responding stationary source" as a heading for § 68.90(a) and "Non-responding stationary source" as a heading for § 68.90(b), as an indication of whether or not a facility is required to comply with the emergency response program provisions of § 68.95. EPA is not adding definitions for "responding stationary source" and "non-responding stationary source" to § 68.3 because the Agency believes that the functional descriptions in § 68.90 (a) and (b) now adequately convey the meaning of these terms. EPA did not use the phrase "own resources" in the proposed or final rules, and the final rule does not require responding facilities to rely only on their own resources to respond to accidental releases. EPA notes that both responding and non-responding facilities are required to coordinate annually with local responders. One reason for such coordination is to allow both owners and operators and local responders to share information about response plans and resources. This is important because even in situations where regulated sources maintain full emergency response capabilities, local responders would still be responsible for managing the aspects of the response external to the source, such as community evacuations and sheltering-in-place, and responding facilities may also need or request local response resources to assist with on-site aspects of the response.

3.1.2. Applicability of emergency response coordination and emergency response program requirements

3.1.2.1. Proposed applicability provisions

Comment:

Support for proposed applicability provisions

A state agency supported EPA's proposal to clarify the applicability of emergency response coordination and emergency response program requirements for non-responding facilities (0473). An industry trade association stated that the proposal is sensible and would promote efficiency by preventing facilities from having to provide resources that are already available within their local communities (0529). A Federal Agency commented that EPA's revisions to the definition of non-responding stationary source under § 68.90(a) are sufficiently clear and will help to address the concerns that owner/operators may claim to be "non-responding" or fail to properly coordinate with local emergency response authorities; the commenter asserted that EPA's proposed alternative of designating all Program 2 and Program 3 authorities as non-responding is therefore unnecessary (0428).

Opposition to proposed applicability provisions

A few commenters, including an industry trade association and another commenter, stated that new requirements that would cause some non-responding facilities to become responding facilities do not support the goal of increased safety and risk management (0458, 0562). A commenter suggested removing § 68.90(b) altogether (0583). An industry trade association expressed concern that coordination

requirements may result in additional businesses having to become responders (0521). Another trade association recommended that EPA retain the existing emergency response program applicability provisions (0565). A Federal Agency suggested that EPA consider issuing specific guidance on emergency response obligations or updating its 2004 guidance instead of creating new duplicative and unnecessarily burdensome requirements, in particular guidance on expectations for coordination between facilities and local responders and facility obligations under existing requirements for an emergency response program (0502). Many commenters, including a Federal Agency and industry trade associations, suggested that EPA increase enforcement efforts rather than impose additional requirements in certain areas (e.g., LEPC ability to request that a facility become a responding facility) (0502, 0598, 0528, 0555, 0594). Some commenters, including industry trade associations and a facility, urged that EPA not finalize requirements that would subject facilities to enforcement actions should adequate emergency response not be provided because an LEPC failed to perform or requested that a facility become a responding facility (0598, 0556, 0512). An industry trade association objected to the proposed requirement that all facilities be deemed responding unless local authorities add them to the community emergency response plan (for toxics) or affirmatively declare that they will respond to releases (for flammables), indicating that the requirement is not supported by arguments made in the preamble (0555). An industry trade association agreed with the goals of annual coordination between facilities and emergency responders but asserted that incidents of failure in coordination and communication could be more efficiently remedied by direct outreach from EPA to facilities (0500).

A few commenters, including an industry trade association and a facility, commented that the applicability of RMP emergency response provisions is creating an impractical and arbitrary distinction and that placing emergency response responsibilities solely with the facility is inaccurate and does not account for emergency response situations not regulated under RMP (e.g., ethanol storage tank fires) (0579, 0492).

> **EPA Response:** In the final rule, EPA is removing the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities. The emergency coordination provisions of the final rule will require regulated sources to coordinate annually with local responders and to document coordination activities, but will not subject facilities to enforcement actions based on potential inaction by local response authorities. While EPA may issue additional emergency response program guidance, the Agency also believes enhancing the existing rule's emergency response provisions was necessary. As EPA explained in the preamble to the proposed rule, EPA has often found that facilities either are not included in the community emergency plan or have not properly coordinated response actions with local authorities, and EPA believes the final rule will help to address these problems. Regarding the objection to the rule requiring a regulated source to develop an emergency response program unless it is included in the community emergency response plan (for toxic substances), or has coordinated actions with the local fire department (for flammables), these provisions were contained in the original rule, and will be unchanged in the final rule (the proposed rule would have moved them to § 68.93 – Emergency response coordination activities – but EPA is not finalizing this change). EPA disagrees that the goals of annual coordination between local responders and regulated sources can be remedied by

direct outreach from EPA to facilities. The Agency believes that individual facilities and local response organizations are in the best position to evaluate facility and community response needs and develop appropriate response plans. EPA also disagrees that the final rule's emergency response provisions are impractical, arbitrary, or create a conflict with emergency response situations not regulated under the RMP regulation. By requiring owners and operators to coordinate emergency response needs with local responders, EPA has allowed facilities and local responders to work together to develop response plans and procedures that are most practical for their situation. While the final rule can only apply to substances listed in part 68 and their associated processes, there is no reason that emergency response plans developed under the final rule cannot also be adapted to address other hazardous substances located at the source, and EPA notes that § 68.95 (b) of the existing rule already encourages owners and operators to use an approach that is consistent with the National Response Team's Integrated Contingency Plan Guidance (i.e., the "One Plan" guidance).

3.1.2.2. Proposed alternative options

Comment:

Support for proposed alternative options

Several commenters, including advocacy groups and a facility, supported EPA's proposed alternative to require all Program 2 and 3 facilities to become responding facilities (0467, 0510, 0542, 0543). An advocacy group stated that this alternative will ensure that no sites slip through the cracks (0543). Another advocacy group stated that exceptions should only be granted from the proposed alternative if a facility has valid reasons why it cannot do so and emergency planning responsibility is formally accepted in writing by local responders. This commenter also stated that EPA should develop updated guidance that specifies additional requirements for covered facilities, exemptions, and all emergency response programs to support the shift of primary responsibility to facilities (0467). An association of government agencies provided a list of suggested emergency response capabilities that facilities should be able to meet (0510).

Opposition to alternative options

Some commenters, including an industry trade association, opposed EPA's alternative option that would have required all sources to become responding sources due to cost considerations, including:

- Cost impacts to facilities that are unmanned, remotely operated, and have implemented engineering safety systems (0528).
- Cost impacts to facilities whose procedures dictate activation of an emergency shutdown system, isolation of the stationary source, evacuation of the stationary source, and allowing any fire to burn itself out (0528).
- EPA's estimates that requiring all Program 2 or 3 facilities to become responding facilities would cost approximately $35.6 million. This commenter also suggested that if EPA does require all Program 2 and 3 facilities to become responding facilities, EPA should recognize response activities already occurring at facilities as fulfilling annual coordination requirements (0562).

EPA Response: The final rule will not adopt the alternative option that would require all Program 2 and 3 facilities to become responding facilities because the Agency believes that regulated sources

and local response organizations should work together to implement emergency response plans that are best for the facility and its surrounding community. In many cases, EPA believes that local responders are better positioned than regulated facilities to respond to accidental releases at the facility. EPA also believes this option would have been costly, particularly for small businesses. Instead, the final rule will enhance the existing rule's emergency response coordination requirements by requiring emergency response coordination activities to occur annually and be documented.

3.1.2.3. Suggestions for revisions to applicability provisions

Comment: Several commenters, including a facility, other professionals, a private citizen, and industry trade associations, proposed additions or revisions to the applicability paragraphs under § 68.90, including assertions that:

- Small entities should be exempt from the emergency response preparedness requirements, citing reasons such as burden, local responder unavailability, inability of small entities to provide response without support, and overlapping requirements (0423, 0502, 0555, 0561)
- A paragraph should be added discussing the applicability of necessary sections of Subpart E to private as well as public emergency response resources, or assign the facility the responsibility for their role in emergencies (0459)
- Stationary sources that meet NAICS code 211 should be exempt because these sources typically do not possess the RMP listed toxic substances or the substances associated with those incidents described in the Background of the proposed rule (0528)
- Stationary sources should be exempt from becoming responding facilities if they are included in the community emergency response plan developed under 42 U.S.C. 1103 (0486)
- Stationary sources with only regulated flammable substances should be exempt from becoming responding facilities if the owner/operator has coordinated response actions with the local fire department (0486)

EPA Response: EPA disagrees that small entities should be exempt from the rule's emergency response program requirements. However, the Agency is not finalizing the proposed rule's emergency response coordination provisions that would have had the greatest impact on small businesses. Specifically, EPA is removing the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities. EPA believes that by making these changes, the regulatory provisions that would potentially have caused many sources to convert from being non-responding sources to responding sources are being removed from the final rule.

Private emergency response resources that are retained by the owner or operator to respond to accidental releases at the source would not be considered local public emergency planning or response organizations, but should be integrated into the source's emergency response program as appropriate.

EPA disagrees that sources in NAICS 211 (Oil and Gas Extraction) should be exempt from the rule's emergency response provisions. While these sources may not contain RMP listed toxic substances, they often do contain RMP listed flammable substances. RMP listed flammable

substances have been implicated in numerous serious accidental releases involving large emergency response efforts. Therefore, Program 2 or 3 processes containing these substances must meet the applicable provisions of Subpart E of the rule.

Regarding the final two suggestions (i.e., to exempt sources that are included in the community emergency response plan and to exempt sources with only regulated flammable substances if the source has coordinated response actions with the local fire department), these "non-responding stationary source" provisions were already incorporated into the existing rule. The final rule will retain the emergency response program applicability criteria of the existing rule, and include two additional criteria. Under the existing rule, regulated sources are not required to comply with § 68.95 provided that:

(1) For stationary sources with any regulated toxic substance held in a process above the threshold quantity, the stationary source is included in the community emergency response plan developed under 42 U.S.C. 11003;

(2) For stationary sources with only regulated flammable substances held in a process above the threshold quantity, the owner or operator has coordinated response actions with the local fire department; and

(3) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response.

The final rule adds two new provisions to these criteria:

(4) The owner or operator performs the annual emergency response coordination activities required under § 68.93; and

(5) The owner or operator performs the annual notification exercises required under § 68.96(a).

Therefore, the commenter's suggestions were already incorporated into the existing rule, and will be in the final rule.

Comment: A state agency stated that if EPA pursues the requirement to allow an LEPC to request that a facility become a responding facility, in the final rulemaking, 40 CFR Part 68 should cite OSHA 29 CFR 1910.120 or EPA 40 CFR 311 for facility responders (0417).

EPA Response: In the final rule, EPA is removing the provisions from § 68.90 of the proposed rule that would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities.

Comment: A state agency suggested that § 68.90(a) be revised to state that the owner or operator of a non-responding stationary source need not "respond offensively to mitigate an accidental release," rather than need not "comply with § 68.95 of this part," stating that all facilities should still have an emergency response plan and program (0406).

EPA Response: EPA disagrees that all facilities should necessarily implement an emergency response program. The Agency believes that regulated sources and local response organizations

should work together to implement emergency response plans that are best for the facility and its surrounding community. EPA believes that in many cases local responders are better positioned than regulated facilities to respond to accidental releases at the facility. EPA also believes requiring all sources to develop emergency response programs would have been costly, particularly for small businesses. Instead, the final rule will enhance the existing rule's emergency response coordination requirements by requiring emergency response coordination activities to occur annually and be documented.

3.1.2.4. Burdens on industry

Comment: Many commenters, including facilities, a Federal Agency, and an industry trade association, stated that the costs to become a responding facility would be a burden (0560, 0489, 0554, 0561, 0504). Several commenters, including a facility, stated that EPA's estimates for the costs to become a responding facility are underestimated (0560). Several commenters, including other professionals, a facility, a Federal Agency, and industry trade associations, addressed impacts to small business specifically (0423, 0466, 0502, 0555, 0587, 0521, 0538). A state agency stated that, if required to become a responding facility, facilities with resource challenges may be unable to achieve compliance with OSHA 29 CFR 1910.120 or EPA 40 CFR 311 (0417).

EPA Response: In the final rule, EPA is removing the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities. EPA believes that by making these changes, the regulatory provisions that would potentially have caused many sources to convert from being non-responding sources to responding sources are being removed from the final rule. The emergency coordination provisions of the final rule will require regulated sources to coordinate annually with local responders and to document coordination activities. EPA acknowledges that it is possible that the more frequent coordination activities that will be required under the final rule may still prompt some sources to implement an emergency response program (i.e., for a non-responding source to become a responding source). However, the Agency also believes it is possible that in some cases, coordination activities could lead sources and local responders to conclude that local responders are better positioned to provide for emergency responses to accidental releases at a source with an existing emergency response program (i.e., for a responding source to become a non-responding source). Therefore, in the Agency's judgement, the emergency coordination provisions in the final rule will not result in a large change in the current proportion of responding and non-responding facilities.

3.1.3. Evaluating resources and capabilities of local responders

Comment: Many commenters, including industry trade associations, a state agency, an association of government agencies, a facility, and other commenters, expressed concern over ambiguity in the definitions of "adequate" response capabilities or "appropriate" response as it relates to the definitions of responding facility and non-responding facility under § 68.90(a)(1) and (b)(1) (0476, 0510, 0531, 0536, 0583, 0446). A few commenters, including an association of government agencies and a facility, recommended that EPA remove this language (0510, 0486). A few commenters, including a state agency

and another commenter, suggested that EPA provide additional guidance or criteria (0476, 0446). A facility commented that it may be challenging for facilities to evaluate the capabilities of local responders and that only the responders themselves have the expertise to determine their capabilities (0531). Another commenter pointed out that there is no accepted standard for community emergency response capability that is applicable nationwide, and that response resources and capabilities can only be evaluated in the context of the overall community's response plan (0510).

> **EPA Response:** EPA is not adopting this provision in the final rule. While EPA believes it is important for regulated facilities and local responders to share information on response resources and capabilities, the Agency acknowledges that the capabilities and resources of local response organizations are subject to numerous influences, including other potential demands within the community for local response resources, local government organization and budgets, federal, state, and local regulations, and others. Few if any of these factors are within the purview of the owners and operators of individual regulated facilities, and therefore in many cases, owners and operators will not be in a position to judge the adequacy of local response capabilities and resources.

3.1.4. Objections to proposal to allow local emergency planning committee to require facility to develop emergency response program

Comment: Numerous commenters, including industry trade associations, a State Agency, facilities, and a Federal Agency, objected to EPA's proposal to allow an LEPC to request that a facility become a responding facility, expressing concerns that it would allow and/or incentivize LEPCs to shift their emergency response responsibilities to regulated facilities, even if this may not be in the best interest of the overall emergency response (0466, 0473, 0476, 0486, 0496, 0598, 0502, 0529, 0554, 0555, 0557, 0560, 0565, 0579, 0581). Several of these commenters recommended that EPA eliminate this provision, citing reasons such as: lack of legal authority, increased burden to facilities, lack of criteria for LEPC requests, potential for inconsistency in LEPC application of requests, and unintended incentives for LEPCs (0486, 0502, 0529, 0554, 0560, 0579, 0598, 0557). Several commenters, including an industry trade association and a facility, stated that allowing local authorities to "opt out" of their responsibilities would undermine the mission of those authorities (0598, 0569). Several commenters, including industry trade associations, stated that relying on facilities to fulfill emergency response obligations if an LEPC "opts out" may not be within these facilities' authority or capability (0598, 0594).

Several commenters, including a state agency, industry trade associations, and a facility, expressed concern that EPA's proposal did not include criteria that LEPCs must meet before requesting that a facility become a responding facility (0476, 0473, 0486, 0496, 0560, 0565, 0579, 0587, 0544, 0554). Several commenters provided suggestions for requirements that LEPCs must meet before submitting such a request, including:

- a meeting between LEPCs and facilities (0476)
- coordination activities and an assessment and written report demonstrating that the LEPC cannot adequately respond (0473)
- LEPC advises the owner/operator in writing that it does not have the equipment, manpower or necessary knowledge and skills to provide emergency response services, or the operator otherwise learns that the LEPC does not have that capability (0581)

- a template or form letter created by EPA from the LEPC to the facility that can be used to memorialize understanding (0589)
- parameters as to what LEPCs can request a facility to provide in its emergency response plan (0544)

Several commenters, including industry trade associations, a professional organization, and facilities, expressed concerns that the proposed requirement to allow an LEPC to request that a facility become a responding facility would delegate authority that is either inappropriate or not statutorily-mandated to LEPCs (0486, 0529, 0565, 0579, 0570, 0573, 0587, 0595, 0360, 0489). A state agency suggested such authority may exceed the capabilities of many LEPCs, which are volunteer organizations, and suggested that LEPCs should be able to delegate the authority to a county emergency manager, or the authority should be vested with a county emergency manager (0417). A local agency suggested that EPA allow involvement by alternates (i.e., local Police Departments, Fire Departments, Hazardous Materials Responders, Ambulance Corps, and other appropriate local response agencies) in the event that LEPCs are not active (0530). Several commenters, including an industry trade association and facilities, commented that in areas where there are no active LEPCs, facilities should be allowed to seek alternate means for response, including contractors and mutual aid agreements (0595, 0527, 0589). A facility requested that EPA clarify whether use of third-party contractors is authorized as a means of satisfying responder obligations or whether contractors can also be retained to supplement otherwise inadequate local emergency response capabilities and thus retain a facility's classification as a non-responding facility (0589).

Many commenters addressed potential impacts of the proposed requirement, including:

- Several commenters, including a facility and an industry trade association, commented that EPA's proposal appears to incentivize the development of emergency response plans on a facility-by-facility basis and expressed concerns over the impact this may have on a community's emergency response capabilities (0486, 0494).
- Several industry trade associations expressed concerns that the proposed requirement to allow an LEPC to request that a facility become a responding facility would negatively impact overall emergency response (0495, 0565, 0579).
- An association of government agencies stated that the vast majority of LEPCs will request that facilities become responding facilities because they are better equipped to handle emergency response (0510).
- A few commenters, including an industry trade association and a facility, expressed that the proposed requirement to allow an LEPC to request that a facility become a responding facility could result in duplication of effort if an LEPC requests that a facility become a responding facility when local response capabilities are adequate and in place or when non-responding facilities already perform some of these activities (0529, 0560, 0562).
- A facility suggested that supplementing local response capabilities with additional training or equipment or the development or expansion of mutual aid capabilities may be more cost-effective than duplication of response efforts (0560).

A facility expressed concern that the proposed requirement to allow an LEPC to request that a facility become a responding facility would inappropriately shift the responsibility for emergency response from the facility to the LEPC (0486). An association of government agencies commented that the requirements

under § 68.93 to coordinate with LEPCs are unrealistic because, according to their data and surveys, most communities do not prepare an emergency plan pursuant to EPCRA (0510).

Several commenters, including industry trade associations and a facility, commented that EPA's proposal contradicts the intent of or provides duplication to EPCRA, in areas such as coordination and exercises (0486, 0466, 0565, 0594, 0594). An industry trade association commented that this proposal contradicts EPA's 1996 final rule, which required facilities to assess whether they could provide adequate emergency response and then to reach out to local responders if not (0466).

> **EPA Response:** EPA disagrees that the proposed provision would have absolved local responders of their responsibilities under EPCRA or allowed them to disregard their other response obligations. The proposed provisions would have had no effect on local authorities' community emergency planning responsibilities under EPCRA. Also, even in situations where regulated sources maintain full emergency response capabilities, local responders would still be responsible for managing the aspects of the response external to the source, such as community evacuations and sheltering-in-place. Nevertheless, EPA is not finalizing this provision because of the objections raised by commenters, and because it would have allowed local governments to place emergency response program obligations on the owners or operators of regulated facilities without requisite knowledge of the facility's operations, business practices, financial condition, and other relevant factors. Also, commenters pointed out that many facilities – particularly small businesses – would as a practical matter simply be unable to manage all of their own response needs, which could include maintaining a full hazardous materials response team, as well as firefighting capabilities. In the preamble to the original rule, EPA acknowledged that small businesses would often be unable to manage these duties.

3.1.5. Emergency response coordination activities

3.1.5.1. Support for proposed coordination activities, recommendations and requests for additional guidance

Comment: Many commenters, including industry trade associations, advocacy groups, a union, facilities, and a state agency, supported EPA's efforts to increase emergency response program coordination between facilities and local responders (0598, 0581, 0589, 0333, 0435, 0452, 0467, 0544, 0556, 0519). An advocacy group commented that EPA should provide additional guidance to improve coordination between these groups (0467). A facility commented that EPA should strengthen the requirements for LEPCs to coordinate with owner/operators in developing emergency response plans (0486). A few commenters, including advocacy groups, stated that EPA should take a leadership role in ensuring that facilities understand their responsibilities, and ensure that LEPCs become and remain effective and collaborate with community groups in making information and resources available to them for emergency preparedness (0333, TRANS-09). An advocacy group stated that EPA should ensure that facilities play a greater role in emergency response (0333). An advocacy group commented that EPA should require robust coordination between LEPCs, community first responders, and on-site covered facility response personnel including training and incident pre-planning (0507).

Many commenters, including a state agency, advocacy groups, an industry trade association, and a union, supported increased or supplemental training, education, or outreach with facilities, local responders, or

the community (0473, 0467, 0571, 0519, 0467, 0408). A union stated that all emergency response planning and drills must include worker participation and training (0519). A facility suggested that EPA should improve emergency response coordination through providing further guidance and protocols for LEPCs to develop and measure effectiveness of community emergency response programs and plans (0486). A Federal agency suggested that EPA increase efforts to work with LEPCs and local responding agencies on implementation of existing emergency planning requirements (0502).

EPA Response: In the final rule, EPA is adopting the proposed emergency response coordination provisions of § 68.93, with some changes made in order to address the significant number of public comments on this issue. One significant change relates to the modified applicability provisions for responding stationary sources. In addition to removing the two provisions from § 68.90 of the final rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities, EPA is also removing the proposed language in § 68.93 that placed the focus of coordination on ensuring that response resources and capabilities are in place. This language is being replaced with language that places the focus of coordination on sharing information related to emergency planning.

EPA is also clarifying what coordination activities are required. In the final rule, under § 68.93 the owner or operator will be required to provide local authorities with information about the regulated substances at the source, their quantities, the risks presented by covered processes, and the resources and capabilities at the facility to respond to an accidental release of a regulated substance. Section 68.93 (a) will require coordination to occur at least annually, and under § 68.93 (b), the owner or operator will also be required to provide the facility's emergency response plan if one exists, the emergency action plan required under 29 CFR 1910.38, updated emergency contact information, and any other information that local emergency planning and response organizations identify as relevant to local emergency planning. EPA notes that under 29 CFR 1910.38(b), OSHA requires emergency action plans to be kept in writing, unless an employer has 10 or fewer employees, in which case they may communicate the plan orally to employees. Under the final rule, if the owner or operator has a written emergency action plan, that written plan should be provided to local authorities, but if the plan is an oral plan, the owner or operator may also communicate the plan orally to local authorities.

In requiring "any other information that local emergency planning and response organizations identify as relevant to local emergency planning," EPA is encouraging local emergency officials to consider what other facility information may aid them in preparing for emergencies at the source beyond those specific elements identified in § 68.93 and § 68.93(b), and request such information from the owner or operator when conducting annual coordination activities. Such information could include accident histories, portions of incident investigation reports relevant to emergency response, incident after-action reports, records of notification exercises, field and tabletop exercise evaluation reports, etc. The owner or operator will be required to provide any information requested by local emergency planning and response organizations, to the extent that the information is relevant to local emergency planning.

EPA appreciates the commenters' suggestions for additional guidance and support to local responders. The Agency engages in a variety of efforts to assist both regulated sources and local responders to understand and comply with part 68 regulatory requirements, including the rule's emergency response provisions. EPA intends to continue this work.

3.1.5.2. Opposition to or concerns with proposed emergency response coordination requirements

Comment: A few industry trade associations requested that EPA provide additional clarification on what constitutes "coordination" (0598, 0458). An industry trade association suggested that coordination should include telephone or email and should not infer a face-to-face meeting as the only means of coordination. The commenter also stated that expanding current RMP requirements with additional, specific requirements on what constitutes coordination and how disputes between local authorities and facilities regarding emergency response should be resolved would diminish the flexibility of a performance-based standard and deter the ability or organizations to revise their processes as safety cultures change (0528). An industry trade association stated that they have concerns with some of the proposed rule text regarding annual coordination with local authorities (0476).

Several commenters, including industry trade associations and a facility, cited potential duplication in requirements between EPA's proposal and other Federal or state requirements or voluntary efforts (0598, 0528, 0529, 0598, 0571, 0537). Examples of potential duplication provided include:

- The fertilizer industry being subject to EPA's proposal, EPCRA, and RMP and OSHA Hazardous Waste Operations and Emergency Response requirements (0598, 0482)
- Reference to EPA's determination prior to the final rule that emergency response program requirements are included in CAA 112(r)(7) and that the proposed requirements are already addressed in other Federal regulations (0528)
- Facilities subject to Pipeline and Hazardous Materials Safety Administration (PHSMA) requirements and/or state agencies exercising authority delegated by PHMSA (0529)
- OSHA requirements, including the PSM Standard and 29 CFR § 1910.120(p)(8)(iv)(C) (0529, 0598)
- CFATS (0529)
- Texas Railroad Commission requirements (0529)
- Hazardous Waste Operations and Emergency Response standard (0482)

In addition, an industry trade association commented that RCRA facilities are already required to conduct annual coordination activities and should be exempt from the RMP requirements (0592). Several commenters, including an industry trade associations and a facility, stated that facilities already conduct emergency response coordination or training activities voluntarily (0598, 0482, 0458, 0537).

Many commenters, including industry trade associations, facilities, an advocacy group, a professional organization, and a Federal Agency, cited concerns about historical or future lack of LEPC participation in emergency response coordination activities (0598, 0502, 0555, 0565, 0570, 0573, 0333, 0360, 0569, 0595). Several commenters, including private citizens, a professional organization, and advocacy groups, stated that many LEPCs are ineffective, citing examples such as inadequate funding, no requirements to widely disseminate information, avoidance by LEPCs of "alarming the public," inadequate federal oversight and enforcement, failures in informing the public on potential disaster risks, or lack of real authority (0329, 0333, 0360, 0539, TRANS-09, TRANS-19, 0467). A private citizen provided many

specific examples of historic LEPC failures (0539). A professional organization asserted that EPA's proposal is unrealistic because of the central role it provides to LEPCs, which are historically weak and federally unfunded (0360). An industry trade association recommended that EPA should require LEPC contribution (0458). An association of government agencies provided suggested language to address situations in which no LEPC exists, including that the facility shall publish at least annually a public notice that the facility has a Risk Management Plan and provide contact information for further information (0510). A state agency requested that EPA clarify how facilities should demonstrate compliance with coordination requirements when local responders are not available or responsive (0446). An industry trade association stated that, as written, the proposed requirement to coordinate with local emergency response authorities is unenforceable (0557).

Several commenters, including a professional organization, an industry trade association, a private citizen, and state or local agencies, stated that the proposed rule will create or add to existing unfunded mandate(s) for LEPCs (0360, 0452, 0490, 0539, 0594). Several commenters, including a state agency and a private citizen, expressed concerns about the burden placed on LEPCs by the rulemaking (0490, 0539). A state agency expressed that they would be in favor of administering a grant program locally as a liaison between LEPCs and EPA (0490). An industry trade association recommended that EPA provide better support to LEPCs (0528).

Several commenters, including an advocacy group and a union, stated that facilities should bear the financial burden of planning, rehearsing, and conducting coordinated emergency response activities with local responders (0507, 0519). An industry trade association stated that the proposed coordination requirements would impose an unnecessary burden on facilities and local responders (0551).

> **EPA Response:** In the final rule, EPA is adopting the proposed emergency response coordination provisions of § 68.93, with some changes made in order to address the significant number of public comments on this issue. One significant change relates to the modified applicability provisions for responding stationary sources. In addition to removing the two provisions from § 68.90 of the final rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities, EPA is also removing the proposed language in § 68.93 that placed the focus of coordination on ensuring that response resources and capabilities are in place. This language is being replaced with language that places the focus of coordination on sharing information related to emergency planning.
>
> EPA is also clarifying what coordination activities are required. In the final rule, under § 68.93 the owner or operator will be required to provide local authorities with information about the regulated substances at the source, their quantities, the risks presented by covered processes, and the resources and capabilities at the facility to respond to an accidental release of a regulated substance. Section 68.93 (a) will require coordination to occur at least annually, and under § 68.93 (b), the owner or operator will also be required to provide the facility's emergency response plan if one exists, the emergency action plan required under 29 CFR 1910.38, updated emergency contact information, and any other information that local emergency planning and response

organizations identify as relevant to local emergency planning. EPA notes that under 29 CFR 1910.38(b), OSHA requires emergency action plans to be kept in writing, unless an employer has 10 or fewer employees, in which case they may communicate the plan orally to employees. Under the final rule, if the owner or operator has a written emergency action plan, that written plan should be provided to local authorities, but if the plan is an oral plan, the owner or operator may also communicate the plan orally to local authorities.

In requiring "any other information that local emergency planning and response organizations identify as relevant to local emergency planning," EPA is encouraging local emergency officials to consider what other facility information may aid them in preparing for emergencies at the source beyond those specific elements identified in § 68.93 and § 68.93(b), and request such information from the owner or operator when conducting annual coordination activities. Such information could include accident histories, portions of incident investigation reports relevant to emergency response, incident after-action reports, records of notification exercises, field and tabletop exercise evaluation reports, etc. The owner or operator will be required to provide any information requested by local emergency planning and response organizations, to the extent that the information is relevant to local emergency planning.

EPA disagrees with commenters who suggested not adopting the proposed emergency response coordination requirements on the basis that they are already required under other regulations, or are being carried out voluntarily. While it is true that in some cases, other Federal or state regulations contain emergency response coordination provisions similar to those in the final rule, many regulated sources are not subject to other regulations with requirements comparable to those in the final rule. Where regulated sources are already subject to other Federal or state emergency response coordination requirements comparable to those in the final rule, compliance with those regulations may be used to demonstrate compliance with the final rule, to the extent the activities meet the specific requirements of the rule. Similarly, while EPA agrees that some facilities may already voluntarily carry out the coordination activities required under the final rule, not all regulated facilities do so. Facilities that already carry out these activities voluntarily may also use them to demonstrate compliance with the final rule to the extent the activities meet the specific requirements of the rule.

EPA understands that some communities do not have functional LEPCs, but has accounted for this possibility by requiring coordination to be with "local emergency planning and response organizations." This term is intended to encompass all manner of local public emergency planning and response organizations. In many cases this will be the LEPC, but in other cases it may be a local emergency management agency, a local fire department, or another local response organization. Regardless of whether or not their community has an active LEPC, EPA expects owners and operators of regulated sources to make good faith efforts to carry out the coordination activities required in the final rule. If local emergency planning and response organizations decline to participate in coordination activities, or the owner or operator cannot identify any appropriate local emergency planning and response organization with which to coordinate, the owner or operator should document their coordination efforts, and continue to attempt to perform coordination activities at least annually.

