



U.S. ENVIRONMENTAL PROTECTION

OFFICE OF INSPECTOR GENERAL



EPA Needs to Improve Its Process for Accurately Designating Land as Clean and Protective for Reuse

Report No. 14-P-0364

September 29, 2014



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Abbreviations

ACRES	Assessment, Cleanup, and Redevelopment Exchange System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CPRM	Cross-Program Revitalization Measures
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
OIG	Office of Inspector General
OSWER	Office of Solid Waste and Emergency Response
PFP	Protective for People
RAU	Ready for Anticipated Use
RCRA CA	Resource Conservation and Recovery Act Corrective Action
RCRAInfo	RCRA's database
UST	Underground Storage Tank

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At a Glance

Why We Did This Review

The purpose of this evaluation was to determine whether the U.S. Environmental Protection Agency's (EPA's) designation of sites that have achieved the "protective for people" and/or "ready for anticipated use" (RAU) performance measures include effective controls to ensure long-term protection to human health and the environment.

A primary goal of the EPA's Office of Solid Waste and Emergency Response (OSWER) is to ensure that the cleanup of contaminated sites is protective of human health and the environment. OSWER developed the Cross-Program Revitalization Measures (CPRM) to promote and communicate its cleanup accomplishments and benefits of restoring contaminated properties to environmental and economic vitality.

This report addresses the following EPA goal or cross-agency strategy:

- *Cleaning up communities and advancing sustainable development.*

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EPA Needs to Improve Its Process for Accurately Designating Land as Clean and Protective for Reuse

What We Found

The EPA has limited controls for verifying or testing the accuracy of CPRM information that states and grantees provide to show sites are protective for people and RAU. The EPA also does not have adequate controls to verify that these designations continue to be valid and the sites remain protective in the long term.

The EPA's lack of controls over designating sites as protective and ready for reuse calls into question the reliability and value of the designations for protecting human health.

The Resource Conservation and Recovery Act Corrective Action (RCRA CA) program does not require documentation to support the designations. The EPA could not obtain supporting documentation for six of the 16 reuse designations we reviewed. While the Brownfields program does receive the supporting documentation, it does not sufficiently review the documentation to verify accuracy. We could not verify the accuracy of the reuse designation for 10 of 32 Brownfields sites we examined. Three of these Brownfields sites were prematurely designated as RAU. These sites had asbestos contamination cleaned up after they were designated as RAU.

The Underground Storage Tank (UST) program has the fewest EPA controls for accurate RAU site designations, even though UST sites represent 99 percent of the more than 400,000 sites the EPA has designated as RAU. States submit the number of UST RAU sites to EPA, but not names or supporting documentation. Further, states do not provide information on whether institutional controls are needed at the sites, but the EPA's definition of RAU indicates it is improper to provide an RAU designation without knowing if institutional controls are needed.

Given that nearly all the EPA's RAU designations are at UST sites and that the EPA inaccurately designated sites as RAU or failed to support some of the Brownfields and RCRA CA designations, the reliability and value of the RAU measure are marginal. This creates the risk that the designations may not be sufficiently protective of human health, which is even more important when considering some of these sites may be reused as playgrounds, schools or child care facilities. Also, the EPA's public reports may contain unreliable information on site conditions.

Recommendations and Agency Corrective Actions

We recommend that the OSWER Assistant Administrator improve controls over its guidance, review and reporting of the CPRM measures. The agency agreed with two recommendations but disagreed with the remaining three recommendations, and resolution efforts are in progress.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 29, 2014

MEMORANDUM

SUBJECT: EPA Needs to Improve Its Process for Accurately Designating Land as Clean and Protective for Reuse
Report No. 14-P-0364

FROM: Arthur A. Elkins Jr.

A handwritten signature in black ink, appearing to read "Arthur A. Elkins Jr.", is written over the printed name.

TO: Mathy Stanislaus, Assistant Administrator
Office of Solid Waste and Emergency Response

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 60 calendar days. You should include planned corrective actions and completion dates for all unresolved recommendations. Your response will be posted on the OIG's public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at <http://www.epa.gov/oig>.

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Chapter 1

Introduction

Purpose

We sought to determine whether the U.S. Environmental Protection Agency's (EPA's) designation of assessed and cleaned-up sites that have achieved the "ready for anticipated use" (RAU) and/or "protective for people" (PFP) performance measures include effective controls to ensure long-term protection to human health and the environment.