EPA is also aware that increasing regulated facilities' emergency response coordination obligations will often place increased demands on local emergency planning and response organizations through increased coordination requests made by the owners or operators of regulated sources located in their communities. This is an unavoidable consequence of increasing the owner or operator's emergency response coordination obligations. However, EPA notes that the final rule's emergency response coordination requirements are intended to be a straightforward information exchange for both regulated sources and local response organizations, and therefore should not be highly burdensome for either party. Also, the regulatory requirements for coordination will be placed on the owner or operator, rather than local emergency planning and response organizations. Therefore, local response organizations will not be obligated to participate in the coordination activities specified in the final rule. However, EPA expects that in most cases, local responders will participate in these coordination activities because it is in their best interest to have up to date information about the risks posed by regulated stationary sources in their community and sources' emergency response plans.

3.1.5.3. Frequency of emergency response coordination activities

Comment: Many commenters, including state agencies and industry trade associations, expressed support for EPA's proposal to require annual documented coordination activities between owner/operators and local emergency response officials (0473, 0458, 0476, 0528, 0564, 0594). A state or local agency stated that this coordination could help clarify roles and responsibilities and refresh contacts (0564).

A private citizen stated, based on experiences in California with CalARP regulations, that annual coordination may be difficult to achieve (0443). An industry trade association stated that annual coordination may not be practical if the source is remote or LEPCs refuse to participate (0528).

An industry trade association suggested that coordination activities should occur on a regular basis at an appropriate frequency determined by the facility and when there is a non-administrative change to the source's emergency plan (0528). An industry trade association stated that the requirement to coordinate "if necessary" should be tied to an objectively knowable change in circumstance, and notification to the source must occur (0594).

Another commenter stated that coordination should occur, but the frequency should be left up to the owner or operator and local authorities to decide (0473, 0458, 0476).

EPA Response: EPA is finalizing the proposed requirement at § 68.93(a) for coordination to occur at least annually and more frequently if necessary. EPA agrees with the majority of commenters that believe that regular ongoing coordination is useful to address changes at the source and in the local community emergency plan. EPA believes that most sources are located close enough to local responders to make annual coordination activities practical. Where necessary, owners and operators and local authorities may conduct coordination activities remotely (e.g., using conference calls, webinars, email, etc.). EPA does not agree that the frequency of coordination should be left completely up to the source. Sources and local response organizations may choose to coordinate more frequently than annually, but the Agency believes that annual emergency coordination between regulated sources and local responders is necessary

to the development and maintenance of effective response plans, and unlikely to impose an undue burden on any source.

3.1.6. Annual coordination meetings and information exchange

Comment: Several commenters agreed that coordination activities should include regular communication between the owner or operator and local authorities (0490, 0545, 0452, 0458, 0594). These commenters noted that this would provide opportunities for both parties to exchange, update, and discuss information relating to emergency response planning. One commenter noted that annual meetings would allow the owner or operator to communicate potentially security-sensitive information needed for emergency preparedness and response (0537). One commenter indicated that coordination of information may include telephone or email communications and should not infer a face-to face meeting between the source and the response community as the only means (0528). A few commenters suggested that EPA's proposed coordination and notification activities could be addressed by participation by facilities in regularly scheduled LEPC meetings (0490, 0452). A few commenters noted that while they were in favor of coordination meetings, the owner or operator should not be held to a requirement for such meetings in situations where local authorities are unable or unwilling to participate in coordination efforts, or that EPA should explain how this situation should be addressed (0595, 0527, 0529, 0446). An advocacy group stated that the final rule should provide more clarity as to the roles of LEPCs and facilities in emergency preparation, including facility's requirements to share hazard and emergency planning information (0467). A few commenters, including a state agency and a private citizen, supported the concept of active participation by RMP facilities, or if no LEPC exists, representation to the appropriate emergency management organization(s) as determined by the local emergency management office (0452, 0539). A facility said that annual coordination on emergency response plan changes may be challenging for reasons such as burden to local responders and unavailability of local responders (0531).

EPA Response: In § 68.93 (b) of the final rule, as part of the required annual coordination activities, EPA is requiring the owner or operator to request an opportunity to meet with the LEPC (or equivalent) and/or local fire department. The purpose of the annual coordination meeting is to allow the owner or operator to update and discuss the information being provided to local authorities, and to allow local authorities to provide the owner or operator with updated information on how the source is addressed in the community emergency response plan. The annual coordination meeting will also provide an opportunity for local authorities to request any other information that may be relevant to local emergency planning, and for the owner or operator to provide this information. In the final rule, EPA is wording the meeting requirement to only require the owner or operator to request such a meeting, so that the owner or operator would not be required to hold a meeting if local authorities are unable or unwilling to participate. The forum for coordination meetings is left up to the discretion of the owner or operator and local response authorities. They may choose to hold a meeting specifically for this purpose, or combine the coordination meeting with another appropriate meeting, such as a regularly scheduled LEPC meeting, if both parties agree to the arrangement. Where necessary, owners and operators and local authorities may hold meetings remotely (e.g., via conference call or webinar).

3.1.7. Coordination of exercise frequencies and plans

Comment: Numerous commenters, including industry trade associations, a state agency, a Federal Agency, facilities, and an association of government agencies, stated that the requirement to conduct a field exercise every five years is overly burdensome (0554, 0510, 0490, 0536, 0542, 0497, 0502, 0538, 0560). Several commenters, including a state agency and a Federal Agency, addressed impacts to small businesses specifically (0490, 0502). Many commenters, including an industry trade association, asserted that this provision would not provide clear additional benefits beyond those incurred from conducting annual tabletop exercises (0554).

A few commenters, including an industry trade association and another commenter, stated that EPA's estimates for the costs to conduct a full field exercise are underestimated (0554, 0562).

> **EPA Response:** EPA understands that there may be cases where local emergency response agencies are unable or unwilling to coordinate with a regulated stationary source on exercise frequencies and plans, or to participate in exercises. In such cases, the owner or operator may establish appropriate exercise frequencies and plans on their own, provided they meet the minimum requirements set forth in § 68.96. Also, the owner or operator should revisit their exercise schedules and plans at the next annual coordination opportunity with local response officials, so that these officials are given an opportunity for input on exercise schedules and plans, even if they remain unable to participate in the exercises.

3.1.8. Documentation of coordination activities

Comment: Several commenters, including an association of government agencies, supported required documentation of coordination activities (0510). A facility suggested that EPA provide guidance on communication protocols and procedures that can be used to satisfy the proposed documentation requirements and templates or form letters that can be used to memorialize understanding with respect to coordination efforts (0589).

Several commenters, including a Federal Agency, a facility, an association of government agencies, and industry trade associations, suggested that EPA require that facilities and/or small businesses make reasonable attempt to make arrangements with local responders and document any failure to complete such arrangements, consistent with EPA's approach for hazardous waste generators (0502, 0555, 0561, 0595, 0476, 0510, 0527, 0494, 0521). An industry trade association expressed concerns about the paper trail that would be created by required documentation of coordination activities, which could "serve as a basis for mutual accusations or second-guessing between first responders and the RMP-regulated facility in the aftermath of an emergency" (0598). A private citizen commented that fire departments in California have found CalARP requirements to document coordination to be a large burden (0443).

An association of government agencies suggested that facilities should be required to seek a written or electronic acknowledgement from local responders of coordination efforts, or, if unavailable, the facility should document efforts made (0510). An industry trade association stated that if facilities are captured in the community response plan, this should be all the documentation needed to demonstrate coordination (0594).

> **EPA Response:** EPA is finalizing the requirement at § 68.93(c) for coordination to be documented, as proposed (the final rule will reverse the order that the coordination and

documentation provisions appear in the regulatory text). The final rule will not specifically require the owner or operator to seek acknowledgement from local responders of coordination efforts. The owner or operator may seek such acknowledgement if desired, but local authorities will not be required to provide it. EPA believes that the required documentation elements, which include the names of individuals involved in coordination activities and their contact information, the dates of coordination activities, and the nature of coordination activities, should clearly demonstrate whether local responders were involved in coordination, without requiring any other specific acknowledgement from local responders. EPA agrees with commenters that suggested the owner or operator should document any unsuccessful attempts to coordinate with local response organizations. The final rule will not specifically require the owner or operator to document unsuccessful coordination attempts, but EPA believes it will be in the owner or operator's best interest to do so, and allow the owner or operator to demonstrate their good faith efforts to conduct coordination activities in the event that an implementing agency requests this information.

EPA does not agree with commenters' objections to documentation of coordination activities. If response to an emergency goes badly, documentation of prior coordination is more likely to clarify deficiencies than obscure or exacerbate them. The objection that documentation could cause a large burden on fire departments is not applicable to this provision, as the requirement for documentation in the final rule will be placed on the owner or operator rather than local responders, and in any case, the Agency does not view the documentation requirement as highly burdensome. Most of the documents that the final rule will require the owner or operator to provide to local authorities are either already required to exist (i.e., emergency response plan and emergency action plan), or should require minimal effort to produce (i.e., updated emergency contact information, names and contact information of individuals involved in coordination activities, dates of coordination activities, and the nature of coordination activities). EPA views these documentation requirements as straightforward and minimally burdensome.

During coordination meetings, EPA encourages owners and operators to provide local emergency response officials with additional documentation relating to emergency planning if those officials request it. The annual coordination provisions will require the owner or operator to ensure that local response organizations are aware of the regulated substances at the source, their quantities, the risks presented by covered processes, and the resources and capabilities at the facility to respond to an accidental release of a regulated substance. The final rule will also require the owner or operator to provide any other information that local emergency planning and response organizations identify as relevant to local emergency planning. In most cases, the Agency believes that the most efficient way for the owner or operator to provide such information is to not only discuss it during annual coordination meetings, but also to provide appropriate documentation to local authorities. While providing additional documentation beyond the elements specified in § 68.93(b) and (c) will not be required under the final rule, it could be required by an LEPC using its authority under section 303(d)(3) of EPCRA, which requires the owner or operator to promptly provide, upon request from the LEPC, information necessary for developing and implementing the community emergency plan.

EPA does not agree that a facility's inclusion in the community response plan is sufficient documentation to demonstrate annual coordination. EPA notes that community emergency response plans are not prepared or maintained by stationary sources, and that EPCRA does not require community emergency plans to be updated annually. Without regular emergency response coordination activities involving local authorities, the owner or operator could remain unaware of important changes in the community emergency plan, and local responders could remain unaware of changes at the source that could potentially affect the response to an accidental release.

EPA believes that there is a wide range of potential outcomes from emergency response coordination activities, but the primary purpose of such coordination should be the regular sharing of information between the owner or operator and local response authorities. Both the owner or operator and local responders should benefit from this exchange by becoming more aware of each organization's response capabilities, resources, and procedures. Based on these increased coordination activities, both regulated sources and local response organizations will be better able to adapt their response plans and procedures to updated information. This information exchange could also prompt some facilities to enhance their existing response capabilities, and even to develop a full emergency response program where none previously existed. Conversely, such increased coordination could result in local authorities, in consultation with an owner or operator, deciding that local public responders are better positioned to respond to releases of regulated substances at the source than the facility itself. Additionally, coordination could lead to development of mutual aid agreements with neighboring facilities, arrangements with response contractors, or other means to improve community and/or facility response plans, procedures, and resources. Such measures could enhance both the community's and facility's ability to effectively respond to emergencies without necessarily requiring a facility to maintain its own hazardous materials response team and/or fire brigade, unless the owner or operator, after coordinating with local authorities, decides that this is the most effective approach.

3.1.9. Recommended changes to emergency response program provisions

3.1.9.1. Suggested revisions to § 68.95(a)(1)(i)

Comment: An association of government agencies recommended specific changes to the language of subparagraph (a)(1)(i), indicating that the provision should provide for "immediately" informing the public and response agencies (0510). A private citizen also provided specific comments on the language of this subparagraph. This commenter stated that informing the public seems to be a misplaced duty for facilities. The commenter further stated that the provision should be deleted, and that existing local emergency notification systems could be used instead (0469).

EPA Response: EPA's only proposed change to this subparagraph was to add language requiring emergency notification procedures to include informing Federal and state emergency response agencies. The existing rule provision already required such procedures to inform the public and local emergency response agencies. Therefore, these comments are beyond the scope of this rulemaking. However, EPA disagrees with the commenter indicating that informing the public is a misplaced duty for owners or operators. During emergencies, owners or operators of responding facilities will often contact local emergency response authorities and request those

authorities provide public notification of the emergency using local emergency notification systems. In effect, these owners and operators are carrying out their duty to notify the public with the assistance of local authorities. However, this does not mean that the owner or operator should not also provide direct public emergency notification where appropriate. Many facilities use audible or visual alarm systems in order to notify both on-site workers and nearby members of the public about emergencies at the site. In many cases, such systems can provide faster notification to a source's immediate neighbors than local emergency notification systems.

3.1.9.2. Suggested revisions to § 68.95(a)(4)

Comment: A private citizen stated that the required frequency for updating emergency action plans should be at least every three years or more often as necessary after performing tabletop drills and exercises, asserting that annual updates may be challenging as it may be difficult for a stationary source to know when the authority's response resources have changed (0443). An industry trade association suggested that annual emergency response program review should occur every five years unless changes occur (e.g., management, operation, or physical changes), in which case the review should occur within 60 days of the change (0551).

A few commenters, including an industry trade association and a facility, suggested that EPA remove or clarify the phrase "other available information" from § 68.95(a)(4) because it is vague (0560, 0594). An industry trade association said that the requirement to update emergency response plans "if necessary" is vague (0594). An industry trade association stated that the requirement to develop procedures to inform the public and appropriate emergency response agencies is unclear (0565).

A few commenters, including an industry trade association and a private citizen, commented that EPA's proposed requirements to update emergency response plans when changes occur assumes that facilities will know when changes in community emergency response resources and capabilities occur (0594, 0459). A private citizen commented that the burden for acquiring information on changes is placed with the LEPC under 42 U.S.C. 11003 and stated that the requirement should be reworded so enforcement follows statutory duties (0459). A facility requested that EPA clarify in the final rule that facilities would not be deemed noncompliant if changes in local authorities' response or capabilities occur without notification to the facility (0435). A private citizen suggested that EPA add a requirement that the facility be provided a copy of governmental entities' response plans (0459).

An association of government agencies recommended specific changes to the language of paragraph (a)(4), indicating that the provision should include "recommendations by the LEPC or emergency response organizations" (0510). A private citizen also recommended specific changes to this paragraph, indicating that:

- EPA should clarify what is meant by "and other information" under paragraph (a)(4).
- Facilities do not have power to demand access to incident reports from responding governmental entities, which would be needed to incorporate lessons learned. If facilities are required to collect these reports, EPA should add a provision to the final rule that allows for an automatic time extension to recognize potential delays in requiring such reports and clarify what facilities should do if a 43 U.S.C. 11003 entity is inactive or non-existent.
- Paragraph (a)(4) may need revisions if changes are made to the proposed Subpart E in the final rule.

EPA Response: The final rule will adopt a modified version of the proposed emergency response plan update provision. Under the final rule, the owner or operator must review and update the emergency response plan as appropriate based on changes at the source or new information obtained from coordination activities, emergency response exercises, incident investigations, or other available information, and ensure that employees are informed of the changes. EPA agrees with commenters who stated that requiring annual emergency response plan updates is not necessary. EPA is not finalizing a requirement to update the emergency response plan annually, because while coordination activities will occur annually, they may not always generate information that necessitates changes to the facility's emergency response plan. Other events that could trigger updates to the emergency response plan, such as incident investigations and field and tabletop exercises, may also occur less frequently than annually, and may or may not produce information that could affect the emergency response plan. Therefore, EPA is finalizing a more flexible update provision. Under the final rule, the owner or operator will be required to update the emergency response plan, but only when changes at the source, or new information obtained from coordination activities, exercises, incident investigations, or other information sources make it appropriate to change the plan. Regarding commenters concerns that EPA has used "vague" language in the phrase "other available information," EPA is intentionally using general language here because the Agency cannot predict every source of information that may prompt the owner or operator to update their emergency response plan. In this case, as with several other provisions of the RMP rule, owners and operators are required to exercise their best judgement in deciding whether information should lead to action.

EPA disagrees with commenters who stated that the owner or operator will be unaware of changes in community emergency response resources that could affect the source's emergency response plan. EPA believes the annual coordination provision should ensure that the owner or operator is kept up to date on relevant changes in the community emergency response plan. EPA agrees with commenters that the owner or operator should not be held responsible for updating the facility emergency response plan to reflect changes in the local community emergency response plan if local response officials do not provide the necessary information. However, the Agency is not requiring local authorities to provide a complete copy of the local community emergency plan to the owner or operator. Local authorities may provide it if they choose, and in some cases the community emergency response plan may be publicly available information. However, the local community emergency response plan may also contain a significant amount of information that is not relevant to the owner or operator, so local response authorities may prefer to provide only the information from the community emergency response plan that relates to the stationary source.

Regarding the comment expressing concern that the proposal would require regulated sources to "demand information or reports from local responders", the final rule will contain no such language. The final rule will require the owner or operator to coordinate emergency response needs with local emergency planning and response authorities. Coordination includes providing to the local emergency planning and response organizations: the facility's emergency response plan if one exists, emergency action plan, updated emergency contact information, and any other information that local emergency planning and response organizations identify as relevant to local emergency response planning. For responding stationary sources, coordination shall also include consulting with local emergency response officials to establish appropriate schedules and plans for field and tabletop exercises required under § 68.96(b). The final rule will also require the owner or operator to request

an opportunity to meet with the LEPC (or equivalent) and/or local fire department as appropriate to review and discuss these materials. EPA encourages local authorities to participate in coordination meetings and to provide relevant emergency planning information requested by owners and operators; however, the regulatory requirements for coordination will be placed on the owner or operator, rather than local emergency planning and response organizations. Therefore, local response organizations will not be obligated to participate in the coordination activities specified in the final rule.

3.1.9.3. Suggested revisions to § 68.95(c)

Comment: An association of government agencies recommended specific changes to the language of paragraph (c), indicating that the provision should be removed because it misapprehends how communities actually create emergency response and preparedness plans (0510). A private citizen also recommended specific changes to this paragraph, indicating that the provision assumes the emergency response plan is functional whenever an update is needed (0459). A facility stated that EPA's proposed wording of § 68.95(c) is open-ended and inappropriate and provided a proposed revision to the language to reflect that facilities should provide information pertinent to the stationary source and in the possession or control of the owner/operator (0489).

EPA Response: EPA's only proposed change to this paragraph was clerical – EPA proposed to replace the phrase "local emergency planning committee" with the acronym "LEPC." EPA received no comments on this proposed change. Since EPA proposed no other changes to this paragraph, these comments are beyond the scope of EPA's proposal.

3.1.10. Other suggested revisions to § 68.95

Comment: A union suggested that workers should be involved in annual reviews of the emergency response program (0519).

EPA Response: In the final rule, the Agency is including a requirement to ensure that employees are informed of any changes to the emergency response plan. This requirement was already in § 68.95(a)(4) of the existing rule, but had inadvertently been omitted from the proposed rule language that revised this section. One commenter noted this issue, and stated that workers should continue to be involved in reviewing the emergency response plan. EPA agrees, and therefore is restoring this provision in the final rule.

Comment: An industry trade association asked whether: responding facilities must attempt to put out a fire, and if so, whether activation of deluge systems satisfies the requirements of § 68.95(a)(2,3). The association also stated that they did not support the proposal if smaller responding facilities must always have fully developed fire-fighting capabilities (0536).

EPA Response: The final rule's emergency response program requirements will not specify how responding facilities must respond to accidental releases. EPA recognizes that response strategies for responding sources may vary depending on the source, its location, the number and type of regulated substances and processes, available response resources, and other factors. EPA acknowledges that in some cases, purely "defensive" response measures, such as evacuating facility employees and members of the public to a safe distance, and using automatic fire suppression systems, or allowing a fire to burn itself out, may be an appropriate response strategy.

EPA encourages owners and operators of both responding and non-responding facilities to work together with local responders to develop appropriate response strategies as part of their annual emergency response coordination meetings and information exchange.

Comment: A private citizen suggested that EPA require concurrence by the facility with local authorities' response plans (0459).

EPA Response: EPA disagrees with this suggestion. While EPA encourages local authorities to discuss relevant aspects of the local community emergency plan with owners and operators during annual coordination meetings, EPA does not believe that local authorities should be required to obtain the owner or operator's concurrence with that plan. Community emergency response plans are subject to numerous influences, including potential demands within the community for local response resources, local government organization and budgets, federal, state, and local regulations, and others. Few of these factors are within the purview of the owners and operators of individual regulated facilities, and therefore in many cases, owners and operators will not be in a position to judge the adequacy of community emergency response plans.

Comment: A private citizen made several comments on the proposed language of § 68.93 (0459):

- EPA's proposal assumes a one-to-one relationship between the facility and local public organizations and should address the role of private entities.
- Facilities do not have the authority to "ensure any action by governmental entities," nor to demand their readiness in any facility emergency.
- The term "local authorities" is not defined.
- EPA does not state what entity might be a coordination alternative to the LEPC if the LEPC is not suitably functional.
- It is not clear how facilities can ensure inclusion by the local authorities' plan or how this would be enforced.
- It is not clear why separate coordination with fire departments is called out in the proposal and how this affects notification requirements if unignited flammables or combustion products can migrate offsite. The proposal assumes that these materials will not migrate offsite and thus not require involvement from other local entities.

EPA Response: EPA is aware that there is not always a one-to-one relationship between regulated sources and local response organizations, and the final rule will not presuppose that such a relationship exists. The final rule will require the owner or operator to coordinate response needs with "local emergency planning and response organizations." EPA is not defining this term in the final rule but is explaining in the preamble that it is intended to encompass all manner of local public emergency planning and response organizations. In some cases, coordination with a single organization, such as the LEPC or a facility's local fire department, may be appropriate, while in other cases, coordination may involve more than one local emergency planning and response organization. By using the plural ("organizations"), EPA intends that coordination involve all appropriate local planning and response organizations. Private entities that are retained by the owner or operator to respond to accidental releases at the source would not be considered local public emergency planning or response organizations, but should be integrated into the source's emergency response program as appropriate.

EPA understands that owners or operators of regulated sources cannot compel local public responders to participate in coordination activities or to maintain readiness for accidental releases at the source. The final rule will not require local response organizations to respond to accidental releases at regulated stationary sources. The final rule's coordination requirements will be placed on the owner or operator, rather than local emergency planning and response organizations. While EPA encourages local authorities to participate in the coordination activities specified in the final rule, they will not be obligated to do so. EPA expects owners and operators of regulated sources to make good faith efforts to carry out the coordination activities required in the final rule. If local emergency planning and response organizations decline to participate in coordination activities or the owner or operator cannot identify any appropriate local emergency planning and response organization with which to coordinate, the owner or operator should document their coordination efforts, and continue to attempt to perform coordination activities at least annually.

EPA disagrees that the proposed rule assumes that flammable materials will not migrate offsite. Non-responding stationary sources with only regulated flammable substances held in a process above the threshold quantity are only required to coordinate with the local fire department because EPA believes that local fire departments will generally respond to accidental releases of regulated flammable substances from these sources, whether or not those substances migrate off site. If the owner or operator or local authorities believe that a stationary source holding only flammable substances should coordinate with local responder organizations in addition to the local fire department, EPA encourages the owner or operator to do so.

Comment: A private citizen suggested that EPA integrate its emergency response requirements with response requirements for transport, waste site, oil spill and other hazmat responses and response requirements (0459).

EPA Response: EPA's authority for imposing emergency response program requirements under 40 CFR part 68 derives from CAA section 112(r). The emergency response requirements raised by the commenter are authorized by other statutes. Therefore, EPA cannot incorporate part 68 emergency response requirements into these other regulations. However, where an owner or operator takes action to comply with emergency response requirements under another regulation, those same actions may also be used to demonstrate compliance with part 68, provided they satisfy part 68 requirements.

Comment: A Federal agency stated that EPA's proposal does not sufficiently address the impacts to small businesses associated with inactive or non-responsive and non-existing LEPCs (0502).

EPA Response: EPA disagrees that the final rule's emergency coordination requirements will disproportionately impact small businesses. The Agency is not finalizing the proposed rule's emergency response coordination provisions that would have had the greatest impact on small businesses. Specifically, EPA is removing the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities. EPA believes that by making these changes, the regulatory provisions that would potentially have caused many sources to convert from being

non-responding sources to responding sources are being removed from the final rule. The emergency coordination provisions of the final rule will require regulated sources to coordinate annually with local responders and to document coordination activities. If local emergency planning and response organizations decline to participate in coordination activities, or the owner or operator cannot identify any appropriate local emergency planning and response organization with which to coordinate, the owner or operator should document their coordination efforts, and continue to attempt to perform coordination activities at least annually.

Comment: A facility commented that EPA should work with RMP-regulated companies to better understand resources available to facilities and local responders (0531).

EPA Response: EPA appreciates the commenter's suggestion. The Agency engages in a variety of efforts to assist both regulated sources and local responders to understand and comply with part 68 regulatory requirements, including the rule's emergency response provisions. EPA intends to continue this work.

3.2. Facility Exercises

3.2.1. Notification exercises

Comment:

Support for proposed notification exercise requirements

Many commenters, including industry trade associations, state and local agencies, and an association of government agencies supported the proposed annual notification exercise requirement. Many of these commenters stated notification systems must be tested regularly to ensure they function successfully in the event of an emergency (0406, 0452, 0476, 0490, 0554, 0458, 0452, 0598, 0510, 0530, 0528, 0544, 0579, 0586, 0594).

Opposition or recommendations for changes to notification exercise requirements

A few commenters opposed or recommended changes to the proposed notification exercise requirements. An industry trade association supported a requirement to confirm contact information but opposed the requirement to send an actual "test" notification, stating that this would be an unnecessary and/or duplicative burden on facilities and responding organizations. This association also requested that EPA exempt "RCRA-permitted facilities for whom the regulated RMP process is covered by the RCRA permit" from annual notification exercise requirements, stating that these requirements are duplicative of RCRA requirements (0592). Another industry trade association supported a requirement for emergency notification exercises, but suggested that notification exercises should occur every five years unless changes occur (e.g., management, operation, or physical changes), in which case they should occur within 60 days of the change (0551). A third industry trade association suggested that EPA clarify what is required as annual notification and to whom it is required (0476).

EPA Response: Due to the significant support for and minimal opposition to the proposed notification exercise requirements of § 68.96(a), EPA is finalizing those requirements without modification. Therefore, under the final rule, all regulated sources with any Program 2 or Program 3 process must conduct an exercise of the source's emergency response notification mechanisms at least once each calendar year. During listening sessions conducted under EO 13650, members of the public expressed significant concerns about ineffective emergency notification systems and procedures during accidental release events at regulated sources, and about receiving little or no information on procedures for evacuation and sheltering-in-place. In most cases, community notification, evacuation, and sheltering are managed by local authorities after receiving an emergency notification from the regulated source. EPA encourages owners and operators to work with local authorities to perform joint comprehensive testing of facility and community notification systems where possible, and to provide updated information to local communities on evacuation and sheltering procedures. In some cases, regulated facilities provide direct notification to nearby residents and other members of the community when an accident has occurred. These may include audible and/or visual alarms and sirens, reverse 911 calling systems, or other direct notification systems. Where such systems are in place, annual notification exercises should include tests of those systems during the exercise. In either case, EPA recommends regulated sources and communities work together after conducting notification exercises to evaluate the effectiveness of notification, evacuation, and sheltering systems and procedures, and make improvements to those systems and procedures as appropriate, based on lessons learned during exercises.

EPA disagrees notification exercises should occur every five years unless changes occur because the Agency believes five years is too long of a gap in confirming emergency notification information is correct and emergency notification systems function properly. EPA also disagrees management, operational, and physical changes at the facility necessarily represent appropriate triggers for verification of emergency response contact information. In some cases, such changes may affect emergency notification, but notification systems and procedures may also be affected by other changes, such as changes in the community emergency response plan. While EPA believes it would be beneficial for the owner or operator to update their emergency contact information and confirm the functionality of notification systems when relevant changes occur, in some cases changes that affect emergency contact information and notification systems may be infrequent, and result in facility personnel and local responders becoming unfamiliar with stationary source emergency notification procedures. EPA believes a requirement for annual notification exercises will ensure that emergency contact information and notification systems remain relatively current and also provide regular training for facility personnel and local responders.

EPA also disagrees that requiring an actual test of the facility's notification system is unnecessary. Requiring annual testing of notification systems should prevent situations where emergency notification systems are only found to be ineffective when they are most needed. Short of actually having an accidental release, performing a test of the facility's emergency notification system is the most practical way to evaluate whether or not the system is functional.

EPA expects the notification exercise will involve testing of on-site notification equipment and procedures, including contacting each entity listed on the facility's notification list to verify the contact information and identify that the facility is conducting a notification exercise. Therefore, EPA does not believe testing notification mechanisms is unduly burdensome. EPA also disagrees with exempting RCRA-permitted facilities from the notification exercise requirement. However, in the final rule, EPA is adding § 68.96(c) to clarify that exercises conducted to meet other Federal, state, or local exercise requirements will also satisfy the requirements of this rule, provided the exercise meets all of the applicable requirements of the RMP exercise provision.

3.2.2. Field and tabletop exercises

3.2.2.1. General support for provision as proposed

Comment:

General support for proposed field and tabletop exercise requirements

Several commenters, including industry trade associations, government agencies, facilities, and others provided general support for EPA's proposed exercise requirements (TRANS-05, 0476, 0495, 0403, 0435, 0450, 0453, 0527, 0534, 0560).

Support for applying field and/or tabletop exercise requirements only to responding facilities

An industry trade association stated that field exercises should only be required for responding facilities (0528). Another industry trade association indicated that the Agency should only mandate tabletop exercises, but appreciated EPA's decision to restrict field and tabletop exercise requirements to responding facilities (0555).

EPA Response: EPA appreciates the commenters' support. In the final rule, EPA is retaining a requirement for field and tabletop exercises, but with some modifications. Field and tabletop exercise requirements will apply only to responding facilities, but the minimum required frequency for field and tabletop exercises will be changed. In the final rule, EPA is modifying the provision for frequency of both field and tabletop exercises to allow sources and local responders to work together to establish an exercise frequency appropriate to their situation. However, as EPA continues to believe that both field and tabletop exercises are an important component of an emergency response program, the Agency does not believe any responding source should be allowed to reach an agreement that practically exempts the source from the exercise program requirements. This could happen if a source reached agreement with local responders to hold exercises at some extremely long periodicity. Therefore, the Agency is also establishing a minimum required exercise frequency of ten years for field exercises, and three

years for tabletop exercises. Additionally, EPA is not finalizing the requirement to conduct a field exercise within one year of an accidental release, but will allow facilities to meet requirements for notification, field, and/or tabletop exercises either through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96, as appropriate.

3.2.2.2. General opposition to proposed field and/or tabletop exercise requirements

Comment: Many commenters, including industry trade associations, government agencies, facilities, and others, recommended eliminating the requirement for field and/or tabletop exercises. Some of these commenters indicated that the proposed exercise requirements would divert emergency responders away from other activities (0458, 0463, 0500, 0528, 0587, 0500, 0417, 0531, 0538, 0555, 0504). Numerous commenters, including industry trade associations, a state agency, a Federal Agency, facilities, and an association of government agencies, stated that the requirement to conduct a field exercise every five years is overly burdensome (0554, 0510, 0490, 0536, 0542, 0497, 0502, 0538, 0560, 0537, 0598, 0500, 0492, 0531, 0595, 0453, 0569). Several commenters, including a state government agency and a Federal Agency, addressed impacts to small businesses specifically (0417, 0452, 0490, 0502, 0594). An industry trade association asserted that this provision would not provide clear additional benefits beyond those incurred from conducting annual tabletop exercises (0554). An industry trade association stated that EPA should not require field or tabletop exercises, but, if exercises are required, EPA should require only annual tabletop exercises (0587).

Several commenters, including industry trade associations and a Federal Agency, recommended eliminating the requirement for field and/or tabletop exercises, providing reasons such as burden to local responders and facilities and sufficiency of annual coordination activities (0458, 0500, 0528, 0587, 0504). Several commenters, including facilities, a Federal Agency, and an industry trade association, supported allowing only tabletop exercises instead of field exercises, citing reasons such as burden of field exercises and sufficiency of tabletop exercises (0542, 0555, 0502, 0538, 0560). One of these commenters indicated that field exercises have the potential to cause accidents and damage to facilities as emergency equipment is brought on- and offsite in simulated emergency circumstances (0555).

EPA Response: EPA disagrees with comments that recommend completely eliminating requirements for field and/or tabletop exercises in the final rule. The Agency views field and tabletop exercises as important components of an emergency response program for responding stationary sources, because they allow these sources to implement their emergency response plans under simulated release conditions, test their actual response procedures and capabilities, identify potential shortfalls, and take corrective action. EPA also continues to believe both field and tabletop exercises will provide essential training for facility personnel and local responders in responding to accidental releases, and will ultimately mitigate the effects of such releases at RMP facilities. Therefore, in the final rule, EPA is requiring all responding stationary sources to perform both field and tabletop exercises. However, EPA is also modifying some provisions of § 68.96 in order to address public comments concerning the required frequency of exercises, post-accident exercises, and alternative means of meeting exercise requirements. In the final rule, EPA is modifying the provision for frequency of both field and tabletop exercises to allow

sources and local responders to work together to establish an exercise frequency appropriate to their situation. However, as EPA continues to believe that both field and tabletop exercises are an important component of an emergency response program, the Agency does not believe any responding source should be allowed to reach an agreement that practically exempts the source from the exercise program requirements. This could happen if a source reached agreement with local responders to hold exercises at some extremely long periodicity. Therefore, the Agency is also establishing a minimum required exercise frequency of ten years for field exercises, and three years for tabletop exercises. Additionally, EPA is not finalizing the requirement to conduct a field exercise within one year of an accidental release, but is allowing facilities to meet requirements for notification, field, and/or tabletop exercises either through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96, as appropriate.

Regarding the commenter concerned about the possibility that field exercises could cause accidents and damage to facilities as emergency equipment is brought on- and offsite in simulated emergency circumstances, EPA shares such concerns, but disagrees that this concern outweighs the benefits of conducting field exercises. Also, by allowing owners, operators and local responders significant flexibility in the planning and scheduling of exercises, EPA expects that sources and responders should be able to take necessary precautions to ensure that exercises are conducted as safely as possible.

3.2.2.3. Opposition to applying field and/or tabletop exercise requirements only to responding facilities

Comment: One commenter suggested that EPA only require exercises for industry sectors that have a history of catastrophic events and/or RMP non-compliance (0562).

EPA Response: EPA disagrees that emergency response field or tabletop exercise requirements should be applied to selected industry sectors based on the accident history of that sector or its history of non-compliance with the RMP regulation. The Agency views field and tabletop exercises as important components of an emergency response program for all responding stationary sources, because they allow these sources to implement their emergency response plans under simulated release conditions, test their actual response procedures and capabilities, identify potential shortfalls, and take corrective action. EPA also continues to believe both field and tabletop exercises will provide essential training for facility personnel and local responders in responding to accidental releases, and will ultimately mitigate the effects of such releases at RMP facilities. Therefore, in the final rule, EPA is requiring all responding stationary sources to perform both field and tabletop exercises.

3.2.2.4. Frequency of exercises

Support for proposed exercise frequency

Comment: Several commenters supported EPA's proposed frequency for field and/or tabletop exercises (0408, 0535, 0560, 0562).

EPA Response: EPA appreciates the commenters' support. However, due to the numerous comments opposing EPA's proposed frequencies for field and tabletop exercises, EPA is modifying the provision for frequency of both field and tabletop exercises to allow sources and local responders to work together to establish an exercise frequency appropriate to their situation. The Agency is also establishing a minimum required exercise frequency of ten years for field exercises, and three years for tabletop exercises. Additionally, EPA is not finalizing the requirement to conduct a field exercise within one year of an accidental release, but will allow facilities to meet requirements for notification, field, and/or tabletop exercises either through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96(a) and (b), as appropriate.

Recommendations for more frequent exercises

Comment: Many commenters, including advocacy groups and an environmental advocacy coalition of approximately 140 commenters, recommended that EPA require field exercises annually. One of these commenters indicated that a five-year timeframe for emergency response field exercises does not conform to the standard set forth by CAA under § 7412(r)(7)(B)(i), which states "the Administrator shall promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners or operators of the sources of such releases" (0575). Commenters also provided reasons such as personnel turnover leading to loss of institutional knowledge and the insufficiency of the proposed five-year requirement (0406, 0467, 0575). A state government agency stated that field exercises should be conducted annually and suggested that EPA revise requirements to coincide with N.J.A.C. 7:31:5.2(b)2 (0406). Another state government agency said that California is currently proposing requirements for triannual field exercises, with tabletop exercises in intervening years, and the agency views this frequency to be an appropriate balance of costs and benefits (0586). A third state government agency suggested that EPA should require semi-annual tabletop exercises (0490). An advocacy group urged EPA to require more frequent field exercises than the current proposed five-year frequency (0470). Another advocacy group stated that the frequency of exercises should be as short as practicable, providing an example that there may be loss of institutional knowledge during the proposed five years between field exercises (0507).

EPA Response: EPA disagrees that CAA section 112(r)(7) requires EPA to establish a requirement for more frequent exercises. EPA notes that CAA 112(r)(7)(B)(i) requires regulations to include "procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment." CAA 112(r)(7)(B)(ii) further requires the regulations to require owners and operators to prepare and implement a risk management plan that includes, among other things, "a response program providing for specific actions to be taken in response to an accidental release of a regulated substance so as to protect human health and the environment, including procedures for informing the public and local agencies responsible for responding to accidental releases, emergency health care, and employee training measures." This statutory language provides the Administrator with discretion to decide what components of an emergency response program are reasonable to

include in regulations. In the preamble to the proposed rule, EPA cited various accidents in which poor emergency response procedures contributed to the severity of the accident impacts (81 FR 13637, March 14, 2016). Therefore, EPA's believes adding an exercise component to the emergency response program requirements of the regulation will likely mitigate the effects of some accidents.

EPA also disagrees with commenters who recommended requiring field exercises more frequently than every five years. EPA notes that its own RIA for the NPRM projected the emergency response exercise provisions to be the costliest provision of the NPRM, and the Agency is concerned that a requirement for even more frequent field exercises could be prohibitively expensive for some facilities and local responders.

Regarding commenters' concerns about the potential that less frequent exercises may result in response personnel gaining less experience, and for personnel turnover to result in the loss of institutional knowledge and relationships between facility operators and community emergency responders, EPA shares such concerns, but must balance those concerns with the potentially higher burdens that more frequent exercises could place on facility response personnel and community responders. Also, EPA believes the annual emergency response coordination requirements of § 68.93 will foster strong ongoing relationships between facility personnel and local responders, and prevent the loss of institutional knowledge. Furthermore, the timeframes EPA is establishing in the final rule (i.e., field exercises must be performed at least once every ten years and tabletop exercises must be performed at least every three years) are minimum expectations, and we encourage owners and operators to establish schedules for more frequent exercises, in consultation with local officials, considering factors such as hazards, organizations (including facility personnel training needs and personnel turnover), budgets, resource demands, regulations, or other factors.

Recommendations for less frequent exercises

Comment: Many commenters, including industry trade associations, facilities, private citizens, an association of government agencies, and others opposed the proposed five-year frequency for field exercises and annual frequency for tabletop exercises. These commenters indicated that facilities and local authorities would find it difficult to conduct field exercises so frequently, that the requirement could potentially discourage local responder personnel from participating in exercises, and that the burden associated with such frequent exercises would be very high (0443, 0562, 0527, 0595, 0510, 0598, 0542, 0536, 0594, 0535, 0537). One commenter stated that the proposed requirements may be particularly challenging for small and medium-sized companies with limited resources (0560). Another commenter suggested that if EPA does require exercises, it should require a tabletop exercise every five years rather than a field exercise (0562). An industry trade association suggested that facilities be given the option to conduct either a field exercise every five years or annual tabletop exercises (0537).

Several commenters, including an association of government agencies, a local government agency, and industry trade associations, stated that the frequency of exercises should be determined by the facility, local responders, and community (0510, 0528, 0530, 0598, 0594, 0512, 0536, 0594, 0537). An industry trade association stated that EPA should provide additional flexibility to facilities in implementing these

requirements in order to recognize resource constraints (0527). Another industry trade association expressed concerns that over-exercising could lead to complacency (0537).

EPA Response: EPA agrees with most of these comments. While the Agency disagrees that conducting frequent exercises will lead to complacency, EPA's own projections in the RIA for the proposed rule indicated that exercises would be the costliest provision of the proposed rule, and in order to limit these costs, one alternative considered in the NPRM was to require only tabletop exercises. Additionally, the Agency is sympathetic to the concerns raised by emergency response officials and others that participation in exercises by local responders can be burdensome, particularly in smaller communities with volunteer responders and fewer response resources, as well as in communities where multiple RMP facilities are present – which would place proportionally greater demands on responders who desire to participate in the RMP facility exercises held within their jurisdiction. EPA is also mindful of the concerns raised by small business owners and their representatives both during the SBAR panel process and in comments submitted to EPA, who pointed out that exercises could potentially place a relatively larger burden on small businesses.

For these reasons, in the final rule EPA is modifying the provision for frequency of both field and tabletop exercises to allow sources and local responders to work together to establish an exercise frequency appropriate to their situation. However, as EPA continues to believe that both field and tabletop exercises are an important component of an emergency response program, the Agency does not believe any responding source should be allowed to reach an agreement that practically exempts the source from the exercise program requirements. This could happen if a source reached agreement with local responders to hold exercises at some extremely long periodicity. Therefore, the Agency is also establishing a minimum required exercise frequency of ten years for field exercises, and three years for tabletop exercises. The Agency believes even the smallest sources will be able to hold field exercises at least once each decade, and in many cases, EPA expects sources will hold field exercises more frequently. The Agency set the frequency for tabletop exercises to be more frequent than field exercises because tabletop exercises require less time and fewer resources to plan and conduct than field exercises, and therefore EPA believes sources will be able to perform tabletop exercises at least every three years.

Under the final rule, owners and operators will be required to coordinate with local responders to establish an exercise frequency that works for both organizations. In establishing the exercise frequency, owners or operators and local responders may account for whatever factors they deem appropriate. Owners or operators and local authorities may also adjust exercise frequencies as needed to account for changes in hazards, organizations, budgets, resource demands, regulations, or other factors, provided that field exercises occur at least every ten years, and tabletop exercises occur at least every three years. The agency notes that some RMP facilities may be subject to a more frequent schedule for exercises under other (e.g., state or local) regulations. In such cases, the owner or operator should comply with the more stringent exercise frequency requirement. By doing so, they will ensure that they also meet the required exercise frequency for the RMP exercise requirements.

3.2.2.5. Opposition to requiring local participation in exercises

Comment: Several commenters, including industry trade associations, a local government agency, facilities, and others, opposed requiring participation by local responders in exercises for reasons such as burden on local responders and inactivity of local responders (0529, 0570, 0573, 0598, 0562, 0594, 0587, 0435, 0450, 0453). A local government agency supported EPA's proposed approach and remarked that it may not always be practicable for local responders to participate due to the number of regulated facilities in each jurisdiction (0450). A few commenters, including industry trade associations, expressed concerns about potential enforcement actions resulting from local responder unavailability or asked that EPA specify that a facility will not be subject to a regulatory violation if an exercise cannot take place due to the unavailability of a local responder (0529, 0512, 0534, TRANS-10).

Several commenters, including industry trade associations and a facility, commended EPA for requiring facilities to invite local responders to participate in exercises but not requiring participation (0527, 0556, 0595). An industry trade association suggested that documentation of attempts by facilities to coordinate with local responders should be recognized by EPA due to the potential for local responder unavailability (TRANS-10). A facility suggested that EPA revise § 68.96(b)(2) to be more consistent with the wording of § 68.96(b), which requires facilities to invite local responders but does not require participation by local responders (0489). A state agency stated that exercise requirements appear to impose an unfunded mandate on first responders, emergency management, and LEPCs (0417).

> **EPA Response:** EPA generally agrees with these comments. The final rule will not require local responders to participate in exercises or exercise planning. In addition to coordinating with local response authorities to establish an exercise frequency, the final rule will also require the owner or operator to coordinate with local public emergency response officials when planning field and tabletop exercises, and to invite local responders to participate in exercises. EPA agrees with the many commenters who stated that any requirement for local responders to participate in planning or conducting exercises could in some cases overburden local response organizations or make it difficult for regulated facilities to timely meet the exercise requirements. EPA is aware of, and various public comments have noted, the fact that in the past some sources have been unable to locate local response organizations who are able or willing to perform such coordination activities. Therefore, while the final rule will require the owner or operator to coordinate with local public responders to establish field and tabletop exercise frequencies and plan exercises, and invite local emergency responders to participate in exercises, the final rule will not require local responders to participate in any of these activities.
>
> In most cases, the LEPC, fire department, or equivalent local emergency response authority would be the appropriate party for the owner or operator to conduct exercise planning and coordination with. EPA believes these local response authorities will usually be willing to perform emergency response coordination activities, including exercise coordination activities, with regulated sources. In many cases, EPA expects that exercise planning can be included as part of the annual coordination meetings required under § 68.93. In other cases, the owner or operator and local responders may choose to hold separate exercise planning meetings. EPA also understands that in some cases local responders may elect to limit their participation in exercise coordination activities because of limitations on their available time and resources. However, if the owner or operator is unable to identify a local emergency response organization with which to

coordinate field and tabletop exercise schedules and plans and participate in exercises, or the appropriate local response organizations are unable or unwilling to participate in these activities, then the owner or operator may unilaterally establish appropriate exercise frequencies and plans, and if necessary hold exercises without the participation of local responders. In these cases, the owner or operator must still ensure that field exercises occur at least every ten years, and tabletop exercises occur at least every three years. Additionally, the owner or operator should continue to make ongoing efforts to locate appropriate local public response officials for purposes of emergency response and exercise coordination and participation.

3.2.2.6. Rescheduling postponed exercises

Comment: Some commenters requested that EPA provide additional flexibility for facilities to adjust exercise schedules in the event that an exercise must be postponed. A facility stated that the proposed rule does not have flexibility to allow for rescheduling of exercises (0542). Several commenters, including a facility and an industry trade association, expressed that rescheduling field exercises can take a year or more and suggested that EPA clarify that facilities will not be held liable when field exercises are prevented by circumstances outside their control (0492, 0579). An industry trade association recommended that if an exercise must be postponed, it should be rescheduled within 90 days, and if the local response agency is unable to participate, the agency should be required to provide documentation stating the reason, and the facility should be allowed to conduct an internal field exercise without their participation (0528). Another industry trade association stated that if local responders postpone an exercise, facilities should conduct the exercise as soon as possible or be able to document the refusal of local emergency responders to participate (0476). A facility stated that facilities should not be penalized if there has been a documented effort to schedule an exercise within the required time period and the exercise was completed as soon as practicable after the time period expired (0560).

EPA Response: As EPA believes the final rule will provide the owner or operator with ample flexibility to establish and modify exercise schedules, EPA sees no reason to provide for additional extensions of time for conducting exercises in the event that local responders cannot participate, or if for some other reason the exercise must be rescheduled. EPA recommends that owners and operators and local response organizations take such contingencies into account when establishing exercise schedules, so there is still time to complete the field or tabletop exercise within the allotted timeframe (i.e., at least every ten years for field exercises and at least every three years for tabletop exercises) in the event the exercise must be postponed. Also, EPA notes that while the final rule will require the owner or operator to coordinate with local public responders to establish field and tabletop exercise frequencies and plan exercises, and invite local emergency responders to participate in exercises, the final rule will not require local responders to participate in any of these activities. Therefore, while EPA encourages local responders to participate in exercises, the owner or operator would not be required to reschedule an exercise if an emergency or another unanticipated circumstances prevent local responders from participating.

3.2.2.7. Exercise scope

Comment: A Federal Agency suggested that EPA develop guidance on conducting tabletop exercises (0428). A facility stated that field and tabletop drills need more clarification (0497). A facility commented that it would be difficult, if not impossible, for EPA to develop response scenarios that would

be applicable to the variety of types of facilities that are covered under the RMP rule (0569). An industry trade association requested clarification on the proposed language of "comprehensive test of all systems under the emergency exercise program for responding facilities" as it relates to EPA's proposed alternative to require annual field exercises (0528). A local agency stated that EPA should reconsider the mandatory scope of field exercises to allow some variation based on the needs and resources of the community (0530).

EPA Response: In the preamble to the proposed rule, EPA explained that field exercises involve the actual performance of emergency response functions during a simulated accidental release event. Field exercises involve mobilization of firefighters and/or hazardous materials response teams, activation of an incident command structure, deployment of response equipment, evacuation or sheltering of facility personnel as appropriate, and notification and mobilization of law enforcement, emergency medical, and other response personnel as determined by the scenario and the source's emergency response plan. Field exercises include tests of:

- Procedures for informing the public and the appropriate Federal, state, and local emergency response agencies about an accidental release;
- Procedures and measures for emergency response after an accidental release of a regulated substance, including evacuations and medical treatment;
- Communications systems;
- Mobilization of facility emergency response personnel, including contractors as appropriate;
- Coordination with local emergency responders;
- Equipment deployment; and
- Other actions identified in the source's emergency response plan, as appropriate.

Tabletop exercises are discussion-based exercises without the actual deployment of response equipment. During tabletop exercises, responders typically assemble in a meeting location and simulate procedural and communications steps for response to a simulated accidental release, as determined by the scenario and the source's emergency response plan. Tabletop exercises include tests of:

- Procedures for informing the public and the appropriate Federal, state, and local emergency response agencies about an accidental release;
- Procedures and measures for emergency response after an accidental release of a regulated substance, including evacuations and medical treatment;
- Identification of facility emergency response personnel and/or contractors and their responsibilities;
- Coordination with local emergency responders;
- Procedures for deploying emergency response equipment, and
- Other actions identified in the source's emergency response plan, as appropriate.

EPA believes these elements allow ample flexibility for the owner and operator, in consultation with local emergency response officials, to choose appropriate exercise scenarios. Involving local response officials in selecting exercise frequencies and in planning exercises should ensure that RMP facility exercises are consistent with the needs and resources of regulated facilities and local communities. By involving local public responders in the exercise scenario itself, responders may also be able to test or simulate important offsite emergency response actions that are usually managed

by local public emergency response officials, such as community notification, public evacuations, and sheltering in place, and EPA encourages sources and local response officials to design exercise scenarios where these functions are also tested. Responding stationary sources that rely on response contractors to perform emergency response functions during accidental releases should also ensure that response contractors participate in field and tabletop exercises.

3.2.2.8. Post-accident exercises

Comment: Several commenters opposed requiring a field exercise within one year of a reportable accident, or suggested alternative provisions. A few commenters, including a facility and an industry trade association, stated that the requirement to conduct a field exercise within a year of an RMP-reportable release is unreasonable and unworkable (0492, 0579). The industry trade association also stated that a reportable release does not suggest that the response to the release was inadequate (0579). A local agency suggested that EPA replace the requirement to conduct a field exercises within one year of any reportable event with a requirement to conduct an after-action review following a response to a reportable event (0530). A facility stated that the requirement would provide little to no value because responders would have just been on-site within the previous year (0535). An industry trade association stated that credit for field exercises should be given for actual deployment, and thus the requirement to conduct an exercise within one year of any accidental release should be revised (0536). Another industry trade association stated that the requirement to conduct a field exercise within one year of any reportable event should only be triggered if an accident occurred that either had off-site consequences or for which the incident report indicated had the potential for off-site consequences, adding that the majority of RMP-reported incidents have involved very small release of 10 lbs. or less of regulated substances (0551). A third industry trade association stated that any incident that triggers an emergency response should be deemed to satisfy all exercise requirements, consistent with EPA's approach in signing off on the recently updated National Preparedness for Response Exercise Program (PREP) (0594). A state government agency also suggested that EPA should only require a field exercise within one year of any reportable event that has off-site impacts (0490).

> **EPA Response:** EPA agrees with most of these comments, and therefore is not finalizing the requirement to conduct a field exercise within one year of an accidental release. Additionally, under the final rule, the owner or operator may meet requirements for notification, field, and/or tabletop exercises either through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96, as appropriate.

3.2.2.9. Other alternatives for meeting Risk Management Program exercise requirements

Comment: Several commenters indicated that RMP facilities are already required to conduct training drills and exercises under other Federal, state, or local requirements or in conjunction with a trade association membership code of practice, and that these exercises should satisfy EPA's proposed exercise requirements (0598, 0531, 0592, 0594, 0528, 0476, 0492, 0528, 0531, 0579). A mass mail campaign joined by approximately 30 commenters suggested that if EPA moves forward with an annual tabletop exercise requirement, EPA should allow facilities to take credit for exercises performed for purposes

other than RMP compliance (0562). An industry trade association suggested that facilities should be given credit for exercises required by other authorities (0537).

Commenters also urged EPA not to create exercise requirements that conflict with other authorities' exercise requirements. An industry trade association urged EPA to coordinate any rulemaking in this area with other federal agencies to ensure there is no redundancy in requirements (0556). Another industry trade association urged EPA not to create rules that are inconsistent with OSHA requirements and related requirements set by other agencies (e.g., by the DHS) (0598). A Federal Agency suggested that EPA revise the field exercise requirements to state that facilities must conduct field exercises every five years unless subject to another Federal, state, or local regulation with a more frequent schedule (0428). A facility commented that, if required, exercises should be managed under OSHA's regulation 29 CFR 1910.120(p)(8)(iv)(C) (0542). An industry trade association stated that EPA should harmonize requirements with 29 CFR 1910.120, subparts P and Q, instead of creating new drill and response requirements (0528). An industry trade association suggested that emergency response exercise requirements should not be addressed by RMP regulations and should instead by address by subchapter J, Part 355 – Emergency Planning and Notification (0536).

> **EPA Response:** EPA agrees with most of these comments. The Agency does not want to establish exercise requirements that conflict with other Federal, state, or local laws. Therefore, in the final rule, EPA is adding § 68.96(c) to describe alternative means of meeting exercise requirements. This section will allow the owner or operator to meet requirements for notification, field, and/or tabletop exercises either through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96, as appropriate.

3.2.2.10. Joint exercises

Comment: Several commenters recommended that EPA allow two or more nearby facilities to conduct joint exercises. An industry trade association stated that in instances where an owner/operator has multiple small, closely located RMP facilities protected by one emergency response organization, the team should not have to conduct a drill for each covered facility (0536). Another industry trade association stated that facilities participating in mutual aid organizations should participate in exercises together (0495). Another industry trade association stated that some facilities may not be able to conduct field exercises (e.g., facilities with one or two people) and that EPA should provide additional flexibility to facilities in conducting exercises in order to recognize the resource constraints of both facilities and local communities (0527). A facility stated that the field exercise requirement should not be removed, but flexibility should be allowed for mutual aid, joint exercises, etc. to reduce demands on local responders and burden on small and medium-sized enterprises (0560).

> **EPA Response:** EPA generally agrees with these comments, and encourages owners and operators of neighboring RMP facilities to consider planning and conducting joint exercises. However, sources that participate in joint exercises must ensure that their participation meets all of the provisions of 68.96, as appropriate. As commenters have noted, RMP facilities participating in mutual aid agreements with other nearby facilities already coordinate response actions and resources with those facilities, and EPA believes conducting joint exercises among

these facilities will more accurately simulate their behavior in the event of an actual release event, and further enhance the ability of these facilities and surrounding communities to effectively respond to accidental releases. Even where such mutual aid agreements are not currently in place, EPA believes the owners and operators of neighboring regulated facilities should consider whether joint facility exercises may have benefits for participating facilities, local responders, and surrounding communities. Such benefits could include improved identification and sharing of response resources, enhanced training for facility personnel and local responders, improvements in facility procedures and practices resulting from information sharing, and others. EPA also agrees that joint exercises may be particularly beneficial for small businesses. While the Agency believes that even small sources can design and conduct field and tabletop exercises that are appropriate to the size, hazards, and capabilities of the source, joint exercises involving multiple neighboring small sources would allow these sources to pool resources together in order to carry out more extensive exercise scenarios that could better simulate serious accidental release events. In areas where multiple RMP facilities are located close together, joint exercises could also reduce the overall burden of exercises on local response organizations, who might otherwise be asked to participate in multiple separate exercises.

3.2.2.11. Exercise documentation

Comment: Two commenters, including a facility and an industry trade association, commented that field exercise reports could take significantly longer than 90 days to prepare and suggested that the final rule allow for extensions to be granted where appropriate. These commenters also stated that requiring the report to include a list of names and associations of each exercise participant would create unnecessary burden (0492, 0579). These commenters, along with another industry trade association, also stated that requiring the owner or operator to make emergency exercise reports available to the public and LEPCs would raise security concerns (0492, 0579, 0544). An industry trade association commented that it is unclear how EPA will use exercise reports, and whether or not enforcement actions could result from review of reports (0544). Another industry trade association urged EPA to clarify the phrase "adequacy of coordination with local emergency response authorities, and other external responders" as it relates to exercise report documentation requirements (0587).

EPA Response: EPA is finalizing the exercise documentation requirements of § 68.96(b)(3) as proposed. EPA is also requiring in § 68.96(c)(2), documentation of a response to an accidental release in order for the response to be used to satisfy the RMP field exercise requirements. The owner or operator must prepare an after-action report comparable to (and in lieu of) the exercise evaluation report required in paragraph (b)(3), within 90 days of the incident, when the owner or operator uses the response to an accidental release to meet their field or tabletop exercise requirement. This provision is necessary because documenting the response to an accidental release may differ from documenting the results of an exercise. For example, instead of documenting the "exercise scenario," the owner or operator would document the nature of the accidental release prompting the response. Also, there may be additional aspects of the response to an accidental release that should be documented, such as any injuries, first aid and/or medical treatment that occurred. To the extent possible, the owner or operator should ensure that additional items such as these are documented in the after-action report, as well as information equivalent or comparable to that documented in an exercise evaluation report.

EPA disagrees with commenters who contend that 90 days is insufficient time to develop an exercise evaluation report (or after-action report), or that extensions of time should be granted for development of evaluation reports in certain circumstances. Unlike incident investigations, where report completion may require extensive and time-consuming evidence collection and forensic analysis, the basic elements required to be documented in an exercise evaluation report should be known relatively quickly after the conclusion of the exercise.

Regarding commenters concerns about the use of exercise evaluation reports in enforcement actions – in this respect, an exercise report is like any other record required to be developed under 40 CFR part 68. Whether or not an exercise evaluation report would be used in an EPA enforcement action would depend on the specific facts and circumstances of the case.

EPA disagrees that exercise evaluation reports should not contain the names and associations of exercise participants. Under the final rule, the frequency of both field and tabletop exercises will mainly be left to the discretion of the owner or operator and local response officials. In some cases, exercises may occur infrequently, and EPA believes that maintaining a written record including, among other things, the identification and affiliation of exercise participants will be useful in planning future exercises. EPA disagrees that collecting this information would be unduly burdensome. Owners and operators can collect this information using low-cost methods, such as sign-in sheets or registration websites. Local emergency response organizations participating in exercises will also likely be able to assist the owner or operator in collecting and providing this information.

EPA is not finalizing the requirements proposed in §§ 68.205 and 68.210 to make exercise reports available to local emergency response officials and the public. However, under § 68.93(b) of the final rule, the owner or operator must provide certain information to local emergency response officials in conjunction with annual emergency response coordination activities. This information includes the facility's emergency response plan if one exists, its emergency action plan, updated emergency contact information, and any other information that local emergency planning and response organizations identify as relevant to local emergency response planning. If local response officials identify the exercise reports as relevant to local emergency response planning, then the owner or operator must provide the information to local officials. EPA does not believe it is reasonable to withhold emergency response exercise reports from local emergency response officials based on security concerns if those reports are relevant to local community emergency planning, particularly as local emergency response officials – including, in some cases, local law enforcement officials – will often be direct participants in the exercises.

3.2.3. Other comments on exercise provisions

Comment: A commenter suggested that EPA should consider providing funding to support the participation of emergency responders in activities (0562).

EPA Response: EPA is not authorized to provide funding to local emergency responders for this purpose.

Comment: A few commenters, including industry trade associations and a facility, supported a flexible approach to emergency response plan implementation and training in which sources can tailor their plans and training to reflect local conditions, rather than EPA imposing a prescriptive approach to emergency response requirements (0537, 0495, 0523, 0598).

> **EPA Response:** EPA agrees with these comments. The final rule will provide owners and operators extensive flexibility to develop emergency response plans and emergency exercise plans that are best suited to the owner or operator's situation.

Comment: An industry trade association stated that the proposed emergency response and coordination requirements would be duplicative of other safety programs, raise substantial feasibility concerns, and inappropriately task regulated facilities with public emergency responder roles (0598).