Background

Office of Management and Budget Circular A-123, *Management's Responsibility for Internal Controls*, states that management has a fundamental responsibility to develop and maintain effective internal control and that organization, policies and procedures are tools to help program managers achieve results and safeguard the integrity of their programs. The Government Performance and Results Act of 1993, amended in 2010, requires the EPA to clearly describe the goals and objectives of its programs, identify resources and actions needed to accomplish these goals and objectives, develop a means of measuring their progress, and regularly report on achievements.

The primary objective the Office of Solid Waste and Emergency Response (OSWER) cleanup program is to ensure that the cleanup of contaminated sites is protective of human health and the environment. In 2006, OSWER issued interim guidance for reporting performance measures, including site reuse measures. OSWER describes the measures as "a first step toward reporting data as a common set of measures." The guidance describes the reuse measures' benefits to society as helping reassure interested parties (property owners, workers, investors, potential buyers or developers, etc.) that the sites are protective not only for the current use but for reuse in the reasonably anticipated future. OSWER indicated the reuse measures help communicate broader cross-programmatic, regional and national progress in getting properties through the cleanup process.

Cross-Program Revitalization Measures (CPRM) include sites from a range of OSWER programs:

- Superfund.
- Brownfields.
- Resource Conservation and Recovery Act Corrective Action (RCRA CA).
- Underground Storage Tank (UST).

The PFP performance measure is the number of sites and acres at which there is no complete pathway for human exposures to unacceptable levels of contamination based on current site conditions, and is achieved through:

- Environmental investigations.
- Response actions that treat, contain or remove contaminated media that make it protective for current use/conditions.
- Solutions that limit or restrict human use and associated exposures through engineering controls such as caps or institutional controls such as notices and easements.

The RAU performance measure is the number of acres and sites at which all three of the following are achieved:

- There are no complete pathways for human exposure to unacceptable levels of contamination based on current site conditions.
- All cleanup goals have been achieved for media that may affect current and reasonably anticipated future land uses of the acres or sites so that there are no unacceptable risks.
- All institutional or other controls identified as part of the response action to help ensure long-term protections have been put in place.

There are also two voluntary indicators used to promote the collection of information needed to help describe revitalization accomplishments—the Status of Use and Type of Use indicators. The Status of Use indicator captures information about whether a site is being used; sites and acres will be classified as unused, in continued use, reused or planned reuse. The Type of Use indicator describes how the acres at a site are being used when the site reuse determinations are made. There are six categories of Type of Use Indicators:

- Commercial and Public Service.
- Green Space.
- Industrial.
- Military and Other Federal.
- Mixed.
- Residential.

Implementation of CPRM Performance Measures

As shown in Table 1, between the adoption of guidance for the reuse performance measures in 2006 and the end of fiscal year (FY) 2013, OSWER designated over 400,000 reuse sites, the majority of which are UST sites.

Table 1: Total number of RAU sites as of September 30, 2013

Program	Number of RAU sites
Superfund	662
RCRA CA	904
Brownfields	1,694
UST	437,914
Total	441,174

Sources: OSWER's programs for FY 2011 data and OSWER's FYs 2012 and 2013 accomplishment reports.

The EPA reported these sites in its FYs 2010, 2012 and 2013 accomplishment reports to the public. The sites are reported cumulatively, beginning in 2008 when the EPA first began measuring site reuse progress.

EPA maintains oversight authority over all states whether delegated or not. But, for delegated programs (RCRA CA and UST) - - and for the Brownfields program, states have primary authority. For those states where the program is delegated, the agency establishes a Memorandum of Agreement with the state that promotes coordination and clarifies the general roles and responsibilities between the EPA and the states. As a result, the EPA relies primarily on the states to ensure these cleanup programs are effectively implemented. States are required to report information confirming effective implementation into the EPA's Brownfields and RCRA CA databases, and the EPA regions review the information to determine whether the required data were submitted and that sites were cleaned up and met the PFP and RAU criteria. Table 2 provides a description of how RAU designations are made.

Table 2: How RAU designations are made

Program	How RAU designations are made
Superfund	EPA regions determine when a site has achieved the reuse measures. The regions complete a checklist and enter the data in the EPA's Comprehensive Environmental Response, Compensation and Liability Information System.
RCRA CA	EPA regions determine when a site has achieved the reuse measures. States enter the information into OSWER's RCRA CA database to indicate that a site meets OSWER's reuse definition.
Brownfields	EPA regions determine when a site has achieved the reuse measures. Grantees enter the information into OSWER's Brownfields database to indicate that a site meets OSWER's reuse definition.
UST	EPA regions determine when a site has achieved the reuse measures. States determine when sites are cleaned up and report the number of sites that meet OSWER's reuse definition.