> **EPA Response:** EPA disagrees that the emergency response coordination, emergency response program, and emergency response exercise provisions of the final rule are fully duplicated in any other safety program applicable to all RMP-regulated facilities. EPA acknowledges that certain aspects of the final rule's requirements may appear in other regulations that cover limited subsets of regulated facilities. For example, RMP facilities in New Jersey are already subject to exercise requirements under the NJ TCPA. If a regulated source is already subject to another requirement that duplicates a requirement found in the final rule, the source may use its compliance with that other requirement to demonstrate compliance with the equivalent requirement in part 68. EPA is addressing commenters' concerns with the feasibility of the proposed emergency response requirements by substantially modifying the requirements from the proposed rule. In the final rule, EPA is removing the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and would have required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities. EPA is also reducing the minimum required frequency for field and tabletop exercises, and is allowing sources additional flexibility in meeting the exercise requirements by allowing joint exercises, and by allowing the owner or operator to meet exercise requirements through exercises conducted to meet other federal, state, or local exercise requirements (or under a facility's industry code of practice or another voluntary program) or by responding to an actual accidental release event, provided the exercise or response includes the actions required for exercises under § 68.96. EPA does not believe any provisions of the final rule inappropriately task regulated facilities with public emergency responder roles.

Comment: A local government agency provided several suggestions for exercise practices (0545):

- A qualified person should be responsible for ensuring the exercise methodology is followed;
- After-exercise close out meetings of "lessons learned" should be considered;
- Processes maintained by contractors should be included in exercises;
- Methodologies should be developed for exercises for specific types of processes and regulated substances for consistency; and
- For new or modified processes, exercise training should be required before finalization of the project and the addition of the regulated substances over the threshold quantity to the covered processes.

EPA Response: EPA appreciates the commenter's suggestions. However, the Agency is not specifying such prescriptive requirements for exercises in order to provide flexibility to owners and operators, in consultation with local responders, to develop exercise plans and procedures that are most effective for the source and its surrounding community. EPA agrees that some of these suggestions (e.g., assigning specific personnel to ensure exercise scenario is followed and conducting lessons-learned meetings following exercises) are typical features of many exercises, and that most sources will incorporate these elements into their exercise program without any specific requirement to do so. EPA disagrees, however, that the Agency should develop exercise methods or scenarios for specific types of processes or substances. The very wide range of different process types and substances regulated under the RMP rule would make this task infeasible for the Agency. Also, EPA believes owners and operators and local authorities are better positioned to develop exercise methods and scenarios that are most appropriate for the facility and community.

4. Information Availability Requirements

4.1. Disclosure requirements to local emergency planning committees or emergency response officials

4.1.1. General comments supporting or opposing Environmental Protection Agency's proposed changes

Comment: Several commenters provided general support for the proposed requirement, stating that information regarding chemical hazards and potential risks could help LEPCs and emergency response entities adequately and efficiently respond to incidents (0428, 0473, 0490, 0507, 0510, 0519, 0554, 0586, TRANS-09, 0434). However, multiple commenters, including professionals, state agencies, facilities, and trade associations, noted that the information required under the provision is already available to LEPCs through the EPCRA or already reported in the Risk Management Plan (RMP) (0484, National Association of Chemical Distributors, 0495, 0598, 0504, 0517, 0538, 0544, 0555, 0561, 0587, 0487).

Of those commenters that did not support the proposed requirements, several stated that EPA provided no data supporting the Agency's concern that some LEPCs were not receiving the information they needed to develop local emergency response plans. These commenters pointed to EPA's 2008 National Survey of LEPCs which did not reveal any concerns about RMP facilities withholding information from LEPCs. According to these commenters, LEPCs indicated in the survey that they were able to obtain RMP data from EPA, the state, or RMP facilities and noted their greatest obstacle was lack of funding. In addition, commenters pointed out that the EO 13650 Working Group report, Actions to Improve Chemical Facility Safety and Security – A Shared Commitment, May 2014 contains no findings about facilities ignoring LEPC requests for information or that lack of information provided to the LEPCs was an issue, but rather the report stated that LEPCs had concerns about managing all of the information provided under various laws and regulations, understanding how each chemical is regulated, and how to properly respond to an emergency involving specific chemicals. In addition, these commenters stated that while some CSB investigations, highlighted a lack of emergency preparedness and recommended strengthening local infrastructures supporting LEPCs, they did not find that facilities refused to cooperate with the community or withheld chemical information from LEPCs (0492, 0579).

An industry trade association commented that communication between LEPCs and facilities is satisfactory and stated that LEPCs were able to obtain RMP data from facilities before the proposed provision (0579). A facility requested the EPA refocus efforts into collecting required data from "outlier facilities who are not providing required chemical hazard information" rather than impose a requirement for duplicative data (0595).

Many commenters also asserted that the scope of information required by the provision was too broad in subject matter, arguing that incident investigation summaries, compliance audit summaries, and IST or ISD implementation summaries do not provide useful information for emergency planning and the information requirements of the provision were unnecessarily detailed (0581, 0579, 0567, 0584, 0594, 0462, 0492, 0524, 0530, 0536). An advocacy group stated clear language should be provided by EPA to facilities regarding the hazard and emergency planning information required to be disclosed to LEPCs (0467).

Multiple commenters raised concerns about the security of information provided to LEPCs. These commenters indicated that there are multiple ways for the public to access sensitive information from LEPCs through individual information requests (0598, 0544, 0589, 0594, 0467). Commenters also stated that LEPCs do not have the necessary security protocols to secure sensitive or potentially dangerous information from terrorism threats (0492, 0495, 0504, 0462, 0526, 0537, 0560, 0565, 0566, 0579). Commenters also suggested that disclosure requirements interfered with Department of Homeland Security's (DHS) CFATS (0491, 0492, 0496, 0508, 0537, 0542, 0584, 0587). An industry trade associations and a facility requested that coordination between appropriate Federal agencies such as DHS and the Federal Bureau of Investigation (FBI) in regards to managing potentially dangerous chemical facility information be conducted before the rule is promulgated (0579, 0594, 0461, 0462).

Several industry trade associations and a Federal agency commented that the information requirement was overly burdensome for under-funded and resource-strapped LEPCs and may lead to under-reporting (0536, 0476, 0504, 0523, 0527, 0528, 0537, 0551, 0555, 0428).

A few commenters suggested that EPA issue guidance to LEPCs on where and how to request information instead of relying on facilities to provide the necessary information (0428, 0555). Other commenters suggested that facilities only report incidents that had offsite impacts or that would be required to be reported in the RMP and that information including safer technology alternative analyses (STAA), compliance audits, and incident investigations should be maintained at the stationary source and available upon request (0450, 0452, 0453, 0490,0537, 0587, 0589, 0592). A private citizen also requested a change in language to clarify the incident investigation and root cause information required and raised multiple questions regarding the flow of information from chemical facilities (0467). Another commenter requested that LEPCs have access to information across jurisdictional lines (0470).

Many commenters, including a mass mail campaign joined by approximately 17,250 commenters, concluded that an easily-accessible, streamlined website format would be an appropriate format for information to be shared with local emergency response officials (0467, 0507, TRANS-12, 0427, 0480, 0434, 0591). An industry trade association suggested that information should not be in electronic format but should be communicated to LEPCs, local emergency officers, neighbor groups, and Community Advisory Panels at regular intervals (0495). Another commenter proposed that the information be relayed during an annual meeting between LEPCs and the facility (0537).

A Federal agency suggested that original documents should still be required to be provided to LEPCs or local emergency response officials (0428).

A couple state agencies commented that RMP information should be incorporated into existing management systems and that providing information in a stand-alone single document was of little value to emergency planners (0452, 0490). A few commenters suggested that the format of the information should be determined by the LEPC individually (0452, 0490, 0523).

A Federal agency and a couple industry trade associations asserted that the information should be provided in a one-page summary of each chemical, its properties, location, and firefighting measures (0502, 0527, 0537, 0565).

> **EPA Response:** In response to these comments, EPA maintains that it is very important to ensure that LEPCs or local emergency response officials have the chemical information necessary for developing local emergency response plans, however, EPA believes it is not necessary to specify in the RMP rule the types or format of information that LEPCs or emergency response officials may request. EPCRA section 303(d)(3) already provides the necessary authority to allow LEPCs to request information needed to develop the local emergency response plan. Additionally, EPCRA requires facilities to provide SDSs and inventory information to LEPCs to assist emergency planners and responders. Under EPCRA section 312(f), fire departments have the authority to inspect these facilities to better understand the risk associated with these chemicals and how to deal with those risk in the local emergency response plan.
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> As pointed out by the commenters, the proposed requirements could be perceived as limiting the flexibility of LEPCs and emergency response officials to collect the information they need to develop a local emergency response plan that addresses their community's specific chemical risks. Furthermore, the proposed requirements would have had owners or operators preparing information summaries on an annual basis, regardless of whether the LEPC requests the information, and EPA agrees that this is overly burdensome for facility owners and operators. This could also result in reports being sent to the LEPCs or emergency response officials without the necessary context to help officials to understand the information contained within the reports and utilize it for planning purposes.
>
> EPA acknowledges the security concerns that commenters expressed and recognizes the challenges associated with securing sensitive information. Therefore, EPA has decided not to finalize § 68.205 of the proposed rule, and is instead adding language to the emergency response coordination provisions of § 68.93 which requires the owner or operator to provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."
>
> EPA agrees with commenters that this approach will allow LEPCs and other local emergency officials to obtain the information they require to meet their emergency response planning needs. It will also allow local emergency planners and response officials to ask questions of facility personnel about the risks associated with the chemical hazards at the facility and about appropriate mitigation and response techniques to use in the event of a chemical release. It further allows the facility owner or operator and the LEPC to identify information that may need

to be maintained securely and discuss strategies to secure the information or to provide only information that is pertinent to emergency response planning without revealing security vulnerabilities.

The LEPC or local emergency response officials may request information such as accident histories, portions of compliance audit reports relevant to emergency response planning, incident investigation reports, records of notification exercises, or field and tabletop exercise evaluation reports. Furthermore, EPA directs commenters who indicated that the IST analyses should apply to all facilities and be submitted to the public to refer to section IV.C Safer Technology and Alternatives Analysis (STAA) and section VI.B Information Availability to the Public.

4.1.2. Recommendations on submission dates and updates provision

Comment: Many commenters remarked that information should be provided only after facilities receive a request from a LEPC or emergency response official (0502, 0510, 0528, 0544, 0550, 0555, 0587, 0594). Some of these commenters, including industry trade associations, provided 30 days as a time frame in which facilities must produce information for a LEPC (0544, 0555).

EPA Response: EPA agrees with these commenters and has decided not to finalize § 68.205 of the proposed rule, and is instead adding language to the emergency response coordination provisions of § 68.93 which requires the owner or operator to provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."

Comment: A private citizen requested that information be provided to LEPCs on an annual basis (0403) while an advocacy group stated that facilities should be required to produce quarterly reports for LEPCs (0507). Another commenter suggested that EPA should require immediate reporting of accidental releases (0519). A Federal agency and an advocacy group asserted that it was not the LEPCs responsibility to request information and that information should be provided to LEPCs by facilities without a request (0428, 0543).

EPA Response: EPA disagrees with these commenters. EPCRA section 303(d)(3) already provides the necessary authority to allow LEPCs to request information needed to develop the local emergency response plan. Additionally, EPCRA requires facilities to provide SDSs and inventory information to LEPCs to assist emergency planners and responders. The proposed requirements could be perceived as limiting the flexibility of LEPCs and emergency response officials to collect the information they need to develop a local emergency response plan that addresses their community's specific chemical risks. Furthermore, the proposed requirements would have had owners or operators preparing information summaries on an annual basis, regardless of whether the LEPC requests the information, and EPA agrees that this is overly burdensome for facility owners and operators. This could have also resulted in reports being sent to the LEPCs or emergency response officials without the necessary context to help officials to understand the information contained within the reports and utilize it for planning purposes.

4.1.3. Classified information

Comment: A state agency requested that sensitive information be kept at a stationary source (0453). An industry trade association asserted that the scope of information provided would be too broad and "may lead to the inadvertent disclosure of confidential information" (0581).

> **EPA Response:** EPA acknowledges the security concerns expressed by commenters and recognizes the challenges associated with securing sensitive information. Therefore, EPA has decided not to finalize § 68.205 of the proposed rule, and is instead adding language to the emergency response coordination provisions of § 68.93 which requires the owner or operator to provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."

4.1.4. Confidential business information

Comment: Several commenters expressed disagreement with the proposed provision, arguing that releasing the required information to LEPCs would put CBI at risk (0458, 0462, 0484, 0598, 0550, 0561, 0587). Many of these commenters stated that LEPCs do not have adequate security measures to protect CBI and that LEPCs are obligated to share information with the public (0461, 0462, 0598, 0579).

A few commenters also cited concerns about the potential release of CBI under EPCRA by LEPCs and suggested further clarification on the applicability of EPCRA CBI rules and the relationship between the two provisions (0561, 0587, 0510). An advocacy organization stated that safety procedures and systems did not qualify as CBI and therefore should be required to be released to LEPCs (0466). Finally, a facility and an industry trade association concluded that CBI claims were time-consuming and would place additional burdens on industry (0484, 0587).

> **EPA Response:** EPA acknowledges the security concerns expressed by commenters and recognizes the challenges associated with securing sensitive information. Therefore, EPA has decided not to finalize § 68.205 of the proposed rule, and is instead adding language to the emergency response coordination provisions of § 68.93 which requires the owner or operator to provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."

4.1.5. Other comments on requirements for information availability to local emergency planning committees or emergency response officials

Comment: A professional organization and a private citizen remarked that LEPCs would not be a useful entity to provide information to and questioned the capability of LEPCs to respond to the new expanded role created by the proposed provision in light of funding and federal oversight concerns (0360, 0555, 0333).

> **EPA Response:** EPA maintains that it is very important to ensure that LEPCs or local emergency response officials have the chemical information necessary for developing local emergency response plans as required under EPCRA, however, EPA believes it is not necessary to specify in the RMP rule the types or format of information that LEPCs or emergency response officials may request. Therefore, EPA has decided not to finalize § 68.205 of the proposed rule, and is instead adding language to the emergency response coordination provisions of § 68.93

which requires the owner or operator to provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."

4.2. Information availability to the public

4.2.1. Legal comments against and other legal suggestions for information availability to the public

Comment: An industry trade association and a facility stated that legislation subsequent to the CAA narrowed EPA's authority to mandate public disclosure of RMP information. Relevant legislation described by the commenters includes (1) the 1999 CSISSFRRA, (2) the CIIA, (3) The Chemical Facilities Anti-Terrorism Standards Act of 2007, and (4) the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014.

Another industry trade association commented that requiring private companies to publish qualitative or quantitative environmental information inappropriately seeks to delegate EPA's own duties to communicate with and deal with public requests to the regulated entity.

A few industry trade associations argued that the proposed information disclosure requirements are compelled speech that may violate the first amendment. An industry trade association commented that EPA's proposal to require disclosure of RMP information and chemical hazard information raises constitutional issues, as it amounts to compelled commercial speech. The commenter described compelled commercial speech as subject to an intermediate-level of scrutiny, and asserted that, unless EPA can affirmatively prove that (1) its asserted interest is substantial, (2) the speech regulation directly and materially advances that interest, and (3) the regulation is narrowly tailored to that interest, then the compelled commercial speech will likely be found to be unconstitutional.

EPA Response: The information disclosures that will be required by the final rule are fully consistent with the statutes and regulatory programs identified by the commenters as enacted after the 1990 CAA Amendments. CSISSFRRA specified that portions of RMPs containing "offsite consequence analysis information" (OCA Information), any electronic data base created from those portions, and any statewide or national ranking derived from such information is subject to restrictions on disclosure (CAA 112(r)(7)(H)(i)(III) and 112(r)(7)(H)(v)). Regulations promulgated jointly by EPA and the Department of Justice further define OCA Information in 40 CFR 1400.2(j). The final rule will not require disclosure of release scenarios or rankings based on such scenarios, nor will it make available any information based on such scenarios. The CIIA restricts information "not customarily in the public domain." CFATS creates a category of information, Chemical-terrorism Vulnerability Information (CVI), which further restricts certain information generated to implement CFATS (see 6 CFR 27.400). In promulgating CFATS, DHS announced its intent to preserve Federal release disclosure, emergency planning, and accident prevention statutes, including EPCRA and CAA 112(r) (72 Fed. Reg. 17714, April 9, 2007). In this final rule, EPA has not promulgated the new mandatory disclosure of STAA and incident investigation information that we had proposed, thereby eliminating the tension between these after-enacted programs and modernization of the RMP. The information that will be required to be disclosed by this rule largely draws on information otherwise in the public domain and simplifies the public's access to it.

This final rule will require an owner or operator of a stationary source to alert the public, via any one of a wide variety of methods, of how to access information about the source that is publicly available. Other statutes and regulatory programs, or other provisions of the RMP, require the stationary source to assemble the information that the rule would make available upon request (e.g., accident history, SDSs, and aspects of the emergency response program). The burden of making this information directly available from the source is minimal. The public's ability to participate in emergency planning and readiness is enhanced by being better informed about accident history, types of chemicals present, and how to interact with the stationary source. EPA has been selective in identifying what information a source must make available; for example, we have not required the facility to provide an RMP to the public. Having the source provide the information set out in § 68.210 directly to the public promotes accident prevention by facilitating public participation at the local level.

4.2.2. Chemical hazard information (§ 68.210(a))

4.2.2.1. Comments on whether chemical hazard information should be made available to the public

Comment:

Support for making chemical hazard information available to the public

A private citizen commented in support of the proposed provision in order to strengthen the community's "right to know" (0403). Other commenters, including a mass mail campaign joined by approximately 450 commenters, also provided general support for the disclosure of information to the public (0428, 0408, 0577, 0586, 0591).

Objections and other suggestions for making chemical hazard information available to the public

Multiple commenters, including state agencies, facilities, and industry trade associations, argued that the proposed public disclosure of information would create a security risk (0433, 0435, 0440, 0452, 0458, 0461, 0490, 0463, 0465, 0475). Several commenters expressed opposition to the proposed provision because it appeared to conflict with CFATS or other previously promulgated protections of secure information (0417, 0435, 0458, 0484, 0598, 0500, 0528, 0537, 0538, 0542, 0571).

A state agency and an industry trade association remarked that off-site consequence analysis data remain accessible to the public only through Federal reading rooms (0417, 0558) but an advocacy group remarked that keeping information in reading rooms would limit access from the public (0467). A private citizen reasoned that 911 centers were the appropriate entity to handle publically available information (0459).

Some commenters stated that the information requirement covered documents already available through EPCRA or other means such as Freedom of Information Act (FOIA) requests (0487, 0494, 0598, 0504, 0508, 0512, 0524, 0528, 0584, 0595). Many commenters stated that EPA had not given enough reasoning for how the increase in information disclosure to the public would result in a safer community in proportion to the burdens imposed on facilities (0567, 0594, 0482, 0492, 0598, 0536, 0556).

EPA Response: EPA continues to believe that providing chemical hazard information to the general public will allow people that live or work near a regulated facility to improve their

awareness of risks to the community and to be prepared to protect themselves in the event of an accidental release. EPA believes that this information should be more easily accessible to the public than the existing approaches to access information under EPCRA or through FOIA requests. However, EPA acknowledges the security concerns raised by commenters and is committed to ensuring a balance between making information available to the public and safeguarding that information. Therefore, EPA is finalizing an approach that requires facility owners and operators to notify the public that certain information is available upon request. This allows community members an opportunity to request chemical hazard information from a facility, so they can take measures to protect themselves in the event of an accidental release, while allowing facility owners and operators to identify who is requesting the information. EPA believes that this approach is consistent with existing requirements to secure sensitive information under CSISSFRRA and CFATS. Furthermore, EPA is committed to safeguarding OCA information in accordance with requirements specified in CSISSFRRA which allows for any member of the public to access paper copies of OCA information for a limited number of facilities. This OCA information remains accessible to the public only in Federal Reading rooms.

EPA believes that the current approach to notify the public that information is available upon request strikes an appropriate balance between various concerns, including information availability, community right-to-know, minimizing facility burden, and minimizing information security risks.

4.2.2.2. Comments and suggestions on changing scope of information to be shared

Comment: An advocacy group commented that information on chemical hazards, alternatives and incidents on city, county, state, and national level, inspections, and training support should all be made publically available (0506, 0574). A private citizen and a few state agencies remarked that the public should be given information on types of emergency response drills performed and when, how to adequately protect oneself during a release, where to evacuate, how the decision to evacuate will be made and communicated, and how the all-clear signal will be given (0450, 0443, 0453).

A few industry trade associations stated that only information that could improve community awareness of risks should be included in disclosure, such as names of regulated substances held in a process above threshold quantities, name and phone numbers of local emergency response organizations, and LEPC contact information (0528, 0544).

Many commenters, including multiple mass mail campaigns joined by approximately 24,610 commenters suggested that facilities disclose STAA (0371, 0334, 0360, 0450, 0453, 0470, 0603, 0578, 0597, 0507). However, industry trade associations requested STAA not be required in the provision or if mandated, EPA should provide significant clarifications to applicability (0462, 0555). A few industry trade associations and a facility stated that compliance report summaries and IST analysis should not be made publically available (0476, 0482, 0536).

Other commenters stated incident investigation reports should be included in the scope of information delivered to the general public (0333, 0329, 0434, 0586). A state agency requested that incident investigation reports be limited to those that requiring reporting to the RMP (0450). Industry trade associations reasoned that root cause analysis should not be available because it could increase the

number of lawsuits brought against facilities (0493, 0581, 0584). Another commenter stated that publically releasing root cause analysis would discourage facilities from performing meaningful analyses (0581, 0584, 0551). A state agency reasoned that root cause analysis should be included in public disclosure to better inform the public (0586).

A state agency commented that third-party audits should be included to increase the public's confidence in a facility (0586). An industry trade association stated that submitted draft third-party audit reports to the public would increase confusion and divert resources from the completion of the report (0587). A commenter stated that the RMP and accompanying chemical hazard information would be valuable to communities in order to understand the risks involved (0510). An industry trade association argued that emergency contact information should not be shared publically online because it will open the lines to telemarketing and spam (0524).

EPA Response: EPA agrees with commenters that suggested only information that could improve community awareness of risks should be made available to the public. EPA disagrees with commenters that suggested making additional information available to the public, such as STAA reports, incident investigation reports (with root cause analyses), and third-party audit reports. Much of the information in these reports can be technically complicated and may not be understood by the general public. Furthermore, this information is not always relevant to community emergency preparedness and could potentially reveal CBI or security vulnerabilities. Therefore, the Agency is finalizing the following chemical hazard information elements to be made available to the public, upon request:

- Names of regulated substances held in a process;
- SDSs for all regulated substances located at the facility;
- Five-year accident history information required to be reported under § 68.42;
- The following summary information concerning the source's compliance with § 68.10(f)(3) or the emergency response provisions of subpart E:
    - Whether the source is a responding stationary source or a non-responding stationary source;
    - Name and phone number of local emergency response organizations with which the owner or operator last coordinated emergency response efforts, pursuant to § 68.180; and
    - For responding stationary sources (i.e., those subject to § 68.95), procedures for informing the public and local emergency response agencies about accidental releases;
- A list of scheduled exercises required under § 68.96; and
- LEPC contact information, including the LEPC name, phone number, and web address as available.

EPA expects that making the information available upon request will minimize security vulnerabilities as well as unwanted telemarketing and email spam and solicitations.

EPA agrees with commenters that members of the public do not necessarily need access to exercise evaluation reports. Therefore, to address concerns that summary information of facility exercise may be confusing to the public and could reveal security vulnerabilities, EPA is revising

§ 68.210(b)(5) to remove the requirement to provide summary information about exercises and only require a list of scheduled exercises required under § 68.96. EPA believes that one benefit of sharing exercise schedules is to avoid unnecessary public alarm when exercises are conducted. However, EPA expects that facility owners and operators will use good security practices when revealing details about upcoming exercises.

4.2.3. Notification of availability of information (§ 68.210(c))

Comment:

Support of notification of availability of information

Many commenters, including mass mail campaigns joined by approximately 17,390 commenters, stated support for the use of a stream-lined, one-stop web format for the dissemination of public information (0519, 0575, 0427, 0434, 0467, 0480, 0507, 0586, 0591).

Objections to notification of availability of information

Several commenters expressed opposition to the suggestion that facilities post information for public use on facility websites (0435, 0465, 0598, 0527, 0524, 0528, 0537, 0595, 0538, 0550). Some commenters argued that EPA should utilize existing online resources of public information on the Agency's website or through alternate publically available databases such as ECHO (0476, 0502, 0517, 0521, 0552, 0562, 0589, 0423, 0592, 0591). A few commenters concluded that appropriate state level agencies should be responsible for the availability of public information (0490, 0562).

Other comments on notification of availability of information

Many other commenters remarked on the patchwork of options to disseminate information provided by EPA, including local libraries, government buildings, or the internet, and stated that this fragmented approach does not improve public access to information (TRANS-09, TRANS-19, 0329 PC, 0333, 0334 PC, 0467, 0574). An advocacy group cited that EPA should ensure availability of information to those without internet or media access (0507, 0574). A private citizen stated that hard copies should still be made available in conjunction with published information on an EPA website for those without access to web resources (0403). An industry trade association remarked that information should be made available only after an email request made directly to the facility (0528). An environmental advocacy coalition of approximately 140 commenters stated STAA information should be made available both on and offline (0575). A private citizen remarked that information should be available through public hearings, newspaper, and email notices (0591). An advocacy group commented that information on releases should be reported to the public through internet, radio, telephone, and television while information on STAA or deregistration from the RMP program could be issued in an annual report (0507).

A state agency asserted a two-page summary of information would be sufficient for the public (0450) while a facility stated that a one-page summary would be sufficient (0560).

> **EPA Response:** EPA is committed to ensuring that chemical hazard information is available to the public in an easily accessible manner; however, the Agency acknowledges commenters' security concerns associated with providing information to the public and the additional burden that may fall on owners or operators that do not have websites or other means to publicly and routinely post such information. In response to these concerns, EPA is requiring that owners and operators notify the public that certain information is available along with instructions on how to request the information. The facility owner or operator must provide ongoing notification that such information is available upon request and the notification must be made through publicly accessible means, such as a website or social media platform.
>
> The facility owner or operator can notify the public that information is available in a variety of ways. For example, the owner or operator could make the notification of information availability by using free or low cost internet platforms, file sharing services, and social media tools that are designed to be able to share information with the public. As another option, the facility could post hard copy notices at publicly accessible locations, such as at a public library, or a local government office. If the facility has the means to handle public visitors, it could choose to have notices available at the facility's public visitor location. The facility could also provide notices that information is available to the public by email. EPA encourages the facility owner or operator to coordinate information distribution with the LEPC or local emergency response officials to determine the best way to reach public stakeholders. The owner or operator shall document whatever method and the location of the notification in the RMP pursuant to § 68.160(b)(21).
>
> EPA believes that providing this notification to the general public would allow people that live or work near a regulated facility to gather the information they need to improve their awareness of risks to the community and to prepare to protect themselves in the event of an accidental release. The notice shall specify what information is available and provide instructions for how to obtain the information. The facility owner or operator shall also identify where to access information on community preparedness, if available, including shelter-in-place and evacuation procedures. The facility should work with the LEPC and local emergency responders to distribute and convey relevant information on appropriate shelter-in-place and evacuation procedures.

4.2.4. Timeframe to provide information following a request (§ 68.210(d))

Comment: A state agency commented that requiring publicly disclosed information be updated continually would be a burden to facilities and unnecessary (0473). In contrast, a facility reasoned that the public should not have to request information (0552). An advocacy group requested that reports to the public be made on an annual basis (0507).

> **EPA Response:** While EPA agrees that requiring facilities to annually update their information could be unnecessarily time-consuming, EPA encourages facilities to update their chemical hazard information as needed to ensure that accurate information can be made available to the requester within the required timeframe. Therefore, § 68.210(d) will require that the facility

owner or operator provide the information under § 68.210(b) to the requester within 45 days of receiving a request. EPA selected 45 days because that timeframe is consistent with the requirement for public provision of facility chemical inventory information (i.e., "Tier II information") under § 312(e)(3)(D) of EPCRA, which states, "a State emergency response commission or LEPC shall respond to a request for Tier II information under this paragraph no later than 45 days after the date of receipt of the request."

4.2.5. Confidential business information

4.2.5.1. Objections and other suggestions on confidential business information related to public information availability

Comment: Several commenters stated that the public disclosure and notification requirements would place CBI at risk, despite language to guard CBI and therefore, the EPA should eliminate this requirement (0435, 0458, 0484, 0492, 0494, 0598, 0522, 0528, 0538, 0550). Some commenters requested that EPA clarify that CBI would still be protected from public dissemination, even under the EPCRA (0561, 0587).

Many commenters requested that EPA issue guidance on information in STAA reports that could not be claimed as CBI or require up front substantiation of secrecy claims (0519, 0575). Suggestions for requirements of CBI claims included the certification of CBI by an owner, operator, or senior official or illustration that disclosing the information would reveal directly CBI (0575). Some commenters urged that entire STAA reports should not be claimed as CBI (0470, 0575).

A couple commenters stated that it may not be practical or possible to provide the public with a useful document after removing appropriate CBI (0594, 0550).

EPA Response: EPA is finalizing § 68.210(f) relating to CBI as proposed, but renumbered the paragraph as § 68.210(g). EPA acknowledges and shares industry's concerns pertaining to protection of CBI information, but EPA believes that we have addressed these concerns by providing the same CBI protections for the public information availability provisions that exist for the RMP under §§ 68.151 and 68.152 for information contained in the RMP required under subpart G. As provided under 40 CFR 68.151(b)(3), an owner or operator of a stationary source may not claim five-year accident history information as CBI. As provided in 40 CFR 68.151(c)(2), an owner or operator of a stationary source asserting that a chemical name is CBI shall provide a generic category or class name as a substitute. CBI disclosure under EPCRA is controlled by that statute and rules implementing the information access provisions of EPCRA. Furthermore, EPA is not requiring STAA reports to be submitted to LEPCs or the public in the final rule and therefore, no CBI concerns exist for these reports.

If an owner or operator has already claimed CBI for a portion of the RMP, then that claim still applies for the disclosure elements the information availability provisions of the rule. The owner or operator should provide a sanitized version as described in the RMP*eSubmit User's Manual. This policy is consistent with existing guidance and practices.

4.2.5.2. Additional comments and suggestions related to public information availability

Comment: An advocacy group suggested an appeal process be established so community members and stakeholders could petition the EPA if required information was not provided by facilities in a timely and effective manner (0507).

> **EPA Response:** An appeal process is not necessary because the requester could contact the EPA Regional Office to request assistance if they don't receive requested information within the specified 45-day response timeframe.

Comment: An industry trade association commented that the information and notification requirements could be counter-productive during an actual emergency response (0598).