Source: OIG analysis of each program's process for designating sites RAU.

Responsible Offices

The Immediate Office within OSWER has overall responsibility for the CPRM. Within OSWER, the following offices have responsibilities related to the performance measures.

Office of Superfund Remediation and Technology Innovation

EPA regions determine when a site has achieved the reuse measures. The regions complete a checklist and enter the data in the EPA's Comprehensive Environmental Response, Compensation and Liability Information System. The checklist also documents information for the two voluntary indicators (Status of Use and Type of Use). A Five-Year Review is required for sites where hazardous substances remain onsite above levels which permit unlimited use and unrestricted exposure, and provides an opportunity to evaluate the implementation of a remedy to determine whether it remains protective of human health and the environment. The federal Superfund program is not delegated to the states, although some sites are state-led.

Office of Resource Conservation and Recovery

Although the EPA is ultimately responsible for the RCRA CA cleanup program, it has delegated the program to most states. As a result, those states determine when sites achieve the reuse performance measures using the agency's definitions of PFP and RAU. The regions check the program database to verify that the performance measure data have been input.

Office of Brownfields and Land Revitalization

The Brownfields program uses a Property Profile Form, which grantees access and update in the Brownfields database—the Assessment, Cleanup, and Redevelopment Exchange System (ACRES). States oversee a phase 1 assessment of the site to determine whether a cleanup is necessary. If further assessment and/or a cleanup and institutional controls are not required, the site meets the RAU definition. If a cleanup is needed, the site receives the reuse designation after the cleanup is completed and no further action is necessary. Once the site meets the reuse criteria, OSWER, through ACRES, designates the site as RAU.

Office of Underground Storage Tanks

The reuse measures for the UST program are achieved when a state cleanup of a confirmed release is completed. The state determines when these sites are cleaned up and reports the number of cleaned-up sites to its regional EPA office. Regional offices then submit these numbers to EPA headquarters, which reports these sites as RAU in EPA accomplishment reports.

Scope and Methodology

We performed our work from April 2012 to July 2014. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Included in our evaluation was OSWER's implementation of two CPRMs— PFP and RAU. We reviewed these two reuse measures for three OSWER programs—Brownfields, RCRA CA and UST. We did not include Superfund sites because we issued a report¹ on OSWER's management controls to ensure Superfund Five-Year Reviews are thorough, meet policy, and lead to well-supported determinations that accurately report how well cleanup remedies protect human health and the environment.

We reviewed information supporting OSWER's site reuse determinations for 90 sites in the RCRA CA, Brownfields and UST programs. The sites are located in Florida, Georgia, Louisiana, New Mexico, South Carolina and Texas, and represented 29 RCRA CA sites, 32 Brownfields sites and 29 UST sites. All states we reviewed were delegated for RCRA CA and UST. We selected sites based on the age of the site, number of acres designated PFP or RAU, the type of facility, and the proximity of sites to each other. For the RAU sites, we requested supporting documentation from OSWER. We compared the supporting documentation with the information in the database to test the accuracy of the databases and determine whether the site reuse designations were adequately supported.

To accomplish our objective, we interviewed EPA managers and staff in the following OSWER Offices: Superfund Remediation and Technology Innovation, Resource Conservation and Recovery, Underground Storage Tanks, and Brownfields and Land Revitalization. We also interviewed managers and staff in Regions 4 and 6 for each of the four OSWER programs.

We reviewed key documents, including: Interim Guidance for OSWER Cross-Program Revitalization Measures, Guidance for Documenting and Reporting Performance in Achieving Land Revitalization, Guidance for Documenting and Reporting RCRA CA Land Revitalization Indicators and Performance Measures, Guidance for Preparing Superfund Ready for Reuse Determinations, Superfund Five-Year Review Guidance, OSWER's December 2010 Cross-Program Revitalization Measures report and FYs 2011 and 2013 accomplishment reports,

¹ EPA Office of Inspector General (OIG) Report No. 12-P-0251, *Stronger Management Controls Will Improve EPA Five-Year Reviews of Superfund Sites*, issued February 6, 2012.