> **EPA Response:** EPA recognizes the commenter's concern, and has identified a process to allow for a response to a RFI within 45 days of an emergency. EPA has not revised or changed the notification requirements, and we still expect the facility to contact the National Response Center (NRC) concerning a reportable release in a timely manner.

Comment: A group of professionals provided an alternative option to limit the requirement to specific NAICS identifiers in order to exclude water and wastewater treatment facilities (0423).

> **EPA Response:** EPA disagrees. It is not appropriate to limit requirements to specific NAICS identifiers to exclude water and wastewater treatment facilities because the risks associated with the chemicals at those facilities are just as important as the other facilities regulated under the RMP and the public should have access to appropriate chemical information from all RMP facilities in order to make informed risk decisions.

4.3. Public meetings

4.3.1. Objection to and other suggestions for attendance at public meetings

Comment: Some commenters expressed opposition to the proposed requirement, questioning the benefit and practicality of such a meeting if the facility is in compliance or if no reportable incident has occurred (0475, 0527, 0535, 0536, 0555, 0562, 0595). A facility argued that LEPCs already hold public meetings and so the requirement for a facility to hold them after a release would be redundant (0492). Some commenters cited the burden placed on facilities to schedule and prepare for a meeting (0560), especially directly after a release when resources were already being directed to incident investigations and other post-incident procedures (0565, 0581, 0579, 0594). Some commenters stated general support for the requirement to hold public meetings after a release (0403, 0507, 0574, 0586).

Several commenters suggested that in the past, public meetings were sparsely attended by the public and it was burdensome for facilities to expend resources preparing for meetings that had low public participation (0482, 0465, 0492, 0497, 0598, 0521, 0530, 0560, 0562, 0579). An industry trade association stated that a public meeting would not be necessary after an accident as the public will have been notified of the accident through local media (0544). A facility commented that the public would not attend a meeting for a minor incident but for an event with major offsite impacts should include a report summarizing the incident (0542).

Some commenters remarked that the proposed provision was unspecific and it was difficult to comment without more information about the requirement (0461, 0462). A few state agencies stated that the EPA should publish more information about the requirements to notify the public of upcoming meetings (0446, 0589). A facility suggested that polls could be used to prescreen members of the public who would like to attend or participate in the public meeting in order to establish effective participation (0552).

> **EPA Response:** EPA recognizes concerns about attendance at public meetings. When the CSISSFRRA was enacted in 1999, it required owners or operators of all facilities regulated under the RMP rule to hold a public meeting within 180 days of enactment.[79] The purpose of the public meeting was to discuss the OCA information that was restricted under other portions of CSISSFRRA. Relatively few of these meetings were hosted by facilities that had recently suffered an RMP-reportable accident. The agency expects that after a reportable accident occurs, attendance at public meetings will be higher than was the case at many public meetings held under CSISSFRRA because of interest generated by the accident itself (e.g., an emergency response or media reports). This public meeting requirement applies only following an RMP reportable accident, so this provision has a much lower burden than the CSISSFRRA public meeting requirement because of the relatively few number of RMP reportable accidents that occur annually. CSB highlighted in their comments that public meetings held shortly after accidents occur have the greatest level of participation.
>
> EPA supports commenters' suggestions to find practical strategies to increase attendance and encourages public participation at public meetings; however, we are not incorporating these suggestions as mandatory requirements in the final rule. Facilities will have the flexibility to encourage attendance at meetings by means that are appropriate and effective in their communities. This could include methods suggested by commenters, such as polling nearby residents to gauge interest.

4.3.2. Applicability criteria and timeframe

4.3.2.1. Suggestions on applicability criteria for public meetings

Comment: Some commenters urged that public meetings should be held at the request of LEPCs or local emergency response agencies regardless if a regulated substance was involved or not (0450, 0443, 0453, 0565, 0594) while a facility suggested meetings should only be held when requested by the community (0492). Another commenter requested more clarification on the meaning of "reportable accident" that would trigger the requirement of a public meeting (0495). Many commenters, including a mass mail campaign joined by approximately 30 commenters, stated that the burden of information dissemination should be placed on state or local agencies or the EPA because those organizations are better equipped to efficiently communicate information to the public through established information systems (0475, 0562). Another state agency remarked that multiple meetings may be necessary in certain circumstances (0453).

A facility also remarked that public meetings should be required of all program level facilities (0552). Another state agency remarked that a "one-size-fits-all" approach was not appropriate, given the varied nature of incidents and that EPA Regions could provide facilitation support (0490). Several commenters

[79] Chemical Safety Information, Site Security and Fuels Regulatory Relief Act, Public Law 106-40, August 5, 1999. See http://www.gpo.gov/fdsys/pkg/STATUTE-113/pdf/STATUTE-113-Pg207.pdf.

requested that public meetings be required only when an event generated offsite impacts (0452, 0476, 0490, 0492, 0497, 0512, 0530, 0542, 0551, 0560, 0594).

> **EPA Response:** The term "reportable accident" refers to accidents required to be reported in the five-year accident history required under § 68.42 of the existing rule, which include accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. EPA agrees that in some cases, multiple public meetings may help to fully describe the circumstances of an accident. While EPA is requiring the owner or operator to hold only one public meeting after an RMP-reportable accident, the agency encourages owners and operators to hold additional meetings if appropriate. The final rule will require public meetings for regulated sources, regardless of program level, if the facility has an RMP-reportable accident. The agency does not view the public meeting requirement as a "one-size fits all" requirement. Sources will have flexibility to structure public meetings as appropriate to their circumstances and the needs of the surrounding community. EPA considered requiring public meetings only after accidents with offsite impacts but decided to apply the requirement to all RMP-reportable accidents because even though some RMP-reportable accidents have only on-site impacts, those accidents are often serious enough to raise safety concerns within the surrounding community.
>
> Finally, EPA is not requiring periodic public meetings, regardless of accident history, in the final rule. EPA believes that public interest in a meeting is highest after an accident, and notes that many commenters indicated that public meetings required by CSISSFRA were not well attended.

4.3.2.2. Timeframe for the public meeting

Comment:

Support of the proposed timeframe of the public meeting

A few commenters expressed support for the proposed timeframe (0428, 0453, 0507, 0574, 0519, 0552, 0589).

Opposition to the proposed timeframe of the public meeting

Multiple commenters stated that the 30-day timeframe for a public meeting would be too short as it is unlikely that a facility would complete an incident investigation in that time (0594, 0492, 0495, 0598, 0461, 0462, 0465, 0538, 0550, 0559). Several commenters warned that incomplete information would not be appropriate to share with the public and could breed distrust between the public and facilities over the lack of available data (0528, 0579, 0566).

Suggestions for a different timeframe on when the public meeting should be held

A state agency commented that a 30-day timeframe would be too lengthy as the need is immediate within two weeks of an accident (0586).

There were several recommendations on the specific timeframe for public meetings after an incident, including the following:

- Extend the timeframe to 60 days (0508, 0530, 0528).
- Extend the timeframe to 90 days (0452, 0490, 0521, 0527, 0529, 0535, 0544, 0555, 0560, 0595).
- Extend the timeframe to six months (0542).
- Extend the timeframe to nine months (0502).
- Extend the timeframe to twelve months or when the investigation report is completed (0564).
- Provide opportunities for deadline extension with reasonable justification (0472).
- Defer to LEPC or emergency response officials to determine timeframe of public meeting depending on situation (0450).
- Require consultation with LEPC or emergency response officials to determine appropriate paths to notify the public (0594).
- Require meetings once a year, regardless if an incident takes place (0403).

EPA Response: EPA acknowledges concerns raised by commenters about diverting facility resources from post-accident investigations, and the potential for a facility to lack complete information about an accident if the investigation hasn't yielded sufficient information to share with the public within 30 days. Therefore, EPA is revising the timeframe in the final rule for the public meeting to be held no later than 90 days after an RMP reportable accident. EPA expects that sources will either have completed the incident investigation required under § 68.60 or § 68.81 prior to holding the public meeting, or will have developed sufficient information relevant to community members' concerns to allow a productive meeting. Even if the accident investigation is not complete, a 90-day timeframe should allow the owner or operator to share appropriate information about the accident with the local community. The facility could discuss the progress of the investigation so far and next steps planned.

Some comments expressed the view that attendance at a public meeting is higher when the meeting takes place very soon after an accident occurs. The 90-day timeframe in the final rule is a maximum timeframe, and EPA encourages facilities to take into consideration when public interest may be highest when scheduling the public meeting. EPA recognizes that in some cases, such as for complex, protracted investigations, the facility may need to hold the public meeting prior to completing the incident investigation. In such cases, the owner or operator should consider holding a second public meeting after completing the incident investigation, or sharing information about results of the investigation through another means, such as a website, social media, with the LEPC or local emergency response officials, or distributing information directly to people who attended the public meeting and expressed interest in the additional information.

EPA does not believe that it is necessary to add a provision that would allow an extension of the 90-day timeframe with reasonable justification. Such a provision would add complexity to the requirement. Furthermore, EPA believes that by extending the timeframe to 90 days this allows sufficient time for the facility to gather information to share with the public after an accident.

EPA is not finalizing any requirements for LEPCs or local emergency response officials with respect to post-accident public meetings. EPA received many comments that opposed increasing LEPC responsibilities in the final rule, citing resource limitations and significant existing responsibilities. While a facility should communicate closely with LEPCs or local emergency response officials after an RMP reportable accident, and may combine public meetings with LEPC meetings or other events

as long as those events/meetings are available for public participation, the facility bears the responsibility for the public meeting. The final rule will place no additional burden on LEPCs or local emergency response officials with respect to requirements for post-accident public meeting.

4.3.3. Suggestions on the scope of information to be provided at public meetings

Comment: An industry trade association remarked that media outlets would be a more efficient way to disseminate information after a release than a large public meeting (0598). A commenter concluded that public meetings after an accident would be redundant as the information required would already be made available to the public and includes all the reportable accident investigations (0564). Another industry trade association asserted that local journalists that would relay basic information such as when the incident occurred or emergency response notifications would render a public meeting useless (0528). A few commenters stated that completed STAAs should be covered in public meetings to engage community members higher on the prevention hierarchy (0334, TRANS-23). A commenter cited that information about the nature of chemical risks within a community and emergency protocol during a release or another dangerous event would be the best information to share during a public meeting (0537). An industry trade association requested a clarification of information that would be required during a public meeting (0495).

EPA Response: EPA disagrees with commenters who stated that public meetings are useless or redundant to other sources of information. EPA believes that public meetings, particularly when held after an accident, will often provide easier access for community members to appropriate facility chemical hazard information, which can significantly improve the community's emergency preparedness and understanding of how the facility is addressing potential risks. Public meetings also provide an opportunity for the public to ask questions or share their concerns with appropriate facility staff and local government officials in attendance.

Public meetings must address information about the incident as well as other relevant chemical hazard information such as that described in § 68.210(b) (i.e., names of regulated substances held in a process; SDS; accident history information; emergency response program information; a list of scheduled exercises and LEPC contact information). The facility representative should describe the risks that are associated with the facility, and what the facility is doing to protect the public from those risks. In addition, the facility personnel should relay information that would assist the public to prepare for accidental releases. It would be extremely useful to have LEPC and local emergency response officials participate in the meeting to discuss the community emergency response plan and explain how the facility is incorporated into that plan. This would provide an opportunity for the facility representative and local officials to discuss the process for public emergency notification procedures, for sheltering in place or evacuating, and where to obtain further updates on the status of an emergency incident. The discussion should also address how the public can access community emergency response plans and identify what the community may expect to see during a field exercise.

In the final rule, EPA maintains the requirement for information in § 68.42 to be addressed at the public meeting. The facility will have the flexibility to structure the public meeting to focus on areas most relevant to a particular accident, considering the interests of the community. EPA is not requiring that completed STAAs be included, in part because this information is not pertinent

to community emergency response planning and also in part because the opportunity for the public to engage in a completed STAA analysis, which may contain CBI or trade secret information, may compromise confidentiality and create security vulnerabilities at the facility.

4.3.4. Alternatives to facility-hosted public meetings

Comment: Multiple commenters suggested alternatives to the public meeting provisions as proposed. Specific comments are as follows:

- EPA regions provide facilitation support in conjunction with local responders. Public meetings could occur concurrently with LEPC meetings, if active, while giving LEPCs the option to decline. Require public meetings only after an event with offsite impacts (0490).
- Local officials or the EPA should be the responsible party for ensuring these meetings take place, not facilities (0594, 0562).
- LEPCs should have the ability to decline the facilitation or preparation for a public meeting because of their already substantial responsibilities (0452).
- Allow small businesses to post information required to be disclosed at a public meeting (0502).
- Conduct meetings with LEPCs and/or local responders after an accident rather than meetings for the general public (0521, 0595).
- Require consultation with the LEPC to determine if a community meeting is needed or if other communication avenues would be adequate (0594).
- Post-accident meetings should be limited to LEPCs and emergency officials because having public meetings would not facilitate meaningful input (0496, 0458, 0521).

EPA Response: EPA disagrees with the commenters. LEPCs hold meetings with the public to discuss issues related to community planning. The public meetings the will be required by § 68.210(e) in the final rule are intended to be a venue for facility personnel to address questions and concerns raised by the public following an RMP reportable accident at a facility. While communication between the facility and the LEPC is essential, it cannot replace communication between knowledgeable facility staff and the public. LEPCs are encouraged to participate in public meetings, and may collaborate with the owner or operator to host the meeting in conjunction with an LEPC meeting if appropriate. However, LEPCs will not be required to co-host or participate in public meetings.

Finally, EPA believes that small businesses should also host public meetings following an RMP reportable accident to allow community members an opportunity to talk with facility personnel. EPA encourages small businesses to find ways to reduce costs of public meetings such as by hosting the meetings at inexpensive venues, such as local schools, community centers, or churches.

4.4. Option to support public disclosure provisions with a "score card" or a "grade" system

Comment:

Support of the "score card" or "grade system"

A few commenters expressed support for the proposed grading system, stating that a simple grading system could be sufficient for providing compliance information to the public (0450, 0453).

Opposition to the "score card" or "grade system"

Several commenters expressed opposition to the proposed provision for multiple reasons stated below:

- Independent third-parties would not be the appropriate authority for the system because they are unregulated and there has been no guidance on qualifications of these entities (0528, 0473, 0536, 0555, 0562, 0579).
- It would be difficult to establish a consistent grading system across an industry that varies greatly in size and type of facilities and risks that each presents (0496, 0598, 0544, 0552).
- The information presented in the grading system could be misunderstood by the public and not reflect the true compliance standing of a facility (0496, 0598, 0560, 0562, 0565).
- There has not been enough information provided to adequately comment on the provision (0542, 0560, 0579).
- Shaming a facility into compliance is not the proper approach (0473).
- A grading system could lead to national security issues as facilities with lower grades could be viewed as vulnerable and the system could be leveraged in legal issues (0497).

EPA Response: EPA appreciates the comments and recognizes both the support and the concerns raised by commenters related to the "score card" or "grade" system. EPA has decided not to finalize anything related these proposed provisions in the final rule.

4.5. Other comments on information availability requirements

Comment: A private citizen stated that interactions with LEPCs in the past were not effective and expressed that relying on industry to provide information was unsatisfactory (0345). Another private citizen remarked that the information provisions proposed in the rule would create "information bottlenecks" and would isolate LEPCs and emergency response officials from learning from other jurisdictions (TRANS-23).

EPA Response: EPA is committed to ensuring that chemical hazard information is available to the LEPC and public in an easily accessible manner which facilitate emergency planning and preparedness. Requiring facilities to coordinate annually with LEPCs or local emergency officials to obtain the information they require to meet their emergency response planning needs and allow them to ask questions of facility personnel about the risks associated with the chemical hazards at the facility and about appropriate mitigation and response techniques to use in the event of a chemical release, will improve local emergency planning and preparedness activities. This requirement does not preclude LEPCs and local emergency officials from coordinating with and learning from other LEPCs, but is an opportunity for LEPCs and local emergency officials in multiply jurisdictions to meet together with facilities whose risks have the potential of effecting their communities. Additionally, requiring facilities to provide information to the public upon request, would allow people that live or work near a regulated facility to gather the specific information they need to improve their awareness of risks to the community and to prepare to protect themselves in the event of an accidental release.

Comment: A commenter suggested that the proposed changes to the rule would be unnecessary if portions of the EO were implemented. This commenter cited Section 3 "Improved Operation

Coordination with State, Local, and Tribal Partners" and Section 5 of the EO as alternatives to expanding the information reporting requirements within the RMP rule (0590).

> **EPA Response:** EPA is committed to fulfilling the action items related to EO 13650 Improving Chemical Facility Safety and Security. As part of the Agency efforts to "improve operation coordination with State, Local, and Tribal Partners" and based on comments received from States, LEPCs, and local emergency officials, EPA has made adjustments to the proposed rule to facilitate coordination between facilities and LEPCs/local emergency officials. EPA is requiring the owner or operator to coordinate annually with LEPCs/local emergency officials and provide "any other information that local emergency planning and response organizations identify as relevant to local emergency planning."

5. Risk Management Plan Streamlining, Clarifications, and Risk Management Program Rule Technical Corrections

5.1. General comments

Comment: Many commenters, including multiple industry trade associations, stated that while they support EPA's proposal to streamline regulatory compliance, EPA's proposal to substitute broad attestations of compliance for submissions of existing data in an effort to streamline compliance is not practical and is burdensome (0537, 0544, 0555). Similarly, an industry trade association stated that, while they support EPA's proposal to streamline regulatory compliance, EPA's proposal to substitute broad attestations of compliance for submissions of existing data will unduly increase EPA's legal leverage over facilities (0496). An industry trade association stated that EPA's proposed provision requiring stationary sources to certify attestations of compliance is unreasonably burdensome and does not improve safety. The commenter also commented that EPA does not have the authority to require attestations of compliance (0537).

> **EPA Response:** EPA is deferring final action on these proposed amendments. When EPA decides to take final action on these proposed amendments, EPA will provide a substantive response to these comments.

5.2. Revisions to §§ 68.170 and 68.175 (Prevention Program/Program 2 and Program 3)

Comment: Several commenters expressed concern with EPA's revisions to §§ 68.170 and 68.175. These commenters indicated that creating a list of all Federal, State, industry, and company design codes and standards will be costly and burdensome for organizations and the Agency. These commenters stated that this requirement is both impossible to implement and unnecessary (0489, 0560, 0579, 0536).

> **EPA Response:** EPA is deferring final action on these proposed amendments. When EPA decides to take final action on these proposed amendments, EPA will provide a substantive response to these comments.

5.3. Revisions to § 68.180 (Emergency Response Program)

Comment: A private citizen commented that the revision to § 68.180 is unclear and that the 'data elements' of the proposal do not distinguish between responding and non-responding stationary sources (0414).

> **EPA Response:** EPA disagrees and believes that the data elements distinguish between responding and non-responding stationary sources. A stationary source will be required to identify whether they are "responding" or "non-responding" and responding stationary sources will answer questions accordingly. EPA will revise its online RMP submission system, RMP*eSubmit, to include the additional data elements, and expects that the submission system will provide clarity for stationary source owners and operators on how to submit responses.

Comment: An industry trade association stated that EPA should not require email addresses as a mandatory information field within the risk management plan. The commenter stated that all contact information for the purposes of the proposed rule should remain optional (0598).

> **EPA Response:** EPA disagrees. Email is a common form of communication and serves as an alternative method to phone calls and postal deliveries.

5.4. Technical corrections

5.4.1. Revisions to § 68.48 (Safety Information)

Comment: A facility recommended that EPA's revision to § 68.48 should not require facilities to ensure that SDSs meet OSHA's hazard communication standard requirements. This facility argued that operators are given their SDSs by vendors and do not have control over their content (0489).

> **EPA Response:** EPA disagrees with the commenter. The current rule requires the owner or operator to maintain Material Safety Data Sheets (MSDS) that meets the OSHA hazard communication standard requirements of 29 CFR 1910.1200(g). In 2012, OSHA made changes to its Hazard Communication Standard at 29 CFR 1910.1200 in order to align with the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3 (77 FR 17574, March 26, 2012). One change was in nomenclature from "Material Safety Data Sheets" to "Safety Data Sheets." Consequently, OSHA revised the name of the MSDS to Safety Data Sheets (SDS) in the PSM standard at 1910.119(d)(1)(vii) (78 FR 9311, February 8, 2013). Chemical producers and users had to comply with SDS requirements by June 1, 2015.[80] EPA's technical correction is solely to be consistent with the revised OSHA requirements and EPA is finalizing this amendment as proposed.

5.4.2. Revisions to §§ 68.54 and 68.71 (Training)

Comment: Several commenters suggested that the proposed revisions to § 68.54 are unclear. These commenters indicated that EPA should provide greater clarification regarding the length of time

[80] OSHA Fact Sheet- Hazard Communication Standard Final Rule. https://www.osha.gov/dsg/hazcom/HCSFactsheet.html.

employers should train their employees, which employees need training, and the distinction between employees "operating" a process and employees "involved in operating" a process (0446, 0560, 0489).

> **EPA Response:** EPA directs readers to review the Guidance for Facilities on Risk Management Programs for Chemical Accident Prevention (40 CFR part 68) (or General Risk Management Program Guidance), which clarifies expectations for training requirements.[81] The guidance does not specify a specific amount or type of training and allows the owner or operator to develop a training approach that is facility-specific and tailored to the needs of the facility's employees. The revised language to require training for employees "involved in" operating a process is intended to include employees that operate a process, as well as supervisors of those employees, and other employees that may occasionally be involved in process operations, such as process engineers and maintenance technicians. For employees other than operators and supervisors, EPA expects that initial and refresher training will be appropriate to the employee's responsibilities in operating the process.
>
> If a supervisor is involved in decision-making for process operations, such as making changes to operating parameters, developing or approving operating procedures, or conducting emergency operations, then EPA expects that the supervisor receives initial and refresher training appropriate to the supervisor's responsibilities. In such cases, the training of a supervisor might not need to be as extensive as that of an operator, but EPA expects that the supervisor training will include process operations for which the supervisor might have decision-making authority.

6. Compliance Dates

6.1. General comments

Comment: A few commenters generally stated that the proposal's compliance dates should be significantly shorter (0406, 0543, 0552).

A facility requested that EPA clarify that annual compliance dates and required reoccurring tasks have flexible yearly due dates to allow facilities to perform thorough evaluations without the pressure of tight yearly deadlines (0489).

> **EPA Response:** EPA agrees with commenters that annual compliance dates and required reoccurring tasks should have flexible yearly due dates. This will allow the facility owner or operator and local emergency response officials to schedule coordination activities or exercises based on availability of personnel and minimize unnecessary pressure to comply with a rigid timeframe.
>
> However, EPA disagrees that the compliance dates for all provisions should be shortened to one or two years. EPA believes that additional time is necessary for facility owners and operators to understand the revised rule; train facility personnel on the revised provisions; learn new investigation techniques, as appropriate; research safer technologies; arrange for emergency response resources and response training; incorporate change into their RMPs; and establish a strategy to notify the public that certain information is available upon request. Furthermore, EPA

[81] General Guidance for Facilities on Risk Management Programs for Chemical Accident Prevention (40 CFR part 68), March 2009. https://www.epa.gov/rmp/guidance-facilities-risk-management-programs-rmp.

intends to publish guidance for certain provisions, such as STAA, root cause analysis, and emergency response exercises. Once these materials are complete, owners and operators will need time to familiarize themselves with the new materials and incorporate them into their risk management programs.

6.2. Third-party compliance audits

Comment: An industry trade association suggested that a lack of qualified third-party compliance auditors will result in delays in compliance with EPA's proposed rules and that the compliance period will place excessive burden on facilities who cannot find qualified individuals. The commenter further cited the inability to plan for a third-party audit based on the applicability criteria as a reason for the owner or operator to be unable to comply within the timeframe (0496). Another commenter asserted that the proposed rule provisions and compliance dates are inappropriate for third-party audits (0545).

Other commenters urged for shorter timeframes with one commenter pointing out that this provision is triggered by an accident and should therefore be under an accelerated compliance date (0406, 0450, 0453). Two commenters suggested a three-year compliance date, with the one commenter arguing that there already enough people to perform third-party audits (0450, 0453).

> **EPA Response:** EPA disagrees with commenters and is finalizing a four-year compliance date for third-party audits. This means that for any RMP reportable accident occurring later than four years after the effective date of the rule, the owner or operator of a source must conduct a third-party audit. The four-year compliance timeframe will allow potential auditors enough time to establish internal protocols and identify personnel that meet the competency and independence criteria necessary to serve as a third-party auditor. These auditors will also need time to advertise their availability to conduct third-party audits so facility owners and operators can identify potential auditors before there is a need to conduct a third-party compliance audit.

Comment: A facility stated that EPA should clarify that a reportable release that occurred prior to the implementation date of the final rule would not trigger a requirement to perform a third-party audit (0489).

> **EPA Response:** Section 68.10 is being modified to establish compliance dates for owners and operators to comply with the revised rule provisions. Pursuant to 40 CFR § 68.10(d), by four years after the effective date of the rule, the owner or operator shall comply with the third-party audit provisions in §§ 68.58(f), 68.58(g), 68.58(h), 68.59, 68.79(f), 68.79(g), 68.79(h), and 68.80. Therefore, releases that occurred prior to the effective date of the final rule would not trigger a requirement to perform a third-party audit.

6.3. Incident investigation and root cause requirements

Comment: A union stated that the proposed rule's compliance date for root cause analysis, June 5, 2021, is too long, and recommended that EPA amend the proposal to require implementation by June 5, 2018 (0519). Another commenter asserted that the proposed rule provisions and compliance dates are

inappropriate for root cause analysis (0545). A few local agencies recommended that the compliance date for root cause analysis be shortened to one year (0450, 0453).

> **EPA Response:** EPA disagrees with the commenters and is finalizing a four-year compliance date for incident investigations involving root cause analyses. For any incident that resulted in (e.g., an RMP reportable accident) or could reasonably have resulted in a catastrophic release, the rule provides that the owner or operator has four years after the effective date of this rule to investigate the incident and conduct a root cause analysis. This will allow facility owners and operators sufficient time to establish training and program development activities. EPA encourages facility owners or operators that are already conducting root cause analyses to continue to do so for any incident that resulted in (e.g., an RMP reportable accident) or could reasonably have resulted in a catastrophic release during the compliance timeframe.

6.4. Safer technology and alternatives analysis

Comment: Many commenters, including mass mail campaigns joined by approximately 13,840 commenters and multiple advocacy groups, requested that EPA expedite compliance with STAA requirements (0470, 0471, 0519, 0575, 0543). The current proposal permits facilities to comply with STAA requirements within five years. These commenters stated that five years is too long of a compliance period. An environmental advocacy coalition of approximately 140 commenters stated that the proposed compliance period is unlawful and arbitrarily long. The commenter argued that EPA has no lawful legal basis to extend the STAA compliance date beyond three years (0575). Another commenter suggested that EPA should consider following the NJ model to implement IST requirements and require an initial review report within 120 days of the rule's effective date (0470). However, other commenters thought the proposed timeframe was too short. One commenter cited the complexity of the IST/ISD analysis as a reason to extend the compliance date into a second PHA cycle to allow more time for engineering studies and design (0495). Another commenter supported the U.S. Small Business Administration (SBA) recommendation to defer the STAA requirement for three years for small facilities so that EPA can gather information on their experience and assess how often safer alternatives were identified and at what cost (0555).

> **EPA Response:** EPA disagrees with commenters and is establishing a four-year compliance date for STAA. EPA believes that in many cases sources will prefer to perform a full PHA update when implementing the STAA requirements. Sources subject to this provision are among the largest and most complex sources regulated under 40 CFR part 68, and therefore PHAs and PHA updates at these sources typically require a significant level of effort. Since PHA updates are normally done at five year intervals, EPA believes it would be appropriate to allow most sources to adopt these provisions in their normal PHA update cycle if they so choose. Sources that performed their most recent PHA update immediately prior to this rule's effective date will have up to four years to perform their next PHA update and adopt the STAA provisions. Most sources could schedule their PHA updates to incorporate the new STAA provisions on their normal PHA update schedule. EPA also intends to publish guidance on STAA and once complete, facility owners and operators will need time to familiarize themselves with the new materials and incorporate them into their RMPs.

EPA disagrees with the recommendation to defer the STAA requirement for three years for small facilities in order to allow EPA to gather information. STAA for a source is a site-specific determination and would be difficult to compare among facilities. EPA believes it would be impractical to gather/analyze information on STAA implementation to determine the utility of the provision for small facilities.

6.5. Emergency response coordination

Comment: EPA received comments supporting the proposed one-year compliance date for emergency response coordination activities (0450, 0453, 0519). One commenter requested clarification on how to calculate the annual coordination activities, recommending that it be based on a calendar year (0489).

> **EPA Response:** EPA agrees with commenters and is finalizing a one-year compliance date for emergency response coordination activities. EPA believes that a flexible schedule is appropriate for scheduling annual coordination and agrees with the recommendation to base the coordination on a calendar year timeframe.

6.6. Emergency Response Program

Comment: One commenter suggested that EPA should allow a minimum timeframe of 12 months for a non-responding facility to transition to a responding facility. The commenter further suggested incorporating an extension request to local agencies in the event of compliance delays that fall outside the owner/operator's control (such as budget constraints or inability to procure response resources) (0562). An industry trade organization commented that many facilities will contract with other organizations to comply with the requirements of a 'responding' facility immediately after the rule's implementation, and that the three-year compliance time frame will be irrelevant because implementation costs will become an operational cost, not a capital expense (0555).

> **EPA Response:** EPA is finalizing a three-year compliance date for a facility owner or operator to develop an emergency response program once he or she determines a need for a program. EPA is not incorporating in an extension request to address compliance delays that may fall outside the owner or operator's control. EPA notes that the two provisions from § 68.90 of the proposed rule that would have made the owner or operator's decision to develop an emergency response program contingent on the outcome of local coordination activities, and required the owner or operator to develop an emergency response program upon receiving a written request to do so from the LEPC or local response authorities, were not included in the final rule. EPA believes that by making these changes, the regulatory provisions that would potentially have caused many sources to convert from being non-responding sources to responding sources have been removed from the final rule. However, as the emergency coordination provisions of the final rule require regulated sources to coordinate annually with local responders and to document coordination activities, EPA acknowledges that it is possible that these more frequent coordination activities may still prompt some sources to implement an emergency response program (i.e., for a non-responding source to become a responding source). In such cases, EPA believes a three-year timeframe is appropriate to establish a program that meets the requirements of § 68.95.

6.7. Facility exercises

Comment: A union stated that the four-year implementation timeline for emergency response exercises is inappropriate. The commenter suggested that if coordination must begin within one year, exercises should begin to take place no later than one year after that (0519).