FY 2013 National Program Manager's Guidance, and UST Performance Measures Definitions.

We reviewed how EPA Regions 4 and 6 oversee measurement and tracking of sites that achieve the reuse performance measures. We reviewed the Memorandums of Agreement between regions and states. We reviewed No Further Action letters, Completion Letters, and Site Rehabilitation Completion Orders. We reviewed RCRA CA facility permits, RAU documentation forms, and Institutional Controls Tracking Information forms. We reviewed Brownfields Property Profile forms, State Certificates of Completions, site assessment reports, and technical documents related to the selected sites. We also reviewed UST Closure Reports.

Chapter 2

EPA's Performance Measures for Some Cleanup Programs Missing Needed Controls to Ensure Long-Term Protection of Human Health

OSWER does not have adequate procedures to verify the accuracy of sites that have been designated PFP and RAU. Due to ineffective oversight controls:

- The RCRA CA program does not always require documentation to support designations. Region 4 was unable to provide supporting documentation for six of the 16 RCRA CA reuse designations we sampled.
- Although the Brownfields program receives supporting documentation, it does not sufficiently review the documentation to verify accuracy. We could not verify the reuse designation for 10 of the 32 Brownfields sites we sampled. OSWER was unaware that three of the 10 sites were designated RAU but were later remediated for asbestos contamination.
- The UST program, which represents 99 percent of the 441,174 RAU sites, has the least controls; states do not provide site specific information or supporting documentation for the designations. States with delegated authority submit the number of UST RAU sites, but do not provide the names of those sites or documentation to support RAU designations. Further, OSWER qualifies in public reports that it is unable to identify whether any institutional controls, if needed, are in place at UST reuse sites. OSWER acknowledges that this is a limitation in meeting the definition of RAU. The regions were able to obtain adequate RAU support from the states for the 29 RAU designations we sampled, but we were only able to verify designations where states made the lists of cleaned-up UST sites publicly available.

The lack of details and support for information provided to the EPA causes questions about the value of the RAU measure, and OSWER's public reports may contain unreliable information. Human health and environmental risks may occur if sites are prematurely designated as protective and ready for use.

EPA Has Limited Controls to Assure Accurate Initial Site Designations as PFP and RAU

Our review of Brownfields, RCRA CA and UST sites found that OSWER prematurely designated some sites as PFP and RAU. Also, OSWER was unable to provide support for other sites, and some regional staff were not aware of OSWER's tracking and reporting of contaminated sites achieving reuse performance measures. These weaknesses occurred because OSWER senior management over-relied on delegated states and grantees and focused on reporting the accomplishments. We found the following for each program reviewed.

Brownfields Program

The EPA incorrectly reported 10 of the 32 Brownfields sites we reviewed, or 31 percent, as RAU before ensuring that the requirements for sites achieving RAU status were fulfilled. The sites were reported incorrectly because guidance did not require EPA Brownfields staff to review the documents submitted by the grantees to verify the accuracy of the reported RAU.

Currently, the EPA relies primarily on the Brownfields grantees and states to provide site information needed to verify that the site meets the conditions for achieving OSWER's reuse performance measures. OSWER's Office of Brownfields and Land Revitalization staff said Brownfields grantees enter site information into the EPA's Brownfields database—ACRES. They also said that the EPA Regional Project Officer reviews that information to ensure the database contains the information needed for OSWER to accurately make site reuse designations. As part of the grant agreement, grantees are asked to complete a Property Profile Form. The form includes data on environmental assessments, cleanup activities, contaminants found at the site, institutional and engineering controls, and basic geographic information. The grantee completes the form, which is located in ACRES. According to the Brownfields staff, the EPA reviews the database to determine whether the required fields that meet the site reuse definition are completed.

Although EPA regional offices receive site assessment and site cleanup reports—which include information on site conditions, contaminants found and cleanup remedies used—the regions do not regularly review these reports to verify the accuracy of the database. Region 4 staff said this was because there are too many documents to review. When the assessment grant is awarded, the grantee performs an assessment of the site and reports on what it finds. The assessment report either recommends that there are no “Recognized Environmental Concerns,” in which case it makes a *No Further Assessment* recommendation, or that further assessment and cleanup is needed. After the site has been cleaned up, the state would issue a *No Further Action* notification.