> **EPA Response*:*** EPA disagrees with the commenter and is finalizing a four-year compliance date for conducting emergency response exercises. This means that the owner or operator has four years after the effective date of this rule to conduct a notification exercise, consult with local emergency response officials to establish a schedule for conducting tabletop and field exercises, and conduct at least one tabletop or field exercise. EPA believes that this timeframe will allow owners and operators to develop an exercise program that is appropriate for their facility, train personnel, and coordinate with local emergency response officials. EPA also expects to develop guidance on emergency response exercises and facility owners and operators will require time to familiarize themselves with the guidance.

6.8. Information availability and public meetings

Comment: A union stated that the proposed timeline for information sharing should be shortened to three years if the information is shared with the public. The commenter recommended that information sharing with facility workers should begin immediately after the implementation of the rule (0519). Another commenter asserted that the proposed rule provisions and compliance dates are inappropriate for the sharing of information, arguing that provisions triggered by an accident should be required in an accelerated timeframe (0545). A few local agencies recommended that the compliance dates for information sharing should be reduced to 3 years (0450, 0453).

> **EPA Response:** EPA disagrees with commenters and is finalizing a four-year compliance date for information availability provisions. This means that four years after the effective date of the rule, the facility owner or operator must have notifications in place to inform the public that information specified in § 68.210(b) is available upon request. For any RMP reportable accident occurring later than four years after the effective date of the rule, the owner or operator of a source must hold a public meeting within 90 days of the accident. EPA believes that this timeframe is sufficient to allow facility staff an opportunity to determine the best method for providing notifications to the public and to assemble and format information to prepare to respond to information requests.

7. Statutory and Executive Order Reviews

7.1. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

7.1.1. General comments

7.1.1.1. Environmental Protection Agency costs underestimated or based on outdated information

Comment: Several industry trade associations stated that EPA's cost estimates are generally inaccurate and underestimate the true costs that facilities will face (0598, 0528, 0536, 0554, 0559, 0492). Multiple industry trade associations claimed that the wage rates EPA used to estimate the costs of the proposed rule are inaccurately low and should be raised to reflect real wages paid by industry. The commenters

also stated that EPA should expand the personnel types in its cost estimate, for example by using several levels of management and production level staff rates in its estimate for the cost of rule familiarization (0363, 0579, 0594).

Several industry trade associations stated that EPA used narrow, outdated, and inaccurate data in arriving at its cost estimates (0536, 0554). An industry trade association commented that the data EPA used to analyze the water sector in its RIA was unreliable (0554).

> **EPA Response:** EPA considered the information provided by commenters on specific rule provisions and made substantial adjustments to the cost estimates. In general, these changes resulted in increased unit costs for rule familiarization, coordination, information disclosure, third-party audits, and incident investigation provisions to incorporate commenter-sourced hour estimates. In addition to adjusting the cost estimate for the final rule to incorporate cost information submitted by commenters, EPA also adjusted the estimate to delete costs associated with proposed rule provisions that were not included in the final rule (e.g., Information availability to LEPCs), and to account for structural changes between proposed and final rule provisions for certain rule elements (e.g., the final rule requires emergency field and tabletop exercises to be conducted less frequently than EPA had proposed). EPA also updated its estimated labor rates to the most recent (2015) values available from the BLS. EPA also acknowledges that estimates – both in terms of unit costs and numbers of facilities – may not perfectly match specific industry sectors. To the extent possible, EPA made adjustments to facility-provided data in the RMP database to address some of the more obvious discrepancies.

7.1.1.2. General comments about burden of the rule

Comment: A facility and an industry trade association stated that EPA failed to propose RMP amendments that are reasonable and appropriate considering costs (0492, 0579).

An industry trade association commented that the proposed rule will raise costs for facilities facing difficult economic conditions (0407). A facility stated that the proposed rule would be especially burdensome for the electric utility industry (0483). Industry trade associations stated that the proposed rule will be burdensome to the agricultural retail industry and the drinking water and wastewater treatment sectors (0571, 0554).

> **EPA Response:** EPA acknowledges that many of these provisions will require time and monetary commitments to implement. EPA also believes that many of these provisions are necessary updates to the existing RMP rule to ensure continued public safety concerning the operation of chemical facilities in and near communities. Further, the rule has been structured such that the costliest provisions are targeted towards the largest and highest-risk facilities or only occur after an accident. The only provisions that are universally applicable are public disclosure and rule familiarization. Many other provisions – such as public meetings, incident investigation, and third-party audits – are only required if an accident or (for incident investigation) near miss occurs. Of the remaining provisions, several – such as STAA and exercises – only apply to a narrow subset of NAICS codes or facilities with response capabilities. Very few facilities will incur costs related to all provisions and many of the costliest provisions – such as STAA – are not applicable to agricultural retail or water treatment facilities.

7.1.1.3. Benefit concerns

Comment: A state agency, several facilities, and multiple industry trade associations commented that the proposed rule (both overall and with regards to specific provisions) unnecessarily increases the burden on facilities without a commensurate increase in overall safety (0433, 0440, 0476, 0492, 0531, 0537, 0544, TRANS-05, TRANS-15). An industry trade association stated that EPA overstated the benefits of the proposed rule by assuming the rule will prevent all future accidents, including private benefits as social benefits, claiming safety benefits of existing regulations, and assuming safety will not improve independently of regulation (0554). An industry trade association wrote that EPA should not rely on aspirational proposals to project community benefit and cost reduction (0500).

An industry trade association commented that EPA failed to quantify any benefits of the rule, making a cost-benefit comparison impossible (0559). Similarly, a Federal elected official and several industry trade associations commented that EPA failed to quantify any safety benefits resulting from the proposed revisions, making a cost-benefit comparison impossible (0457, 0555). Several industry trade associations requested that EPA take more time to monetize the benefits of the proposed rule (0536, 0558).

Multiple industry trade associations stated that EPA inappropriately double-counted the benefits accruing from OSHA's PSM program as benefits associated with the RMP proposed rule (TRANS-15, 0358, 0364, 0559).

One commenter stated that EPA's listing of benefit categories is incomplete and should include potential losses in reputation or brand value, higher insurance premiums, and difficulty hiring and retaining workers that facilities may incur in the case of a chemical accident (0537).

A commenter stated that the proposed regulations will improve safety, thereby preventing chemical releases that may cause economic losses (0527).

> **EPA Response:** EPA disagrees that the proposed rule would not provide benefits or that the costs of the rule would necessarily outweigh its benefits. As EPA explains in the RIA for the final rule, the benefits of the final rule include reductions in the number of people killed, injured, and evacuated or otherwise inconvenienced by sheltering in place; reductions in the damage caused to property on-site and offsite including product, equipment, and buildings; reductions in damages to the environment and ecosystems; and reductions in resources diverted to extinguish fires and clean up affected areas. The final rule also provides other benefits, such as increased public information, which in addition to helping to minimize the impacts of accidents on the offsite public, may also lead to more efficient property markets in areas near RMP facilities.
>
> EPA acknowledges that it is not possible to estimate quantitative benefits for the final rule. EPA has no data to project the specific impact on accidents made by each final rule provision. The accidents themselves have highly variable impacts that are difficult to predict. However, it is clear from the RMP accident data and other available data that chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and the broader economy. Reducing the risk of such accidents and the severity of the impacts when accidents occur, and improving information provision, as the final rule intends, provides benefits to the potentially affected members of society.

EPA disagrees that the final rule takes credit for benefits that should accrue to the OSHA PSM standard. None of the provisions contained in the final rule are duplicated in the OSHA PSM standard. EPA also disagrees that regulated facilities will suffer losses in reputation or brand value, higher insurance premiums, or have difficulty hiring and retaining workers as a result of the final rule. If, as EPA expects, the final rule results in the prevention of accidents, then it should have the opposite of these effects, to the extent they relate to chemical accidents.

7.1.2. Estimate of rule familiarization costs

Comment: Several industry trade associations claimed that EPA's estimate of the costs of rule familiarization are too low (0554). Commenters stated that EPA's estimate only includes management level employees but should be expanded to include the cost of training all relevant facility employees (0363, 0579, 0594). Another stated that EPA fails to estimate the costs of updating internal compliance documents, training materials, and third-party contracts (0364).

One commenter recommended alternate approaches to estimating the costs of rule familiarization that included estimates of time spent by additional labor categories (e.g., attorneys, engineers, production staff, etc.) (0364). One commenter also recommended that EPA consider adjusting its rule familiarization estimate to better track with the estimate used by the NJ DEP for revisions to the NJ TCPA regulations (0554).

EPA Response: EPA agrees with these comments, and adjusted its rule familiarization estimate accordingly, resulting in an increase of the estimated costs of rule familiarization. As compared to the NPRM, EPA has doubled the hourly estimates (excluding EPA regional offices), and for Program 3 complex facilities – the most affected type of entity by this rule – significantly increased the unit costs to account for work that will be incurred across all labor categories to update internal documentation, training, and contracts. EPA believes that the unit costs are now correctly aligned with likely efforts. Regarding alternative approaches to estimating rule costs, EPA examined the estimates associated with previous iterations of the RMP rule and similar rulemakings and believes that these estimates are representative of the likely levels of effort resulting from the new provisions.

7.1.3. Third-party audit costs

Comment: Several industry trade associations claimed that EPA's estimate of the costs of third-party audits is inappropriately low (0440, 0495, 0550, 0554, 0559, 0564, 0579, 0594). Some commenters stated that the triggers for third-party audits are unclear and will likely require audits more frequently than EPA estimates (0363, 0554, 0594). Others stated that the agricultural and baking industries will face a disproportionately large burden compared to other industries due to a lack of qualified third-party auditors (0466, 0496). Many commenters also stated that third-party auditor fees will be much higher than EPA's estimate, partially due to the low availability of qualified auditors (0363, 0364, 0466, 0461, 0476, 0537, 0554, 0579, 0569, 0594). Other commenters stated that the third-party audit provisions are not cost-effective (0512, 0566, 0573). Another claimed that the proposed rule creates a burden of checking every employee of an auditing firm for potential conflicts (0521). An industry trade association stated that the expanded audit scope constitutes an unnecessary burden on regulated facilities and auditors (0358). A

few commenters, including facilities, stated that EPA's RIA did not account for the expanded scope of compliance audits to cover "each covered process" (0570, 0573).

Several commenters submitted cost information from external audits to support their estimates (0536, 0537, 0569).

EPA Response: EPA generally agrees that the estimated costs of the proposed third-party requirements were too low. Shortly after the proposed rule was published, EPA received cost information relating to a series of third-party audits conducted by a facility as a result of an enforcement action taken by EPA under CAA Section 112(r). The average cost of these audits was approximately double EPA's estimate in the proposed rule, and comparable to cost estimates submitted by commenters. Therefore, EPA adjusted its cost estimate for this provision of the final rule accordingly, resulting in the estimated costs of third-party audits under the final rule nearly doubling. EPA notes that the third-party audit provisions of the final rule also relaxed, to some extent, the independence and competency criteria for third-party auditors. The Agency believes that these changes will increase the availability of qualified auditors, and therefore make such audits less costly than might otherwise have been the case.

EPA does not believe that the rule will likely require audits more frequently than EPA estimated. EPA revised the criteria so that third-party audits are required only after RMP-reportable accidents or when an implementing agency requires a third-party audit, due to a determination that conditions at the stationary source could lead to an accidental release of a regulated substance, or when required because a prior third-party audit failed to meet the applicable competency or independence criteria. EPA does not expect these criteria to impact a large percentage of stationary sources with Program 2 and/or Program 3 processes. For example, comparing the number of facilities which in past years have had an RMP reportable accident (averages approximately 150/year), with the number of current stationary sources with Program 2 and/or Program 3 processes, would represent less than 2% of stationary sources subject to this requirement, due to an accident, on an annual basis. EPA believes that having the implementing agency evaluate whether conditions exist that could lead to an accidental release better addresses the types of situations where a third-party audit would be most effective and will minimize the potential for inconsistent or arbitrary decisions made by implementing agencies. EPA also believes that the revised criterion is responsive to commenters' requests to narrow the applicability of these requirements. The criterion focuses on conditions with the potential to lead to accidental releases, rather than authorizing implementing agencies to require third-party audits under a potentially wide range of circumstances, including minor noncompliance.

EPA disagrees that the rule expanded the scope of compliance audits to cover "each covered process." EPA has consistently maintained that, at least every three years, owners or operators must, under the RMP rule, certify that they have "evaluated compliance with the prevention program requirements for <u>each covered process.</u>" In EPA's General Risk Management Guidance, issued in 2004 and updated in 2009, in Chapter 6, "Prevention Program (Program 2)" Section 6.7 "Compliance Audits (§ 68.58)", under the heading "What Do I Need to Do?," it states "At least every three years, you must certify that you have evaluated compliance with the prevention program requirements for <u>each covered process</u>" [emphasis added]. In addition, Chapter 7 of this

guidance, “Prevention Program (Program 3)” Section 7.9 “Compliance Audits (§ 68.79),” states “You must conduct an audit of the process to evaluate compliance with the prevention program requirements at least once every three years.” The rule revision is thus consistent with both the initial RMP rule and EPA’s longstanding interpretation of the scope of the rule and does not impose additional costs to the regulated community relating to the scope of compliance audits.

7.1.4. Incident investigations and root cause analysis

Comment: Several industry trade associations and a facility claimed that EPA's estimate of costs of incident investigations and root cause analysis is inaccurately low (0363, 0364, 0579, 0594). Commenters stated that the triggers for incident investigations and root cause analyses are unclear and will lead to more a higher number of required investigations than EPA estimates (0363, 0364, 0554, 0594). Some commenters suggested that the required number of investigations will increase significantly as a result of EPA’s proposal to re-define the term “catastrophic release,” and that this would cause the cost of this rule element to increase substantially (0363, 0579, 0594). Several industry trade associations stated that EPA's proposed definition of "catastrophic release" unnecessarily raises costs on facilities by including near misses, a term the commenters argue is unclear and subjective (0559, 0579). A private citizen commented that EPA did not quantify the potential costs of catastrophic release, distorting cost-benefit analysis (0416). A facility and industry trade association stated that incident investigations require more employees than are accounted for in EPA's cost estimate, and that EPA needs to significantly raise its estimate (0492, 0579).

Some commenters submitted cost information to support their estimates (0363, 0492, 0579, 0554, 0594).

EPA Response: Although EPA disagrees that its proposed changes to the definition of catastrophic release would have increased the number of investigations required under the rule, the Agency is not finalizing the proposed changes to that definition, so no increase in incident investigation costs will result from it. Regarding commenters’ concerns that EPA had not accounted for enough labor hours for investigations in the RIA for the proposed rule, after considering these comments, the Agency generally agrees that its estimate was too low. EPA incorporated the cost information submitted by commenters into its estimate for the final rule. EPA also notes that unlike the estimate for the proposed rule, the final rule economic estimate did not assume that investigations of near misses would require fewer labor hours than investigations of actual release events. This change also accounted for some of the increase in the estimated cost of this rule element. Overall, these changes resulted in the estimated cost of this rule element approximately doubling for the final rule.

7.1.5. Safer technology and alternatives analysis costs

7.1.5.1. Safer technology and alternatives analysis costs too low

Comment: Multiple industry trade associations claimed that EPA's estimate of costs for STAA is inaccurate and will require more staff expertise and time than EPA estimated for facilities with multiple RMP processes (0537, 0554, 0579). Several commenters asserting that the Agency’s estimate of costs for the proposed STAA provision were too low addressed both EPA’s estimate of the cost of the initial study of safer technology options, as well as the Agency’s estimate of costs for the required evaluation of the

practicability of IST considered during the STAA.[82] Some commenters submitted alternate cost estimate information for both the initial analysis of options and the practicability study (0554, 0579).

> **EPA Response:** EPA notes that in general, commenter's cost estimates for the initial analysis were higher than EPA's estimates, although not in every case. EPA incorporated these estimates into the RIA as appropriate – the Agency assumed that cost estimates for the STAA initial analysis submitted by trade associations representing a particular category of facilities (e.g., refineries, complex chemical manufacturers, etc.) were the best representation of estimated costs for those categories of facilities, and adjusted its own estimate accordingly. In most cases, this caused the estimated costs for the STAA initial analysis to increase.

7.1.5.2. Practicability study costs

Comment: For the practicability study, several commenters stated that EPA's estimate was far too low, and indicated that EPA should adopt an alternate approach that estimated the cost of the practicability study as a fixed fraction of the cost of the project being considered (0554).

> **EPA Response:** After reviewing these comments, EPA conducted additional research on this subject which confirmed that these commenters were generally correct on this point. EPA therefore adjusted its approach to estimating the costs of practicability studies accordingly, which resulted in a significant increase for the cost of this provision. EPA's research on this topic and the resulting cost estimation approach is explained in detail in Appendix D to the RIA for the final rule.

7.1.5.3. Safer technology and alternatives analysis implementation

Comment: Some commenters requested that EPA either estimate implementation costs or remove the entire requirement from the final rule (0363, 0492, 0579, 0594). Similarly, other commenters stated that the Agency should assume that the STAA provision will result in some facilities implementing safer technologies, and include the costs associated with such implementation in its economic estimate (0363).

> **EPA Response:** EPA disagrees with these comments. While the Agency agrees that some facilities may elect to implement IST, the final rule will not require facilities to do so. Therefore, the Agency believes that implementation of IST will result from the owner or operator's own judgement that it is beneficial for the source, after considering all relevant factors. The STAA required under this rule may facilitate such decision making, but will not require it.

7.1.5.4. Other comments on safer technology and alternatives analysis costs

Comment: An environmental advocacy coalition of approximately 140 commenters asked EPA to include potential liabilities, costs, avoided costs, and savings associated with each major STAA option evaluated in its economic analysis (0575).

> **EPA Response:** In response to comments, EPA significantly expanded the approach to calculating STAA burden. The new approach methodology and sources are explained in Appendix D of the RIA. To briefly summarize, EPA updated the initial study numbers to reflect

[82] EPA used the term "feasible" rather than "practicability" in the proposed rule.

commenter suggestions. For the practicality study, EPA identified a number of representative implementation projects that a facility could voluntarily implement, ranging from piping or valve replacements to chemical conversions. The Agency then assumed a percentage of these total costs would be incurred as part of the practicality study – as suggested by commenters and other sources. For more information on the specific approach and data, please refer to Appendix D in the RIA.

Comment: Another commenter requested that EPA include the cost of hiring consultants for large facilities (0492). An industry trade association commented that costs would be high for the paper industry (0551). An association of government agencies expressed concern at perceived high costs on water treatment plants (0553).

EPA Response: In response to comments, EPA significantly expanded the approach to calculating STAA burden. The new approach methodology and sources are explained in Appendix D of the RIA. Regarding the use of consultants as compared to in-house labor, EPA assumed a percentage of estimated overall project cost (STAA projects that hypothetically could be implemented) is the facility cost for the STAA analysis (practicality study). The analysis did not distinguish between in-house labor or consultants, but just attributed an overall cost. For more information on the specific approach and data, please refer to Appendix D in the RIA.

Comment: An industry trade association disagreed with EPA's finding that the proposed STAA requirements will improve safety. The commenter stated that these provisions are not cost-effective (0537).

EPA Response: EPA disagrees. EPA believes that the STAA should identify potential process changes including IST that, if implemented, would result in owners or operators using less hazardous substances, minimizing the amount of regulated substances present in a process, moderating process conditions, reducing process complexity, or implementing passive, active, or procedural changes to make processes safer. Such changes help prevent accidents by either eliminating the possibility of an accidental release entirely, by making a process more fault-tolerant, such that a minor process upset or equipment malfunction does not result in a serious accidental release, and by reducing the severity of releases that do occur. The STAA provision will not actually require the owner or operator to implement any changes, so it will only provide benefits if the facility voluntarily decides to implement changes.

7.1.6. Emergency response program coordination with local responders' costs

7.1.6.1. Emergency response program costs

Comment: Multiple industry trade associations and facilities claimed that EPA's estimate of costs for emergency response coordination activities is too low. Commenters stated that EPA failed to include ongoing operational costs associated with non-responding facilities becoming responding facilities and asserted that this provision is not cost-effective (0363, 0489, 0521, 0528, 0555, 0560, 0594). Another reiterated this claim with particular attention to small facilities and noted that EPA failed to include accurate costs associated with firefighting and other emergency response equipment (0466, 0554, 0555, 0594).

Industry trade associations commented that the proposed provision to allow LEPCs to request that non-responding sources develop an emergency response program is unnecessarily burdensome and duplicative (0529, 0561, 0587). Industry trade associations argued that EPA's proposed requirement for all Program 2 and 3 facilities to develop emergency response programs is not cost-effective (0562).

> **EPA Response:** EPA is not finalizing the proposed rule provisions that it believes would have resulted in many sources developing emergency response programs. Therefore, these "new responder" costs were not included in the RIA for the final rule.

7.1.6.2. Annual coordination burden

Comment: Several commenters, including industry trade associations, association of government agencies, and facilities, stated that EPA's cost estimate for annual emergency response coordination activities are too low (0554). An industry trade association claimed that EPA's estimate of the costs imposed on LEPCs is inaccurate because EPA failed to estimate the costs of document maintenance, emergency response drills and exercises, and public meetings for LEPCs (0363). Another claimed that costs will overwhelm LEPCs (0594).

> **EPA Response:** EPA incorporated the emergency coordination cost information into the revised economic estimate in the RIA for the final rule. EPA also revised its estimate for this element to account for the fact that changes to the annual coordination provision in the final rule, as well as the Agency's decision not to finalize a portion of the information availability provisions of the proposed rule, may result in greater information exchange occurring during annual coordination meetings than was estimated under the proposed rule. Under the information availability provisions of the proposed rule, the owner or operator would have been required to annually provide certain information to local emergency responders. The final rule will not include this provision; however, the annual coordination provisions in the final rule will require the owner or operator to provide local response officials with information relevant to emergency planning upon request. The net effect of these changes was to more than double the estimated costs of the annual emergency response coordination provision of the final rule.

Comment: An association of government agencies claimed that LEPCs, particularly those in smaller communities, will have trouble achieving compliance with the new emergency response program requirements without additional funding from EPA (0553).

> **EPA Response:** The rule will not impose mandatory requirements on LEPCs. For the majority of provisions, EPA does not expect that any burden will placed on LEPCs. For those that will involve LEPC involvement – rule familiarization, coordination, and exercises – EPA expects that involvement will be minimal and can certainly be addressed within current staffing levels. To the extent that LEPCs have a responding facility in their community and may choose to participate in some portion of exercises, the agency expects that much of this involvement is already occurring, but took a conservative approach in the analysis.

7.1.7. Facility exercise costs

Comment: A facility commented that emergency response field exercises would be more costly than EPA estimated for owners/operators (0497). Another commenter claimed EPA underestimated the cost of field exercises (0579).

A few commenters submitted alternate cost estimates for this provision (0363, 0579, 0594).

An association of government agencies, a local agency, two facilities, and two industry trade associations commented that field exercises and tabletop exercises are overly burdensome to communities without providing more detailed analysis of specific costs (0510, 0500, 0530, 0527, 0538, 0542). An industry trade association and a facility requested that EPA mandate only tabletop exercises, not field exercises, due to the significant costs and comparatively low benefits of live exercises (0555, 0560). Another industry trade association stated that annual tabletop exercises are costly to LEPCs and are unnecessary at many facilities (0594). One commenter stated that the notification exercises specifically represent an unnecessary burden on facilities and responding organizations (0592).

A state agency stated that while annual field exercises will be costly to local emergency responders in some areas, exercises are an important element of the program and the commenter feels that the costs are justifiable (0586).

> **EPA Response:** As a result of these comments, EPA determined that its NPRM cost estimate for large complex facilities was inflated, and lowered its estimate to better reflect industry experience. The Agency also modified the exercises provision to reduce the expected burden. While the proposed rule would have required a field exercise every five years with annual table top exercises during the other four years, the final rule will only require a field exercise for responding facilities every ten years and a tabletop exercise every three years. This will significantly reduce the burden to be incurred. The net effect of the structural changes to the final rule and EPA's adjustment of its cost estimation approach resulting from public comments was to substantially reduce the estimated costs of this rule provision.

Comment: Industry trade associations and facilities said that local emergency response providers lack the resources to undergo exercises (0527, 0531, 0536, 0537, 0569).

> **EPA Response:** In response to comments, EPA revised the exercise requirements to allow local emergency responders an opportunity to provide input on the frequency of exercises. This allows consideration of local responder availability when scheduling and performing exercises. Although participation will be voluntarily, EPA encourages local emergency responders to join in planning and exercising with RMP -regulated sources. One of the benefits of an exercise comes from coordination between the community and the facility. EPA expects that exercises will involve existing resources and will not require (or at least should minimize) expenditures by local responders.

7.1.8. Information availability costs

Comment: An industry trade association claimed that EPA's estimate of costs for preparing chemical hazard information for public consumption is inaccurate as it fails to include the costs of corporate personnel and legal counsel reviewing information to remove security sensitive information (0363, 0594). An industry trade association commented that EPA failed to provide estimates for costs to facilities or

local emergency responders and the potential security risks to communities, responders, and facilities associated with the proposed information disclosure requirements (0500).

Numerous industry trade associations and a facility claimed that EPA's estimate of costs associated with public meetings is inaccurate because it fails to include LEPC and facility staff time devoted to public meetings and inaccurately estimates the cost of renting a facility (0363, 0492, 0495, 0579, 0594).

An industry trade association requested that EPA reconsider proposed disclosure and notification requirements, which it claimed would be overly burdensome compared to the benefit provided (0458).

> **EPA Response:** Based on these comments, EPA is revising the information availability requirements to reduce the burden to regulated entities and increased its cost estimate for the public information availability provision for large complex facilities. EPA disagrees that its cost estimate for public meetings does not account for facility staff time – EPA assumes a total of 20 labor hours for simple facilities (8 management hours, 8 engineering staff hours, and 4 production staff hours) and a total of 40 labor hours for large complex facilities (16 management hours, 16 engineering staff hours, and 8 production staff hours). EPA did not include LEPC time in its cost estimate because the final rule does not place any public meeting requirements on LEPCs. EPA did not change its cost estimate for public meeting space because these commenters' high estimates of the costs of public meeting space did not comport with EPA's research and prior experience with the costs of public meetings. In order to estimate the costs associated with meeting space, EPA obtained market rates of space rental from a sample of facilities across the country that would be suitable for hosting a public meeting. The average of these values was used in the RIA, and EPA believes it is a conservative estimate for the costs, given that many facilities could find free or reduced costs for public venues.

7.1.9. Other comments on cost-benefit analysis

7.1.9.1. Comments on cost estimates Environmental Protection Agency did not include

Comment: An industry trade association claimed that EPA did not perform a cost-benefit analysis on Section VII of the proposed rule and an analysis should be included in the RIA (0536).

An industry trade association claimed that EPA failed to estimate the costs associated with revised registration requirements. The commenter claimed that the proposed rule constitutes a new recordkeeping requirement that should be included in the cost estimate (0363, 0594).

An industry trade association commented that EPA's cost estimates ignore ongoing training requirements to maintain facility capacities (0554).

An industry trade association stated that EPA's data disclosure requirements create a foreseeable risk of unintentional data disclosure to malicious parties that must be quantified (0554).

> **EPA Response:** In general, the cost elements analyzed represent provisions of the rule that will incur net new costs as a result of implementation. To the extent that the rule will require other actions – revised registration requirements, recordkeeping, etc. – the Agency either believes that these will be similar to what was required in previous iterations of the RMP rule or will be de minimis.

7.1.9.2. Comments on the process used by Environmental Protection Agency to develop the cost-benefit analysis

Comment: An industry trade association stated that EPA did not meet the procedural requirements for completing a robust RIA (0536). An industry trade association stated that EPA has not satisfied its obligations under EO 12866 by not clearly identifying a baseline and not examining alternative regulatory approaches (0536). An industry trade association commented that EPA did not calculate a sufficient analytic baseline, thereby making the estimation of benefits and future costs avoided unreliable (0579). An industry trade association argued that EPA did not discuss market failure and did not follow the quality guidelines of OMB Circular A-4 due to its failure to establish a baseline (0537). Multiple industry trade associations stated that EPA should adhere to quality standards in OMB Circular A-4, specifically providing more information on the incremental benefit of each component of the proposed rule (0579).

An industry trade association claimed that current regulatory requirements effectively minimize the risk of accidental chemical releases and that EPA failed to show that the proposed regulation's benefits outweigh costs (0567).

A private citizen requested that EPA consider a broader view of social cost accounting in its analysis (0314).

> **EPA Response:** Although EPA did not specifically separate out a "no change" baseline alternative, the discussion of final rule provisions indicated how each provision differs from the baseline "null" scenario and indicated that costs calculated represent incremental costs above the current baseline. The analysis calculated three alternative scenarios consisting of low, medium, and high options for each provision. Baseline accidents for the purposes of discussing benefits are discussed in chapter 6 of the RIA. The final rule analysis has further added a section to discuss market failures.

7.2. Paperwork Reduction Act

7.2.1. General comments

Comment: Several industry trade associations asserted that EPA systematically underestimated the burden of the proposed information collection (0358, 0363, 0368). An industry trade association claimed that the Information Collection Request (ICR) omitted the burden of information collection associated with response costs and employee job history (0368). Another industry trade association stated that EPA underestimated the paperwork burden associated with STAA (0364).

Numerous industry trade associations stated that in the ICR, EPA failed to demonstrate the practical utility of the proposed information collection. The commenters stated that EPA's justification failed to meet OMB's standards and many proposed provisions including STAA, compliance audits, and use of compliance audit reports lack practical utility. The commenters also stated that EPA failed to show that the proposed information collection is the least burdensome approach and not duplicative (0358, 0361, 0363, 0364, 0368, 0594).

An industry trade association stated that EPA's timeline for the proposed rule did not include enough time for the Agency to properly consider public comments received on the ICR (0362).

An industry trade association stated that EPA's burden estimates in the ICR are inconsistent with the proposed rule requirements and therefore OMB should disapprove the ICR or require revisions (0363, 0594). An industry trade association argued that OMB should disapprove the ICR (0594). An industry trade association commented that facilities should be given time to review and comment on the ICRs prepared for EPA's RMP proposed rule and OSHA's PSM proposed rule (0364). An industry trade association stated that OMB must review the ICR with special attention to CBI, security, and privacy concerns. The commenter claimed that the proposed ICR poses a threat to CBI and public security without a compelling reason for the information disclosure (0594).

> **EPA Response:** EPA agrees that we underestimated the burden of the proposed information collection and revised our estimates for the final rule. In the ICR for the proposed rule, EPA indicated that documenting RMP implementation is necessary to assist government agencies in determining whether a source has complied with the regulations. In some cases (e.g., safety information and operating procedures), the documentation will be a critical requirement of the rule and will provide the basis for other rule elements. The documentation will also be important to provide a basis for the facility's ability to ensure implementation (e.g., training and maintenance records), to audit compliance, and to review past activities. Furthermore, records of past analyses can limit the burden of updates by reducing the need to repeat analyses for elements that are unchanged since the previous review.
>
> Further, EPA explained in the ICR for the proposed rule why this approach is the least burdensome and not duplicative of current requirements. EPA believes that revisions to the rule will address security and privacy concerns and EPA does not believe the requirements will pose a threat to CBI. CBI substantiation should accompany submission of an RMP.