According to the EPA's interim CPRM guidance, when no cleanup is required the site is considered PFP, and because no cleanup is required the site is also considered RAU. CPRM guidance does not require the EPA to read these reports. EPA regional staff did not review the state's assessment reports to ensure sites were entirely cleaned up and ready for reuse. EPA regional staff were unaware that three of the 10 Brownfields sites were remediated for asbestos contamination after the sites had received the RAU designation. If region staff had reviewed the assessment reports, they would have identified the presence of asbestos and accurately determined that the sites should not be considered RAU.

RCRA CA Program

The RCRA CA CPRM guidance requires state project managers to document on the RAU determination form when a facility has met the criteria for the RAU performance measure. States with delegated RCRA CA authority submit the determination forms to the EPA and the EPA enters the information into the EPA's RCRA CA's database, called RCRAInfo. Both Regions 4 and 6 use the data to verify that sites have met the criteria to meet the reuse performance measures. In addition, a Region 6 manager stated that the region uses an RAU checklist to compare to RCRAInfo, and that other support for information entered into RCRAInfo is maintained at the state.

Region 6 provided us with RAU determination forms for the 13 sites in the region reviewed, and the forms were adequate support for the reuse determinations. However, when we requested from Region 4 supporting documentation for the 16 RAU sites reviewed for that region, the region needed to contact the states for the information. The states provided a mix of documentation, providing adequate support for 10 initial reuse designations but not for the remaining six. Region 4 managers said the region does not keep the supporting documents (RAU determination forms and institutional control documents) because they review the information used to support the initial RAU designations in RCRAInfo at the end of each fiscal year. This review, however, does not verify that sufficient documentation exists to justify the states' reuse designations, which could result in the EPA wrongly designating sites as PFP and RAU.

UST Program

Despite the fact that the UST sites comprise over 99 percent of the reuse sites reported through the end of FY 2013, the EPA receives and reviews the least information for those sites. At the end of FY 2013, we found that 437,914 of the 441,174 RAU sites were UST sites. Considering this large number, it would not be feasible or practical for the EPA to receive and review site-specific documentation for all of the UST sites. However, obtaining supporting documents for a sampling of sites would enable the EPA to test the accuracy and completeness of the information used to support the reuse designations.

The UST program is delegated to 38 of the 50 states. The delegated states are not required to submit information to the EPA supporting cleanups, and they provide limited information. States send the EPA regional offices reports on the number of sites that have been cleaned up without a list of site names or verification of state-reported information. These submittals are done quarterly in Region 4 and semiannually in Region 6. Some states in Regions 4 and 6 had publicly available lists of cleaned-up UST sites while other states did not. As a result, to verify reuse status, we had to alter our sample to select states that had the cleaned-up site lists.

OSWER reports the number of cleaned-up sites as the number of sites achieving reuse status in annual accomplishment reports. For Regions 4 and 6, we requested the supporting documents for 34 sites designated as RAU. The information provided, which the regions needed to request from the states, showed evidence that the sites were cleaned to the level of meeting the definition of the reuse performance measures.

EPA Has Limited Controls for Identifying Changes in Site Conditions and Uses in the Long Term

After sites have been designated PFP and RAU, OSWER has limited controls to verify that the designations continue to be valid and the sites remain protective of human health and the environment. While agency guidance states that the PFP measure has to be accomplished for a site to be RAU, the PFP is only good for the “point in time” in which the determination is made. However, the EPA cumulatively reports the RAU sites, without qualifying that it is a “point in time” or without citing limitations on the continued validity of the measures reported. The accuracy of the PFP measure is needed in order for EPA to help reassure interested parties, including communities, that there is no current complete pathway for human exposures to unacceptable levels of contamination.

Brownfields, RCRA CA and UST managers at both headquarters and the regions stated that their programs do not include mechanisms that require an additional review to verify that sites remain protective of human health and the environment after the initial designation is made. This is consistent with the CPRM interim guidance, which does not require an additional review to confirm that sites remain protective.

The EPA’s CPRM interim guidance does not require states to track the status and type of reuse of remediated sites after they are determined to be RAU. The interim CPRM guidance lists benefits for tracking reuses of cleaned-up sites, but most of the listed benefits involve identifying trends in uses and prioritizing sites, not on ensuring whether sites remain protective for human health. Further, investors could rely on potentially inaccurate information to make business decisions about a site based on outdated or incorrect information in the EPA’s publicly available databases. Tracking and monitoring revitalized sites that are reused as intended by the cleanup and remediation plan would help better ensure

that the reused sites are used properly as intended. We found the following for the three programs reviewed.

Brownfields Program

For Brownfields sites, there is minimal contact between the state and EPA after the cleanup has been accomplished, and changes in site conditions or site use may go undetected by the EPA. The Brownfields program maintains that under the Brownfields amendment to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), it does not have the authority to conduct long-term oversight at Brownfields sites. EPA Office of Brownfields and Land Revitalization officials maintain that the Brownfields program is a grants management program that provides seed money for funding site assessments and cleanups that the states perform, not the EPA. Those EPA officials added that when the grant period ends, they cannot require grantees to report changes in site conditions or reuse to the EPA.

We do not agree with the EPA position. Although the cleanup is managed by the states and the EPA does not participate in cleanups, the OIG found that under CERCLA, the EPA has the authority to add reporting requirements to the grant agreement as deemed necessary and should do so to meet the intent of CERCLA. For the length of the grant agreement, the EPA requires the grantee to add and update information in the agency's database when appropriate. Since site use can change, the EPA should either build in controls to better assure that site conditions remain safe, or publicly disclose that the CPRM determinations may not remain accurate over time.

We found that for all states in our review, Brownfields database information included past uses of each site but only a few sites had information in the database regarding the reuse of properties, whether it was planned or actual reuse. Region 4 managers said that their knowledge of site reuse of developed Brownfields sites is "hit or miss." They added that they would like to track reuse but there were resource issues. Some grantees submit Return on Investment Reports, but regional managers said that this is more of the exception and not the rule.

Brownfields officials acknowledged that the reuse of cleaned-up sites could change from the intended uses, and one Brownfields official said "hopefully states are monitoring the uses, especially when there are uses that should not occur."

RCRA CA Program

Many RCRA CA sites have ongoing operations and, therefore, there is some opportunity for the EPA to track changes because of periodic interaction between the state and EPA. However, the communications between states and the EPA do not encompass effective controls for reporting changes at RCRA CA sites. RCRA CA headquarters managers said that once the RAU designation is made

there is no requirement for states and regions to periodically reevaluate the reuse determination to verify its continued validity.

The EPA relies on the state project managers to update the *Ready for Anticipated Use Determination* form and send it to the EPA region if changes occur, at which point the region should enter the information into RCRAInfo. A RCRA CA headquarters manager said the form is a one-time submittal and there is no requirement for the state to periodically verify that the reuse designation remains valid. However, these forms are not normally checked by the regional EPA staff after a site is RAU. Further, when the states do not submit the determination form or do not inform the region of a change in site status, EPA Region 4 can only identify the site changes through RCRAInfo. Without the form, EPA has no information on how the site use or site conditions have changed and their impact, which could result in EPA reporting erroneous site information to the public. Also, the site may no longer be protective of human health and the environment.

State oversight of RCRA CA sites extends beyond the time a site is initially designated RAU. Therefore, the EPA and the states should track changes in site conditions and use. Most sites receive RCRA CA permits to ensure the site is being operated properly. The EPA incorporates corrective action into a facility's permit. According to a Region 6 RCRA CA manager, the permits are not used to verify the accuracy of sites' long-term RAU status. The EPA should include conditions in the permit that require the state to revise the determination form to show that changes in site use or conditions have occurred and whether the RAU designation should be removed. The permit should further stipulate that these revised determination forms be submitted to the EPA. EPA review of submitted forms would help it and the states better ensure that sites remain protective of human health and the environment.

Region 4 RCRA CA staff stated they are not aware of the CPRM voluntary indicators (status and type of reuse) and believed site reuse information is relevant information the EPA needs to know. Receiving this information will provide the controls needed for the EPA to continue to verify that site conditions and site use remain PFP and RAU.

UST Program

EPA headquarters and regional managers informed us that there are no controls in the UST program to ensure sites continue to be protective of human health long term. EPA headquarters managers also said that after a site has been cleaned up, the state generates a "No Further Action" letter for each site and maintains site-specific information but does not submit that information to the EPA. States report cumulative site cleanup numbers to EPA regions, which then provide these totals to the OSWER Office of Underground Storage Tanks. However, states do not provide the names of the RAU sites or the documentation that supports the reuse designations. OSWER also noted in its 2010 CPRM report that it is unable

to identify whether any institutional controls, if needed, are in place at UST reuse sites, and acknowledges that this limitation is an inconsistency with the RAU definition. A similar qualification exists in the 2013 Accomplishments report. Having institutional controls in place is one of the requirements for a site to meet the criteria for reuse. Because the majority of RAU sites are UST, not knowing the status of institutional controls calls into question the validity of the reuse designation for most of OSWER's RAU sites.