7.2.2. 10 percent assumption

Comment: Many industry trade associations argued that EPA's assumption that 10% of the overall burden hours for third-party audits, the STAA requirement, and/or root cause analysis would be devoted to information collection is incorrect, and suggested that the assumption should be changed to state that 100% of burden hours would be devoted to information collection. Consequently, ICR costs for these provisions would be multiplied by 10 (0362, 0363, 0364, 0603).

> **EPA Response:** EPA agrees and made this correction in the ICR for the final rule.

7.2.3. Comments on Information Collection Request estimates for specific provisions

Comment: An industry trade association stated that the ICR failed to account for increased in-house resources that would be necessary for compliance with the proposed third-party audit requirements (0363, 0594).

An industry trade association claimed that EPA's estimate in the ICR of four hours of facility time and four hours of LEPC time to coordinate and develop an emergency response program is too low (0363, 0594). An industry trade association stated that EPA's assumption that only management time is considered in the ICR for conducting tabletop and field exercises is inadequate because it fails to include other production staff that would participate in information collection tasks related to exercises and underestimates the amount of management time that would be required (0363, 0594).

An industry trade association commented that the estimated cost of information disclosure requirements is underestimated by EPA and needs to be revised upwards (0363, 0594). An industry trade association stated that the cost of information collection requirements to LEPCs is inappropriately low (0363, 0594).

An industry trade association claimed that EPA's estimate of information collection burdens associated with rule familiarization requirements is too low (0363, 0594).

> **EPA Response:** EPA agrees that we underestimated the burden of the proposed information collection and revised our estimates for the final rule.

7.3. Regulatory Flexibility Act

7.3.1. General comments

Comment: A Federal elected official, Federal agency, facility, and multiple industry trade associations commented that EPA is not fulfilling its obligations under the Regulatory Flexibility Act because the Agency did not provide itself with enough time to consider the comments of either the SBAR panel report or the SERs in the proposed rule (0457, 0458, 0461, 0462, 0476, 0502, 0531, 0544, 0554, 0559). Many of these commenters asked that the SBAR panel recommendations be incorporated in the final rule (0570).

A facility stated that the proposed rule will be burdensome to small facilities (0531). An association of government agencies expressed concern that the costs of a more prescriptive RMP will fall on small communities (0432, 0571). A Federal agency commented that paperwork recordkeeping requirements, third-party audits, and root cause analyses for incident investigation should be amended to provide flexibility and reduce burden for small businesses (0502). An industry trade association and Federal agency claimed that the proposed rule imposes a disproportionate burden on small facilities and asserted that EPA should eliminate impractical, unjustifiable, or non-cost-effective requirements (0462, 0502). Several industry trade associations and a facility commented that the proposed rule will result in more facilities being required to become responders, which will be costly and difficult for small businesses (0521, 0555, 0560, 0561, 0587).

Multiple facilities commented that EPA should withdraw its proposed rule and coordinate more closely with OSHA's PSM rulemaking (0570, 0573). An industry trade association stated that OSHA's PSM program and EPA's RMP proposal is creating confusion for small entities in the water sector. The commenter asked that EPA update guidance documents and delay further development of RMP revisions until OSHA'S PSM SBAR panel process is complete (0554).

> **EPA Response:** EPA disagrees that the Agency did not fulfill its obligations under the Regulatory Flexibility Act or that the Agency did not consider the comments of the SBAR panel and SERs in the proposed or final rules. In many locations throughout the proposed rule, EPA discussed SBAR panel recommendations and requested public comments on regulatory alternatives recommended by the SBAR panel. EPA is also making numerous adjustments to the final rule to incorporate regulatory alternatives that were suggested by SERs where those alternatives were also supported by public comments and were consistent with the Agency's policy goals. For example, EPA is incorporating SBAR panel recommendations by relaxing the

competency and independence criteria for third-party auditors; reducing the frequency for conducting facility exercises; and not finalizing the proposed revision to the definition of catastrophic release.

EPA also disagrees that the final rule will be disproportionately burdensome on small entities. In fact, the costliest final rule provisions – STAA and facility exercises – will affect relatively few small entities. EPA is minimizing the effect of the STAA provisions on small entities by applying these requirements to a narrowly-defined set of facilities in three select industry sectors. EPA is minimizing the impact of the exercise requirements on small entities by applying these requirements only to responding facilities, which tend to more often be large facilities. EPA is also removing language from the final rule that would potentially have required numerous small entities to become responding facilities.

Regarding comments requesting that EPA withdraw its rulemaking and coordinate more closely with OSHA, EPA notes that it did coordinate with OSHA in the development of the proposed and final rules, and that OSHA has also completed a SBAR panel as an initial step toward proposing potential changes to the PSM standard, which may include some changes that are similar to those in this rule. However, EPA does not believe it is necessary for the Agency to conduct its rulemaking on exactly the same timeline as OSHA.

7.3.2. Third-party audits

Comment: A facility and an industry trade association stated that EPA's assertion that the proposed requirements for third-party audits will have "fairly low impact on small businesses" is false and the requirement should be withdrawn entirely (0461, 0462). Another industry trade association commented that third-party audits will be especially costly to small facilities (0476). An industry trade association commented that the requirement for third-party audits will lead to a lack of auditor availability, a particularly difficult problem for small businesses (TRANS-11).

EPA Response: EPA disagrees that the final rule's third-party audit requirements will have a disproportionately high impact on small businesses. EPA notes that the third-party audit provisions will only affect facilities under limited circumstances, including if they experience an RMP reportable accident. Over the last ten years, RMP facilities reported approximately 150 accidents per year, and over 75% of these accidents occurred at large businesses.[83] Based on comments expressed by SERS and others, EPA is also relaxing the final rule's independence criteria to allow the owner or operator to use third-party audit teams that include some non-independent members, including employees of the stationary source being audited. Also, the final rule will allow a third-party audit team to include retired employees of the facility being audited if their sole continuing financial attachments to the owner or operator are employer-financed or managed retirement and/or health plans. The audit team can also include other persons who previously provided consulting services as an employee or contractor of the owner or operator, provided those services were not provided within the last two years (whereas the proposed rule would have required a three-year prohibition on previous employment). EPA

[83] EPA, 2016. Regulatory Impact Analysis – Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7). Exhibit 7-9.

believes these changes will increase the availability of auditors and therefore make third-party audits more cost-effective for small business owners.

Comment: A Federal agency suggested that third-party audits are too burdensome for small businesses and should be eliminated or reduced significantly in scope. The commenter argued that the requirements are duplicative of the existing requirements for self-audits and incident investigations and suggested that EPA waive the requirements if an implementing agency conducts an inspection as a result of a reportable release or facility noncompliance (0502).

EPA Response: EPA disagrees that third-party audits are duplicative of existing requirements. Following an accident, incident investigations often reveal that facilities have deficiencies in some prevention program requirements related to that process. Incident investigations generally only evaluate the affected process, and do not necessarily address all covered processes at a facility, or even all prevention program elements for the affected process. However, compliance audits entail a systematic evaluation of the full prevention program for all covered processes, and EPA expects that third-party audits should identify deficiencies in any other covered processes at such facilities.

Additionally, EPA does not agree that third-party audits should be waived if EPA conducts an inspection. Third-party audits do not constitute enforcement, nor do they substitute for inspections by implementing agencies. The audits are designed primarily to benefit owners or operators by assisting them to identify both actual noncompliance as well as operational or equipment deficiencies, previously unidentified risk factors, and accident release and/or regulatory noncompliance precursor conditions which, if uncorrected, could lead to releases and/or enforcement actions. Proactively addressing deficiencies, risk factors, and precursor conditions to accidental releases and regulatory noncompliance will provide financial, regulatory, and environmental benefits for facility owners and operators, including small businesses, and communities.

Finally, EPA is reasonably targeting third-party audit requirements at facilities that have had RMP reportable incidents that may demonstrate weaknesses in prior self-assessments and at facilities of heightened concern for implementing agencies. Most small businesses do not have RMP reportable releases and the implementing agency criterion will focus on conditions with the potential to lead to accidental releases, rather than authorizing implementing agencies to require third-party audits under a potentially wide range of circumstances, including minor noncompliance. Therefore, EPA does not expect that this provision will be burdensome for small facilities.

Comment: A Federal agency expressed concerns with the auditor qualifications in the proposed rule, arguing that it would be difficult to find auditors with no financial connection to the facility (such as retirees). The commenter recommended that EPA allow small businesses with less than 250 employees to submit a waiver request of the independence criteria based on limited availability of independent auditors (0502).

EPA Response: In order to address concerns about the availability of auditors, EPA is modifying the third-party auditor qualification criteria in the final rule to enable more firms and

individuals to qualify as third-party auditors or third-party audit team leaders. The most significant modification to the third-party auditor qualification criteria is that only employees of the independent third-party audit firm must meet the independence criteria of §§ 68.59(c)(2) and/or 68.80(c)(2). For third-party audit teams, the team leader must meet both the competency and independence criteria of paragraph §§ 68.59(c) and/or 68.80(c), and all other employees of the third-party auditor firm that participate on the team need only meet the independence criteria. Third-party audit teams may also include other personnel, such as consultants or facility employees, and these personnel will not be subject to the third-party qualification criteria of the final rule.

EPA is also revising the timeframe within which third-party auditors cannot provide business or consulting services to two years. EPA is adding language indicating that if a third-party firm employs personnel who have provided business or consulting services to the facility within the prescribed timeframe (i.e., within two years of the audit), then the third-party audit firm must ensure that these personnel do not participate on the audit team. Additionally, EPA is clarifying in regulatory language the circumstances in which a retired employee may participate in a third-party audit and deleting the PE requirement from the final rule. Viewed as a whole, these changes will serve to increase the types of personnel who may potentially serve as independent third-party auditors. Therefore, EPA believes it will be unnecessary for facility owners or operators to petition for a relaxation of auditor qualifications.

7.3.3. Facility exercises

Comment: Multiple state agencies and facilities and a Federal agency commented that the increase in mandatory field exercises for Program level 2 and Program level 3 facilities would adversely affect small RMP facilities and small communities (0417, 0452, 0502, 0538, 0560). An industry trade association stated that the proposed rules for facility coordination with local responders should be more flexible based on the size of the community and its existing local response capabilities (0529).

A consultant/engineer stated that small utilities who lack a local emergency agency with first responder capabilities will have difficulty meeting the proposed requirements. The commenter requested that EPA exempt small entities from the emergency response program requirement and offer increased assistance to LEPCs in small communities (0423, 0490).

A Federal agency stated that LEPC concerns should be addressed in a guidance document instead of a rulemaking (0502).

EPA Response: EPA notes that the final rule will include significant changes to the exercise requirements to address concerns expressed by the SBAR panel, individual SERs and other commenters. First, the final rule will allow owners and operators to work with local response officials to establish an exercise schedule that works for both parties, provided the owner or operator holds a field exercise at least once every ten years, and a tabletop exercise at least once every three years. Second, the field and tabletop exercise requirements will only apply to responding facilities, so non-responding facilities, which include the majority of small businesses regulated under the RMP rule, will not be required to comply with them. Lastly, EPA is not

finalizing proposed rule provisions that would have required many small businesses to become responding facilities.

Comment: A Federal agency recommended requiring small businesses to only conduct tabletop exercises and eliminate the field exercises requirement of the proposed rule (0502).

EPA Response: EPA is requiring that responding facilities conduct both tabletop and field exercises; however, we are revising the frequency to reduce the burden on all facilities. The rule will require the owner or operator to conduct both tabletop and field exercises involving a simulated accidental release of a regulated substance. As part of the coordination with local emergency response officials required by § 68.93, the owner or operator will be required to consult with these local officials to establish an appropriate frequency for tabletop and field exercises. However, in all cases, the owner or operator must conduct a field exercise at least once every ten years and a tabletop exercises at least once every three years. Additionally, EPA encourages several nearby or adjacent facilities to conduct joint exercises, and this may prompt small facilities to pool their response resources, thereby reducing the exercise and emergency response burden on each facility.

7.3.4. Public meetings and information disclosure

Comment: A Federal agency stated that the public meeting requirement should include small business flexibility, allowing small businesses to post the required information to be disclosed instead of organizing a public meeting. The commenter also suggested that EPA should provide a longer time period for holding a public meeting to allow the owner or operator more time to gather information and adequately prepare for the meeting (0502).

EPA Response: While EPA is not implementing the recommendation to allow small businesses to post required information in lieu of holding a public meeting, EPA notes that the public meeting requirement will only apply to facilities after an RMP-reportable accident, which will minimize its impact on small businesses. Also, EPA is revising the public meeting requirements to extend the timeframe within which the meeting must be held (from 30 to 90 days after an RMP reportable accident). EPA believes that small businesses should host public meetings following an RMP reportable accident to allow community members an opportunity to talk with facility personnel. EPA encourages small businesses to find ways to reduce costs of public meetings such as by hosting the meetings at inexpensive venues, such as local schools, community centers, or churches.

Comment: A Federal agency recommended that EPA improve public awareness of existing sources of information through its own website or other public forums rather than requiring small businesses to repackage existing information. Alternatively, the commenter suggested requiring facilities to indicate where this information can be obtained (0502).

EPA Response: The final rule will require the owner or operator to make certain chemical hazard information for all regulated processes at a stationary source available to the public upon request. The facility must provide ongoing notification to the public about what chemical hazard information is available upon request, how the public may obtain such information, and where to

access any other available information on community emergency preparedness. The facility owner or operator must provide information to the requester within 45 days of receiving a request.

7.3.5. Incident investigations and root cause analysis

Comment: A Federal agency recommended that EPA limit the scope of this requirement to apply only to reportable releases in order to reduce the burden on small businesses. The commenter further recommended that EPA retain the existing definition of catastrophic release (0502).

EPA Response: EPA is finalizing the scope of the incident investigation requirement to apply to an incident that resulted in a catastrophic release or could reasonably have resulted in a catastrophic release (i.e., a near miss). However, EPA is not finalizing the proposed definition for catastrophic release and is instead maintaining the existing definition. In the final rule, EPA is clarifying what we mean by near miss to address uncertainty about the term.

7.3.6. Safer technology and alternatives analysis

Comment: A Federal agency recommended mandating an IST analysis only at the design stage of new processes. Alternatively, to reduce the burden for small entities, the commenter recommended delaying the provision for small firms (with less than 250 employees) until three years after the rule's compliance date for larger firms in order to allow EPA a chance to review the utility of the provision. The commenter also recommended that EPA exclude processes that are governed by specifications established by a government agency or by a customer through a contractual relationship (0502).

EPA Response: EPA is finalizing the STAA provision as proposed. EPA disagrees that STAA analyses should only be required during the initial design phase of a facility. While the greatest potential opportunities for using IST occur early in process design and development, many IST options may still be practicable after the initial design phase. Furthermore, STAA involves more than just IST. Safer technology alternatives also include passive measures, active measures, and procedural measures, and these measures can be modified and improved after the initial design of a facility. EPA notes that many RMP-regulated facilities were originally constructed decades ago, yet major enhancements have been reported in some plants that have been operating for many years.[84] CCPS explains that inherently safer strategies can be evaluated throughout the lifecycle of a process, including operations, maintenance and modification, and EPA agrees with this approach.

EPA also disagrees with the suggestion to exempt certain groups (such as batch toll manufacturers) from the STAA requirement. Safer technology alternatives include many options beyond chemical substitution or minimization. Therefore, even where a contractual relationship or regulation requires a regulated batch toll manufacturing facility to use a particular regulated substance in specified quantities, owners and operators of batch toll manufacturing facilities may still consider other potential safer alternatives, such as passive, active, or procedural measures. Also, the final rule will not require regulated sources to implement IST or ISD considered, so

[84] CCPS. 2009. Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd ed., American Institute of Chemical Engineers, CCPS New York, Wiley, p. 25.

there will be no conflict between this final rule and other regulations that may apply to RMP-regulated facilities subject to STAA requirements. For example, an owner or operator would be in compliance with this rule if he or she determines that a chemical substitution is not practicable if the substitution is prohibited by another regulation.

Finally, EPA is not delaying compliance dates for small businesses to allow time for evaluating the provision at large facilities. STAA for a source is a site-specific determination and would be difficult to compare among facilities. EPA believes it would be impractical to gather/analyze information on STAA implementation to determine the utility of the provision for small facilities.

7.3.7. Emergency response program coordination with local responders

Comment: A Federal agency recommended that EPA adopt compliance flexibility for small businesses by limiting their responsibility to making good faith efforts to coordinate with local responders. The commenter further suggested that EPA remove the provision to allow LEPCs to require sources to develop emergency response programs. The commenter also suggested that EPA provide guidance to local responders, rather than expand existing regulations, and focus on implementing and enforcing emergency planning requirements for LEPCs. Finally, the commenter recommended providing guidance on expectations for coordination between a facility and local responders as well as clarifying a facility's obligations for preparing an emergency response program (0502).

EPA Response: EPA is not finalizing the provision that would have required the source to develop an emergency response program following a written request from the LEPCs or local response authorities. Furthermore, the final rule will clarify requirements for coordination activities between facility personnel and local responders. EPA understands some communities do not have functional LEPCs, but has accounted for this possibility by requiring coordination to be with "local emergency planning and response organizations." This term is intended to encompass all manner of local public emergency planning and response organizations. In many cases this will be the LEPC, but in other cases it may be a local emergency management agency, a local fire department, or another local response organization. These non-LEPC planning entities can use this provision to obtain necessary planning information even when they lack the authority granted LEPCs under EPCRA 303(d)(3). Regardless of whether or not their community has an active LEPC, EPA expects owners and operators of regulated sources to make good faith efforts to carry out the coordination activities required in the final rule. If local emergency planning and response organizations decline to participate in coordination activities, or the owner or operator cannot identify any appropriate local emergency planning and response organization with which to coordinate, the owner or operator should document their coordination efforts, and continue to attempt to perform coordination activities at least annually.

The rule will also clarify requirements for facilities that must develop an emergency response program in accordance with § 68.95. Responding facilities must comply with all of the provisions of § 68.95, which include developing an emergency response plan, developing procedures for the use, inspection, and testing of emergency response equipment, conducting training for employees in relevant procedures, and updating the emergency response plan to reflect changes at the source. Any facility that plans to use its employees to take response actions beyond those specified in its emergency action plan under 29 CFR 1910.38 as a result of an

accidental release at the source – which could include, for example, donning emergency air breathing apparatus in order to enter an area where a toxic gas leak has occurred with the intention of stopping or controlling the release – would be expected to have obtained appropriate equipment and training, and to address these activities in its emergency response program, even if the facility is also relying on local responders to supplement its own response, or to manage offsite response actions such as evacuations and sheltering-in-place.

7.4. Unfunded Mandates Reform Act

Comment: Several commenters, including state agencies and a professional organization, said that the proposed rule adds to the unfunded mandate for LEPCs, which were never provided with any source of federal funding (0360, 0417, 0452, 0490, 0539, 0553). A few state agencies said that the proposed field exercises in particular will be a significant unfunded cost for LEPCs that choose to participate (0417, 0490). A state agency, an industry trade association, and an association of government agencies commented that these additional costs will adversely affect smaller RMP facilities and smaller communities with municipal-owned RMP facilities (0417, 0553, 0554). The industry trade association also suggested that EPA should consult with these municipal governments on the impact these proposed requirements will have on their operating budgets (0554). A professional organization stated that very few LEPCs are able to support themselves with fees or other taxes on regulated facilities (0360).

EPA Response: EPA disagrees that this final rule will add to the burden to LEPCs and local emergency response organizations. EPA believes that the amendments to the local coordination requirements will clarify existing requirements. LEPCs are required to develop community emergency response plans, and the revisions to the RMP rule are intended to ensure that facility representatives coordinate with LEPC and local emergency response officials in developing those plans. Furthermore, EPA is providing flexibility in the final rule to allow LEPC and local emergency response officials to participate as their schedules allow. LEPC and local emergency response officials are encouraged, but not required, to participate in facility exercises.

EPA agrees that the final rule will bear costs for small facilities and small governments; however, EPA is building flexibility into the rule provisions to allow facility owners and operators to tailor their RMPs to their facility specific circumstances. Public meetings will apply only following an RMP reportable accident, and root cause analysis will apply only after a catastrophic release (e.g. an RMP-reportable accident) or after an incident that could reasonably have resulted in a catastrophic release. STAA analyses will be limited to specific NAICS codes, and exercises will apply only to responding facilities. EPA is further revising information availability requirements to be provided only upon request by a member of the public. These provisions should minimize costs of the final rule for small facilities.

7.5. Federalism (Executive Order 13132)

Comment: An industry trade association asserted that EPA's proposal to allow local authorities to request that the owner or operator assume emergency response obligations, which the commenter argues divorces these organizations from their Federal, state, and/or local legal obligations, raises Federalism

issues by undermining the fundamental mission of those entities and state delegations of more (or less) authority to local emergency response organizations (0598). Similarly, other industry trade associations commented that EPA's proposed delegation of authority to LEPCs to designate facilities as responding stationary sources raises significant separation of powers and federalism concerns. As the basis for this argument, the commenters relied primarily on the Supreme Court decisions in *Printz v. United States* (521 U.S. 898 (1997)) and *New York v. United States* (505 U.S. 144 (1992)), in which the court held that Federal agencies cannot "commandeer" local governments to implement Federal regulatory programs (0492, 0579).

A few commenters, including an associations of government agencies and an industry trade association, commented that the Agency had missed a valuable opportunity to engage local governments prior to the rule's publication, which the commenter described as counter to EPA's internal "Guidance on EO 13132: Federalism" (Nov. 2008) that specifies that States and local governments must be consulted on rules if they impose substantial compliance costs, preempt state or local laws, and/or have substantial direct effects on state and local governments (0432, 0553, 0571). Because the commenter does not believe that EPA has adequately engaged local government agencies, an association of government agencies requested that EPA delay advancing the proposed rule and perform a local government impact analysis and consultation with the nation's cities, counties, and mayors before finalizing the rule (0553).

> **EPA Response:** EPA is finalizing requirements for the stationary source owner or operator to coordinate annually with local emergency planning and response officials to ensure that the stationary source is included in the community emergency response plan (for toxic substances) and/or to coordinate response activities with local emergency responders (for flammable substances). However, after considering concerns raised by commenters related to providing LEPCs with the authority to require a stationary source to develop an emergency response program in accordance with § 68.95, EPA is eliminating this provision from the final rule. EPA did not intend this provision to undermine the fundamental mission of response agencies nor as a delegation of Federal authority. EPA expects that some stationary source owners or operators will self-identify a need to develop an emergency response program if the result of local coordination indicates that the stationary source is not included in the community emergency response plan (e.g., when an LEPC is inactive and there is no community emergency response plan or the existing plan is outdated).
>
> EPA disagrees with comments that suggest that EPA did not engage local governments prior to the rule's publication. EPA followed the agency's internal guidance on EO 13132 when determining whether to initiate consultation with state and local governments. Furthermore, through EO 13650 listening sessions, webinars, consultations, and a public hearing, EPA has engaged states and local communities to discuss chemical safety issues. Additionally, EPA has consulted with states and local communities through participation in the National Association of SARA Title III Program Officials (NASTTPO) annual meetings to discuss key issues related to chemical facility and local community coordination and what areas of the RMP regulations need to be modernized to facilitate this coordination and improve local emergency preparedness and prevention.

7.6. Consultation and Coordination with Indian Tribal Governments (Executive Order 13175)

EPA did not receive any comments on this issue.

7.7. Protection of Children from Environmental Health Risks and Safety Risks (Executive Order 13045)

EPA did not receive any comments on this issue.

7.8. Actions That Significantly Affect Energy Supply, Distribution or Use (Executive Order 13211)

EPA did not receive any comments on this issue.

7.9. National Technology Transfer and Advancement Act

EPA did not receive any comments on this issue.

7.10. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898)

7.10.1. Comments on access to information

Comment: Many commenters, including an environmental advocacy coalition of approximately 140 commenters, stated that communities need better transparency and access to information on hazards and investigations, training on response plans, and access to inspection and incident reports (0507, 0574, 0575, 0543, TRANS-09, TRANS-19). Many commenters, including an environmental advocacy coalition of approximately 140 commenters and advocacy groups, commented that the rule should include specific elements to address disproportionate impacts (0575, 0543). Many commenters, including an environmental advocacy coalition of approximately 140 commenters and advocacy groups, said that EPA should create a centralized database available through a website and local community centers and libraries that provides this information (0507, 0575). A facility commented that a website is a poor method to communicate information to individuals in poor or rural communities that may not have access to computers or the Internet. The commenter also said that LEPCs already hold public meetings to discuss emergency plans (0492).

Many commenters, including advocacy groups and an environmental advocacy coalition of approximately 140 commenters, stated that the RMP rule fails to ensure that at-risk communities near RMP facilities have the information they need to participate effectively in engagement with facilities. The groups also argued that the rule does not improve access to summaries of incident investigation reports, safety audits, and STAA, among other things, which are essential to ensuring fair treatment. Further, the groups commented that at-risk communities are not given access to information on prevention opportunities, and are not invited to participate in prevention analysis and planning (0574, 0575). Another advocacy group said that the RMP rule should facilitate partnerships and interactions between facilities, local governments, and the community (0507). An environmental advocacy coalition of approximately 140 commenters said that EPA should require a community meeting within 30 days of an incident, require publication of response and evacuation plans for affected areas, and establish an appeals process for communities to report when information and engagement opportunities are not provided as required, among other proposals (0575).

EPA Response: EPA agrees with commenters that have requested better access to chemical hazard information at facilities in their communities and improved public transparency. EPA is finalizing a requirement for facility owners and operators to share information with the public that will assist neighboring communities to understand the hazards in their communities. Facility owners and operators must notify the public that specific information is available and provide instructions on how to request that information as well as how to access evacuation and shelter-in-place procedures for the community. Additionally, following an RMP reportable accident, facility owner and operators will be required to host a public meeting within 90 days to communicate information about the accident. This will allow sufficient time for facilities to gather information about the incident to share with the public. EPA believes that these provisions will provide the public with more information that they can use to protect themselves and their families in the event of an accidental release at an RMP-regulated facility.

EPA is including other elements in the final rule that are intended to address disproportionate impacts of a release to surrounding communities. For example, EPA is requiring paper manufacturing, petroleum and coal products manufacturing, and chemical manufacturing facilities with Program 3 processes to analyze safer technologies for each process in order to consider ways to reduce and remove hazards. EPA is also encouraging better coordination between local emergency response organizations and facility representatives annually and during facility exercises, which will lead to more effective community emergency response plans and mitigate the impacts of an accidental release to the surrounding community. EPA encourages facility representatives to attend LEPC meetings along with the public to facilitate partnerships among these representatives.

EPA disagrees with commenters that suggest creating a centralized database available through a website and local community centers and libraries to provide this information. Establishing such a centralized database would be costly and difficult to maintain, information would quickly become outdated, and a centralized database could create security vulnerabilities.

EPA recognizes that some community residents want to participate in prevention planning and have access to incident investigation reports, safety audits, and STAA. However, community input can be effective in other ways that relate to community planning. EPA encourages community residents to become active in their LEPCs who are already working to reduce hazards for local communities. Providing access to facility reports outside of existing community planning activities could result in duplicative work and increased burden for communities, emergency responders, and facility staff.

Furthermore, developing a RMP involves process hazards analyses and hierarchies of controls developed by trained professionals. Investigation reports, safety audits and STAA are often complicated and contain technical jargon, which can be difficult to understand without the proper training. Information in these reports can also reveal security vulnerabilities, which may put communities in greater danger of terrorism if released.

7.10.2. Comments on meaningful involvement

Comment: Many commenters, including an environmental advocacy coalition of approximately 140 commenters and advocacy groups, said that the only meaningful involvement EPA has facilitated included collecting input to shape the proposed rule. The commenters said that there is no analysis in the rule on whether or how the rule would facilitate meaningful involvement by at-risk or environmental justice (EJ) communities (0574, 0575).

> **EPA Response:** EPA believes there were numerous opportunities for the public to provide meaningful input on this final rule. This final rule was developed following extensive public feedback through EO 13650 listening sessions, and public comments on the RFI and the proposed rule. EPA is incorporating requirements in the final rule to prevent accidental releases, mitigate the impacts of releases that do occur, and share chemical hazard information with the public.

8. Other Comments on the Rule

8.1. Expand scope of regulated substances (e.g., to include ammonium nitrate)

8.1.1. List of Regulated Substances

Comment: A mass mail campaign joined by approximately 17,250 commenters stated that EPA should broaden the range of chemicals covered under RMP and account for effects on vulnerable populations including children and the elderly (0480). A union asserted that EPA should update the list of regulated substances and require facilities to "evaluate the risk of a reactive chemical accident and take appropriate measures, even if the chemicals in question are not on the list" (0519).

Multiple facilities and an industry trade association expressed support for EPA's decision not to revise the list of regulated substances and opposition to EPA's suggestion that it may add certain toxic or flammable substances in a separate action (0482, 0484, 0598). One facility opposed the addition of combustible dust to the list, arguing that it is already regulated under OSHA and constitutes a low risk to the public (0484). An industry trade association requested EPA's support and recognition of its voluntary private sector comprehensive inspection and assessment organization and FGAN guidelines for fertilizer retail facilities (0598).

> **EPA Response:** EPA will consider these comments when determining whether to propose revisions to the list of substances.

8.1.2. Ammonium Nitrate

Comment: Several professional organizations and industry trade associations, a Federal agency, advocacy organization, consultant/engineer, state agency, and anonymous commenter requested that EPA consider the danger to the public from AN and other reactive chemicals in its rulemaking (0360, 0403, 0406, 0428, 0536, 0543, 0564, TRANS-08, TRANS-15). A state agency further asked the EPA to ensure that calculations for OCA consider the unique explosive characteristics of FGAN and develop specific RMP guidance for regulated FGAN facilities (0406). A professional organization supported adding AN to the list of regulated substances but requested unique requirements for AN formulated as an explosive or blasting agent and FGAN (0533). An industry trade association claimed that EPA failed to address EO 13650 by failing to address AN in the proposed rule (0536).

An industry trade association argued that EPA does not have statutory authority under the CAA to include FGAN under the RMP, and opposed adding it to the list of regulated substances (0571). An industry trade association supported EPA's decision not to change current threshold quantities and toxic endpoints (0551).

> **EPA Response:** EPA acknowledges that there is both support and opposition to regulating AN and will consider these comments when determining whether to take further action on this issue. In the interim, EPA encourages fertilizer retailers to review and use existing guidance. OSHA compiles several resources on their Fertilizer Industry Guidance on Storage and Use of Ammonium Nitrate webpage at https://www.osha.gov/dep/fertilizer_industry/ .
>
> EPA disagrees with the commenter that indicated that EPA failed to address EO 13650 when we chose not to propose to list AN in the list of regulated substances for the RMP regulations. In the proposed rule, EPA explained that other agencies, including OSHA and DHS, are considering modifications to their regulations, and EPA will coordinate any potential changes to the list of substances in 40 CFR part 68 with the actions of these other agencies.

8.2. Other recommended regulatory actions (not including recommended alternative approaches to revising proposed provisions covered by other issues earlier in outline)

Comment: Along with a few more general comments asserting that EPA needs to do more to prevent or mitigate chemical accidents (0430), many commenters provided recommendations for other regulatory actions that EPA could take to strengthen the RMP program or otherwise enhance safety (0443, 0459, 0474, 0488, 0507, 0574, 0560, 0590). For example, commenters recommended the following:

- Seek to maximize employee participation in RMP processes to ensure that employees and their representatives are involved in all aspects of a facility's management system (0507, 0519, 0575, 0543).
- Increase EPA enforcement efforts for existing requirements (0360, 0456, 0476, 0528, 0584, 0587).
- Pursue funding mechanisms for LEPCs, TERCs, and SERCs and the use of existing legal infrastructure provided by EPCRA to support these agencies engaging the regulated community for pre-planning evolutions and joint training exercises (0464).
- Focus on providing compliance assistance to emergency responders, LEPCs, and facilities and/or industrial sectors with a potential for significant off-site impacts and poor compliance records (0587).
- Increase outreach to outlier facilities by enlarging compliance resources and improving the effectiveness of LEPCs (0339).
- Clarify ambiguity about the meaning of the terms "hazard" and "risk" as used throughout the proposed rule (0467).
- Require facilities to develop and implement a Human Factors program that would consider human factors as part of their incident investigations, MOC process, Operating Procedures, PHA, and Mechanical Integrity prevention elements (0450, 0586).
- Require immediate public reporting of releases that could potentially threaten public health by telephone, radio, and television (0574).
- Require facilities to engage fenceline communities in development of prevention and disaster response plans (0574).

- Require and strengthen hazardous leak detection and require fenceline monitoring at all hazardous facilities to ensure prompt action is taken when a release occurs and to give communities and first responders near hazardous facilities real-time information on hazards as they begin to happen, instead of just after the fact (0471, 0488).
- Utilize a federal advisory committee to fully review potential revisions to the RMP regulations and related programs to make any necessary technical recommendations (0571).
- Phase-out the use of highly dangerous hydrofluoric acid, including a ban on its use by new sources and a requirement to consider and if possible use a safer alternative (0575).
- Take additional actions to address the dangerous properties of LPG (0297).

EPA Response: EPA will consider these comments when we consider future regulatory activities, develop guidance, implement and enforce the RMP.

8.3. Requests for extension of the comment period

Comment: Many commenters requested an extension of the public comment period from 60 days to 90 days (0288, 0289, 0290, 0291, 0295, 0296, 0298, 0299, 0300, 0301). Commenters requested the extension for various reasons, including:

- 60 days was not an adequate amount of time to review and respond to the significant amount of complex material covered in this proposed rule (0288, 0289, 0290, 0291, 0295, 0296, 0298, 0299, 0300, 0301).
- EPA allowed a 90-day comment period for the 2014 RFI, which was presented in a broader context than the current proposed rule (0288, 0289, 0290, 0291, 0298, 0300, 0305, 0306, 0309).
- Several of the underlying documents supporting the rulemaking, including the RFA and RIA, were not made publically available when the comment period opened (0288, 0289, 0290, 0295, 0296, 0309, 0312).

Many commenters also requested an extension of the public comment period for the ICR to allow for adequate time to respond to information in the document, especially given the comment period of the ICR overlaps with the comment period of the rule (0289, 0290, 0291, 0296, 0299, 0300, 0307, 0308, 0310, 0332, 0573).

Several commenters noted the rule seemed to be rushed forward, and that EPA has failed to heed important procedural safeguards to ensure the public a fair opportunity to participate in the rulemaking process (0598, 0531, 0537, 0579, TRANS-10-1). One commenter stated that they had to prioritize which topics they would comment on because of the inadequate comment period (0536).

Several commenters requested that the comment period not be extended, and that the rule be finalized as soon as possible (0329, 0333, TRANS-09-6).

EPA Response: EPA disagrees and did not grant extension requests for both the proposed rule and the ICR. EO 13650, *Improving Chemical Facility Safety and Security*, focuses on reducing risks associated with hazardous chemical incidents. The EO Working Group, led by the EPA, the Department of Homeland Security, and the OSHA, held multiple listening sessions, webinars, and meetings with stakeholder groups to solicit feedback on issues related to chemical facility safety

and security. In addition, the Working Group published a preliminary list of options for improving chemical facility safety and security for stakeholder comment. In the EO 13650 Report for the President entitled *Actions to Improve Chemical Facility Safety and Security – A Shared Commitment*, modernizing the RMP rule was identified as one of the top priorities to improve chemical facility safety and security. The report committed the EPA to conduct a RFI to gather input and begin the regulatory process to modernize the RMP. On July 31, 2014, EPA issued an RFI, seeking comment on potential revisions to modernize its regulations, guidance, and policies.

Since the publication of the RFI, we have held numerous outreach meetings with industry groups and collected information through the SBAR Panel. Thus, EPA's RMP proposal reflects substantial input from stakeholders on the elements of the proposed rule to improve chemical process safety, assist local emergency authorities in planning for and responding to accidents, and improve public awareness of chemical hazards at regulated facilities.

In addition to the proposed rule's 60-day comment period, the EPA made available a pre-publication version on our website two weeks prior to publication. Also via the web, we made available many critical supporting documents, including the RIA, the technical background document, and the SBAR Panel final report and executive summary. Additionally, the pre-publication version of the proposed rule contained numerous footnote references to supporting documents that are otherwise available, including reports of the Chemical Safety Board, EPA accident investigation reports, specific public comments on the RFI, and technical reports and journal articles. In light of the significant outreach efforts described above, as well as the substantial amount of supporting material in the public domain prior to publication of the proposed rule, we believe that the comment period's current closing date allowed sufficient time for all interested parties to develop and submit comments on the proposal.

8.4. Other comments on the NPRM

8.4.1. Other comments expressing support for the proposed rule

Comment: Citing various reasons, several commenters expressed support for the proposed rule (0292, 0373, 0403, 0408, 0415, 0452, 0519). For example, after describing the impacts of the West, Texas fertilizer plant explosion, a few commenters described the proposed rule as a step in the right direction to update the RMP program (0403, 0408). Another commenter cited better protections from toxic chemicals as their basis for supporting the rule (0373). Another commenter stated that if one life is saved by amending the current policies, then the addition of more preventative requirements are well worth the cause (0415).

Although in support of the proposed rule, many commenters, including a mass mail campaign joined by approximately 17,250 commenters, stated that the final rule should go further and provide greater protections to vulnerable communities (0480, 0506).

EPA Response: EPA appreciates the commenters' support. EPA believes the RMP regulations have been effective in preventing and mitigating chemical accidents in the United States, and the

finalized revisions will further protect human health and the environment from chemical hazards through advancement of PSM based on lessons learned.

8.4.2. Environmental Protection Agency has not provided adequate justification for the proposed rule

Comment: Many commenters, including industry trade associations and a facility, asserted that EPA did not provide adequate justification for the proposed rule (0440, 0476, 0492, 0536, 0584, 0544, 0551, 0555, 0590, 0594). An industry trade association stated that EPA has not provided compelling evidence that the current RMP regulations are not effective and need to be revised (0440). Another industry trade association stated that evidence has not been provided showing that the current framework is deficient or that the proposed rule would be effective in reducing circumstances that lead to chemical accidents (0544). Several commenters asserted that the evidence shows that incidence of injuries has been reduced over time and/or that the RMP program as functioned effectively (0492, 0531). A facility asked EPA to clarify why major rules changes are needed if the existing rules have "been effective in preventing and mitigating chemical accidents in the United States," an assertion which the commenter cites the EPA stating numerous times within the proposed rule (0542). An industry trade association stated that EPA has failed to explain why more aggressive enforcement of existing RMP requirements would not meet the goals EPA is trying to achieve through the proposed rule (0555).

An industry trade association asserted that to justify an expansion of the RMP approach, EPA needed to find that: (1) there are material gaps or deficiencies in the scope or requirements of the existing rules; (2) those gaps pose a significant risk of not only material harm, but catastrophic harm, to employees, the public, and the environment; and (3) any changes in those rules are reasonably necessary or appropriate to remedy those gaps (0551).

EPA Response: In the proposed rule, EPA identified specific incidents that demonstrated failures and difficulties in accident prevention, emergency response, and information availability despite the general effectiveness of Part 68. We have applied lessons learned from those incidents in developing the amendments adopted in the final rule. Several of the amendments respond to CSB's suggested rule changes based on their review of specific incidents, which is consistent with the structure of CAA 112(r)(6)(C)(ii) and EPA's rulemaking authority in CAA 112(r)(7). Some of the rule changes, such as new information availability provisions, will improve how existing provisions work (e.g., improving the public's access to existing disclosure). Some of the rule changes also will improve compliance by making compliance easier to verify (e.g., documentation of coordination with responders will simplify verifying compliance with the emergency response requirements of subpart E). In sum, the history of implementation of the RMP rule has given EPA sufficient experience to support modernizing and improving the underlying RMP rule and not simply resort to compliance oversight of the existing rule.

8.4.3. The proposed rule significantly increases burden or creates unintended risks without providing a corresponding benefit

Comment: Many commenters, including industry trade associations and facilities, made general comments that the proposed rule imposes significant new burdens without providing a corresponding benefit (0492, 0495, 0523, 0535, 0537, 0550, 0558, 0584, TRANS-15). For example, a facility

encouraged EPA to consider whether the proposed rule would cause a counterproductive reallocation of resources or higher operating costs without the commensurate increase in safety (0523).

A state government agency stated that the rule provides no benefits and may lead to an increased risk of intentional release by those with nefarious motives (0433). A facility stated that the proposed rule could pose security concerns for its employees and would provide little to no value to the RMP's purpose (0535).

> **EPA Response:** EPA anticipates that promulgation and implementation of this rule would result in a reduction of the frequency and magnitude of damages from releases. Accidents and releases from RMP facilities occur every year, causing fires and explosions; damage to property; acute and chronic exposures of workers and nearby residents to hazardous materials; and result in serious injuries and death.
>
> EPA acknowledges that many of these provisions will require time and monetary commitments to implement. EPA also believes that many of these provisions are necessary updates to the existing RMP rule to ensure continued public safety concerning the operation of chemical facilities in and near communities. Further, the rule has been structured such that the costliest provisions are targeted towards the largest and highest-risk facilities or only occur after an accident. The only provisions that are universally applicable are public disclosure and rule familiarization. Many other provisions – such as public meetings, incident investigation, and third-party audits – are only required under limited circumstances, including if an RMP-reportable accident or near miss occurs. Of the remaining provisions, several – such as STAA and exercises – only apply to a narrow subset of NAICS codes or facilities with response capabilities. It is highly unlikely that any facility will incur costs related to all provisions.
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> Finally, EPA has considered security concerns raised by commenters and made adjustments to the rule to strike a balance between making information available and maintaining facility security.

8.4.4. The proposed rule does little to respond to the Executive Order 13650

Comment: Several commenters, including industry trade associations and a state government agency, stated that the proposed rule does little to address the specific issues raised by the West Fertilizer Company incident that triggered EO 13650, which prompted the rulemaking (0433, 0536, 0584). A state government agency notes that none of the provisions in the proposed rule are contained in the recommendations of the CSB in their report on the West, Texas incident (0433).

In light of the recent declaration by the Federal Alcohol, Tobacco, and Firearm Department that the West, Texas incident was a "deliberate act," an industry trade association encouraged EPA to suspend the rulemaking until more is known about the exact events surrounding the incident's cause (0463). Similarly, another industry trade association encouraged EPA to review its proposal to determine which of its proposed revisions were based on the assumption that more stringent standards are needed in light of the West, Texas incident (0529). A few commenters, including a facility and an industry trade association, questioned the need for the rulemaking because of the determination at the West, Texas incident was an alleged criminal act (0483, 0550).

An industry trade association commented that EO 13650 did not issue a mandate to EPA to revise and/or expand the entire RMP program, but rather directed EPA to determine whether the RMP rules should be expanded to address additional regulated substances and types of hazards. Furthermore, the commenter stated that EPA was clearly given the discretion to refrain from enacting any changes. Based on this interpretation of the direction from EO 13650, the commenter urged EPA to conclude that the current rules are appropriate and to make no changes to the current regulatory program (0529).

> **EPA Response:** EPA disagrees that the rule does not address issues that triggered EO 13650. The EO was triggered by numerous chemical facility incidents, including the explosion at West Fertilizer facility in West, Texas, on April 17, 2013,[85] which have demonstrated a significant risk to the safety of American workers and communities. On March 23, 2005, explosions at the BP Refinery in Texas City, Texas, killed 15 people and injured more than 170 people.[86] On April 2, 2010, an explosion and fire at the Tesoro Refinery in Anacortes, Washington, killed seven people.[87] On August 6, 2012, at the Chevron Refinery in Richmond, California, a fire involving flammable fluids endangered 19 Chevron employees and created a large plume of highly hazardous chemicals that traveled across the Richmond, California, area.[88] Nearly 15,000 residents sought medical treatment due to the release. On June 13, 2013, a fire and explosion at Williams Olefins in Geismar, Louisiana, killed two people and injured many more.[89] Therefore, EPA believes it would be inappropriate to suspend the rulemaking based on outcomes of the incident investigation of the West Fertilizer explosion. Moreover, accepting the view that the cause of the West Fertilizer incident was an intentional act, that incident also demonstrated many valuable lessons for emergency response, coordination, and planning, including but not limited to the importance of emergency responders being aware of the risks presented by chemicals on-site as well as the need to have drilled for response.
>
> Section 6 of the EO, entitled "Policy, Regulation, and Standards Modernization," among other things, requires certain Federal agencies to consider possible changes to existing chemical safety and security regulations. To solicit comments and information from the public regarding potential changes to EPA's RMP regulations (40 CFR part 68), on July 31, 2014, EPA published an RFI

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[85] CSB. January 2016. Final Investigation Report, West Fertilizer Company Fire and Explosion, West, TX, April 17, 2013. REPORT 2013-02-I-TX. http://www.csb.gov/west-fertilizer-explosion-and-fire-/. On May 11, 2016, ATF ruled that the fire was intentionally set. See ATF Announces $50,000 Reward in West, Texas Fatality Fire, https://www.atf.gov/news/pr/atf-announces-50000-reward-west-texas-fatality-fire.

[86] CSB. March 2007. Investigation Report: Refinery Explosion and Fire, BP, Texas City, Texas, March 23, 2005. Report No. 2005-04-I-TX. http://www.csb.gov/assets/1/19/CSBFinalReportBP.pdf.

[87] CSB. May 2014. Investigation Report: Catastrophic Rupture of Heat Exchanger, Tesoro Anacortes Refinery, Anacortes, Washington, April 2, 2010. Report No. 2010-08-I-WA. http://www.csb.gov/assets/1/7/Tesoro_Anacortes_2014-May-01.pdf.

[88] CSB. January 2014. Regulatory Report: Chevron Richmond Refinery Pipe Rupture and Fire, Chevron Richmond Refinery #4 Crude Unit, Richmond, California, August 6, 2012. Report No. 2012-03-I-CA. http://www.csb.gov/assets/1/19/CSB_Chevron_Richmond_Refinery_Regulatory_Report.pdf.

[89] CSB. October 2016. Case Study: Williams Geismar Olefins Plant Reboiler Rupture and Fire, Geismar, Louisiana. Incident Date: June 13, 2013, No. 2013-03-I-LA. US Chemical Safety and Hazard Investigation Board, Washington, DC http://www.csb.gov/williams-olefins-plant-explosion-and-fire-/

(79 FR 44604). Information collected through the RFI informed the proposed rule that was published on March 14, 2016 (81 FR 13637).

8.4.5. Comments related to abandonment of performance-based approach

Comment: Many commenters, including facilities and industry trade associations, stated that EPA's proposed RMP revisions establish an overly prescriptive regulatory regime and are inconsistent with RMP's historical performance-based approach (0492, 0529, 0549, 0550, 0593, 0594). A few commenters stated that the proposed rule departed from the current regulatory framework, which recognizes that each employer is in the best position to assess and address unique, process and site-specific issues. The commenters opposed this revised approach, reasoning that a one-size-fits-all approach is inappropriate in an area where facility-specific expertise is critical to safety (0584, 0529). An industry trade association urged EPA to refrain from enacting more prescriptive RMP regulations that would hinder the exercise of engineering judgment and replace the exercise of judgment with a Federal command-and-control approach to facility safety (0529). An industry trade association stated that the RMP rule could render the RMP an administrative compliance function, rather than a performance-oriented program (0598).

EPA Response: EPA disagrees that the revisions to the rule establish an overly prescriptive regulatory regime, which is not performance-based. There remains latitude in how many of the requirements are implemented. For example, the STAA requirements are not prescriptive in nature, but more similar to a performance-based standard (like other provisions of the RMP regulations) that give facilities the flexibility and allow facility owners and operators to exercise reasonable judgement to determine what technology or risk reduction measures work best for their particular chemical use, process or facility. The third-party audit requirements were modified to allow for more flexibility, including allowing a facility to choose to have a third-party audit performed with a team lead by an independent third-party, but that could include other participants, including facility employees. The final rule's emergency exercise requirements give owners and operators significant flexibility in establishing exercise schedules and exercise scenarios. Other provisions of the final rule afford similar flexibilities.

8.4.6. Needed coordination with Occupational Safety and Health Administration and other Federal agencies

Comment: Several commenters, including industry trade associations and facilities, stated that EPA has failed to adequately coordinate with OSHA (0458, 0462, 0529, 0531, 0537, 0538, 0551, 0581, 0579, 0594). An industry trade association stated that Congress specifically envisioned and directed coordination between EPA, OSHA, and other Federal agencies (See 42 U.S.C. 7412(r)(7)(D)), and asked that EPA suspend any further action on the proposed RMP rule until it has coordinated its proposal with OSHA and DHS and conformed/curtailed its revisions commensurate with the requirements established for comparable purpose of those agencies (0494). A facility stated that EPA's coordination efforts with OSHA in the early 1990s does not excuse EPA from the coordination requirement today (0538). Without commenting on the adequacy of EPA's coordination efforts, other commenters more generally encouraged EPA to coordinate with OSHA (0463, 0598, 0522, 0570, 0573).

A few commenters, including industry trade associations, stated that facilities regulated under either EPA RMP or the OSHA PSM should have the opportunity to review and comment on both proposed rules and

revised ICRs at the same time to ensure any revisions are not inconsistent, duplicative, and unnecessarily burdensome. The commenters stated that OMB should perform a similar, concurrent review of both proposed rules (0364, 0529).

A few commenters, including a Federal elected official and an industry trade association, encouraged EPA to re-open the comment period to allow the public to concurrently review the EPA and OSHA regulations if OSHA moves forward with a proposal relating to the PSM program (0437, 0529). Similarly, a few commenters, including a facility and industry trade associations, stated that the proposed RMP rule should be withdrawn, or deferred, until OSHA proposes PSM amendments in order to allow coordination between the agencies with the opportunity for meaningful input from the regulated community (0492, 0551, 0579).

An industry trade association stated that the CAA requires EPA to coordinate and consult with OSHA and U.S. DOT to ensure that EPA relies on the expertise of those agencies in crafting an RMP regulation that aligns with PSM and DOT's Hazardous Materials Regulations. The commenter asserted that EPA failed to docket the material that would inform the public of whether it complied with this coordination requirement (0579).

> **EPA Response:** EPA consulted and coordinated with DOL, OSHA and DOT. As an initial matter, DOL, DHS and DOT were part of the Working Group under EO 13650. That order and report of the Working Group reflect consultation and direction regarding the development of this final rule. Second, we note that EPA's decision to not consider the regulation of AN at this time explicitly is based on an effort to coordinate any potential regulatory requirements for this substance with actions contemplated by other agencies, including OSHA. Third, while the content of interagency deliberations are not for the record for judicial review under CAA section 307(d), multiple agencies have an opportunity to review a draft rule under EO 12866 Regulatory Planning and Review. Additionally, OSHA and DHS had representatives attend the SBAR panel which discussed the development of the proposed rule. Furthermore, in the background document for small entity representatives to the OSHA Process Safety Management SBREFA Panel, the document notes that OSHA is tracking the development of the RMP Modernization rule "closely" and that it is "coordinating with EPA to resolve potential conflicts between the requirements of the PSM standard and the RMP rules."[90] All of this is a matter of public record in the docket for this rulemaking.
>
> For many years, EPA and OSHA have established a regular meeting to consult with the DOL and coordinate the PSM and RMP programs, including but not limited to interpretation of overlapping regulatory provisions and the development of potential amendments to the rules. During several of these regular meetings (including but not limited to meetings on various dates in Appendix A to this document), staff from the agencies discussed the development of the RMP Modernization Rule, potential issues to be addressed by EPA, and OSHA's intent to convene a SBAR panel as it explored potential regulatory amendments. EPA has coordinated with the Department of Transportation on a more ad hoc basis as issues arise. With respect to the RMP Modernization

[90] https://www.regulations.gov/document?D=OSHA-2013-0020-0107, "Process Safety Management SBREFA SER Background Document," at 82.

Rule, early on in the EO 13650 process, DOT and EPA recognized that there would be minimal impacts on DOT programs from the contemplated RMP Modernization Rule and therefore there would be less need for continuing coordination meetings.

Finally, EPA disagrees with commenters that the RMP rule and the OSHA PSM rule should be available concurrently for comment. Each agency has distinct rulemaking procedures and the statute itself contemplates that the rulemakings may proceed on different schedules. OSHA's rulemaking under section 304 of the CAAA of 1990 was due within 1 year of enactment, while EPA's list rule was due 2 years after enactment and the RMP rule was due 3 years after enactment. Due to the statutory structure, it is not unreasonable for there to be some lack of synchronous process. Nevertheless, EPA has coordinated, and will continue to coordinate, with OSHA on revisions to the RMP rule and PSM standard to ensure consistency and avoid inconsistent duplicative requirements.

8.4.7. Concerns relating to overlap with other regulatory programs

Comment: A few commenters, including industry trade associations and a facility, cautioned EPA against creating rules that overlap or are duplicative with other established programs (e.g., DHS's CFATS) (0339, 0484, 0529, 0559, 0588, TRANS-13). An industry trade association cautioned EPA against creating new regulations that could harm the security related gains accomplished through other regulatory programs and encouraged EPA to ensure that the proposal does not conflict or overlap with existing Federal security regulations (0339).

Citing EO 13563, which the commenters stated directs Federal agencies to simplify and harmonize rules and to avoid regulations that may be redundant, inconsistent, or overlapping, several industry trade associations encouraged EPA to take every effort to understand how the RMP program operates alongside other Federal safety and security programs and avoid regulatory overlap that adds compliance costs without an accompanying safety or security benefit (0559).

EPA Response: EPA agrees with commenters and has coordinated with DHS in the development of the RMP rule to ensure consistency, avoid duplicative requirements, and ensure that security concerns are appropriately addressed.

8.4.8. Other comments on the rulemaking process

Comment: Several commenters, including Federal elected officials and industry trade associations, stated that EPA has been proceeding on an accelerated timeline that does not allow for meaningful and thorough public review of the proposal or for appropriate agency consideration of public comment (0437, 0457, 0579, TRANS-10, TRANS-15). An industry trade association stated that that EPA has tacitly acknowledged that it is rushing this rulemaking by promising to further explain the revisions in guidance (0579). Several commenters expressed concern with EPA's decision to submit the proposed rule to OMB prior to the completion of the SBREFA report (TRANS-11).

An industry trade association stated that EPA has failed to docket key materials underlying the proposed rule, denying the public a fair opportunity to comment (0579).

A state government agency encouraged EPA to provide the appropriate process and time to comment on changes to the rule if significant revisions are made to the proposal (0446).

In contrast, a mass mail campaign joined by approximately 17,250 commenters encouraged EPA to expedite the finalization of the rule (0480).

An industry trade association requested that EPA hold an additional public hearing later in the rulemaking process to provide stakeholders additional time to process the proposal (TRANS-05).

> **EPA Response:** EPA disagrees that the Agency did not allow for meaningful and thorough public review of the proposal or for appropriate agency consideration of public comment. EPA provided multiple opportunities for public input on the rulemaking and held listening sessions for the EO 13650, solicited comments on an RFI and the proposed rule, conducted an SBAR panel for small entities, and held a public meeting.
>
> EPA also disagrees that the Agency did not fulfill its obligations under the Regulatory Flexibility Act or that the Agency did not consider the comments of the SBAR panel and SERs in the proposed or final rules. In many locations throughout the proposed rule, EPA discussed SBAR panel recommendations and requested public comments on regulatory alternatives recommended by the SBAR panel. EPA is also making numerous adjustments to the final rule to incorporate regulatory alternatives that were suggested by SERs where those alternatives were also supported by public comments and were consistent with the Agency's policy goals. For example, EPA incorporated SBAR panel recommendations by relaxing the competency and independence criteria for third-party auditors; reducing the frequency for conducting facility exercises; and by not finalizing the proposed revision to the definition of catastrophic release.
>
> Furthermore, EPA disagrees that key information was missing from the docket for the proposed rule. EPA docketed relevant materials associated with the rulemaking. EPA has not docketed confidential, deliberative material regarding the substance of intra-agency and interagency deliberations. Nothing in CAA section 112(r)(7)(D) requires disclosure of the substance of consultations and coordination among agency programs. The requirement is satisfied by the fact of consultation and coordination, which EPA, DOL, OSHA, and DOT have satisfied, as described in the preamble and elsewhere in the Response to Comment document, without requiring a waiver of the normal confidentiality in consultations between executive agencies.
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> Finally, EPA did not grant the request for an additional public meeting because this would have increased the burden on commenters to develop materials for an additional hearing and to prepare written comments on the rule by the comment deadline.

8.4.9. Other recommended revisions to the proposed rule

Comment: Many other commenters recommended additional revisions to the proposed rule. For example, commenters recommended the following:

- A facility stated that the proposed rule should be withdrawn or exclude the electric utility sector from its applicability because the current regulatory framework, including local, state, and Federal requirements, is already working (0484).

- An advocacy group stated that the proposed rule should be based on precautionary principles, rather than risk-based principles (0333).
- A commenter recommended a thorough semantic edit of the NPRM and the existing regulations to address confusing word usage (0459).

EPA Response: EPA disagrees that the rule should be withdrawn or that certain sectors should be excluded from the final rule. EPA is developing a final rule that minimizes burden so that several provisions (e.g., third-party audits, public meetings) apply only under limited circumstances, including when an RMP-reportable accident occurs. Furthermore, EPA is revising the preparedness requirements and information availability requirements to reduce the burden to facilities. We note that applicability is based on the presence in a process of more than a threshold quantity of a regulated substance. There are no sectors excluded from this applicability criterion except those identified by statute (see CAA 112(r)(4)(B) (exclusion of certain flammable substances from listing), CAA 112(r)(authority to exempt a regulated substance when it is a nutrient used in agriculture when held by a farmer).

This rule does not impose a general burden of proof on owners and operators of either ongoing or existing processes to establish that the processes are not harmful in order to continue (or start) to operate. We interpret the requirement in CAA 112(r)(7)(B) that our regulations be reasonable and that, as appropriate, the regulations "recognize differences in size, operations, processes, class and categories of sources" to provide EPA discretion to adopt requirements that recognize different risks among types of sources. The regulations reflect different requirements based on accident history, for example. The rules preserve flexibility and rely on the reasonable judgment of facilities to provide for a reasonable regulation. Finally, EPA has attempted to clarify requirements in the final rule to avoid confusion.

8.4.10. Other comments on the proposed rule

Comment:

- A union stated that EPA should not rely on voluntary recommendations to industry because too many facilities opt-out when actions are voluntary (0519).
- Many commenters endorsed comments submitted by other organizations (0435, 0463, 0464, 0469, 0482, 0483, 0486, 0487, 0493, 0496).
- Several commenters expressed concern about the Rancho LPG storage facility at the Port of Los Angeles (0468, 0596, 0602).

EPA Response: EPA has not incorporated voluntary recommendations into the final rule. Finally, comments on the Rancho LPG storage facility are outside the scope of this rulemaking.

Appendix A- Meeting dates for EPA/OSHA coordination on RMP Modernization Rule

EPA/OSHA PSM/RMP program coordination meetings

EPA and OSHA staff participated in regularly scheduled PSM/RMP coordination meetings that involved discussions of EPA's revisions to the RMP rule and OSHA's revisions to their PSM standard, as well as discussion on other issues involving implementation, enforcement, and guidance for PSM and RMP programs. The dates of these meetings (mostly by teleconference) were as follows: 09/20/2016, 08/16/2016, 06/23/2016, 05/19/2016, 04/19/2016, 03/17/2016, 02/16/2016, 01/19/2016, 12/15/2015, 11/17/2015, 10/27/2015, 08/18/2015, 07/27/2015, 07/21/2015, 06/16/2015, 05/26/2015, 03/17/2015, 02/20/2015, 01/21/2015, 12/16/2014, 09/16/2014, 09/09/2014, 08/19/2014, and 06/18/2014.

EPA and OSHA Meetings for PSM and RMP for EO 13560

OSHA and EPA staff attended these meetings on 08/20/2013 and 09/18/2013.

Small Business Review Meetings under Small Business Regulatory Enforcement Fairness Act (SBREFA)

OSHA staff attended EPA's RMP Modernization Rule Small Business Review Pre-Panel Outreach Meeting on 09/22/2015 and the Panel Outreach Meeting on 11/19/2015.

EPA staff attended OSHA's Revisions to PSM standard SBREFA meetings on 06/21/2016 and 06/22/2016.

Other Meetings (not all inclusive)

Review of EPA's RMP Modernization Rule at the RMP Update and Chemical Safety Executive Order meeting in Knoxville, Tennessee on 08/07/2016. (Mathy Stanislaus, Nitin Natajaran, Barry Breen, Reggie Cheatham and Becki Clark of EPA/OLEM participated with Lisa Long from OSHA and Caitlin Durkovich and Amy Graydon from DHS).

Meeting between Mathy Stanislaus of EPA and Jordan Barab of OSHA (principals) regarding RMP and PSM SBREFA processes on 06/25/2015.

Sources of meeting dates: Primarily calendars of Kathy Franklin and Jim Belke (EPA/OLEM/OEM). Some meeting dates were confirmed by consulting calendars, contemporaneous notes and emails of other staff and managers at EPA.