The EPA's regional UST managers and staff said they were unfamiliar with the CPRM performance measures. They said they report the total number of cleaned-up sites to EPA headquarters, and headquarters then reports the sites as achieving reuse status. States are not required to report when site use or conditions change. As a result, the EPA may be unaware when such changes occur. If the use of a site changes, or the conditions change, the site may no longer be protective of human health and the environment.

EPA Can Improve Controls by Finalizing CPRM Interim Guidance

The EPA issued its CPRM interim guidance in 2006,² but the guidance is still not final. The agency stated in the *2007 Guidance for Documenting and Reporting Performance in Achieving Land Revitalization* that the CPRM interim guidance established the overarching framework for these measures, but directed each of the individual OSWER programs to develop companion guidance outlining program-specific implementation. The Superfund/Federal Facilities cleanup program and the RCRA CA program did develop specific guidance for its respective programs, while the Brownfields and UST programs did not.

During our review of the CPRM, we learned that some of the Brownfields and UST program regional staff are not aware of the CPRM measure or how states' hazardous waste cleanup information is used by EPA headquarters to report CPRM performance measure accomplishments. EPA regional cleanup program staff are not reviewing the state cleanup reports to verify whether the data input by Brownfields, RCRA CA and UST grantees is correct. Reviewing state reports for accuracy in the programs' databases is important, as the cleanups are reported by OSWER as RAU and PFP in public reports and websites. Further, some Brownfields and UST program staff do not know the relationship between their respective state site cleanups and the CPRM. Region 6 Brownfields staff informed us that ready for anticipated use "is not a Brownfields assessment grant term and therefore does not apply to a Brownfields assessment grant award commitments or accomplishments." The EPA has the opportunity to finalize its interim CPRM guidance and address the issues described above.

² *Interim Guidance for OSWER Cross-Program Revitalization Measures*, October 2006.

Conclusions

The EPA has limited controls for verifying or testing the accuracy of information that states and grantees are providing to show sites are PFP and RAU. Through its accomplishment reports, EPA has reported to the public that over 400,000 sites nationwide that were once contaminated or believed to be contaminated are now RAU. However, the EPA is relying on states and grantees to voluntarily submit accurate site information, and has minimal controls to be sure sites are RAU and will remain that way. The results of our review demonstrate the usefulness of reviewing supporting documentation for PFP and RAU designations, and the need for the EPA to require states to routinely submit this support. The EPA should revise the interim CPRM guidance to include the controls needed for ensuring sites are accurately designated PFP and RAU.

The EPA's reporting of site reuse accomplishments is inaccurate because the agency does not report limitations on the validity of the reuse designations and the agency does not have controls to verify the accuracy of the initial or continued validity of those designations. As a result, the EPA may be inaccurately representing the benefits of its measures. This greatly diminishes the value and meaning of the EPA's RAU performance measure. Further, in 2010, 2012 and 2013 the EPA reported the total and cumulative number of reuse sites for the Brownfields, RCRA CA, UST and Superfund programs since 2008 without qualifying that the designations were at a "point in time." Without specifying that the number of reuse sites are at a "point-in-time," the reporting of these sites suggests that the reuse determination continues to be valid over time when this may not be the case. Therefore, the agency should reconsider whether it should use the CPRM measures or it should qualify the information as appropriate.

Recommendations

We recommend that the Assistant Administrator for Solid Waste and Emergency Response:

1. Improve controls of the CPRM measures by revising the CPRM guidance to require:
 - a. Grantees to track and report the status and type of reuse at RAU sites, instead of voluntary reporting.
 - b. Brownfields and RCRA CA staff to obtain and review grantees' supporting documentation for sites designated PFP and RAU and verify that the grantees provide information in the appropriate OSWER databases.
 - c. UST staff to obtain and review grantees' supporting documentation for a selected sample of sites designated PFP and RAU and verify that the grantees provided information in the appropriate OSWER databases.

2. After CPRM interim guidance is revised, provide training to regional OSWER staff responsible for verifying states' PFP and RAU designations to ensure staff are informed of the guidance and what is required.
3. Stipulate the following in the grant agreements for each program:
 - a. For Brownfields, require grantees to track the status and type of reuse of remediated sites and report that information to OSWER.
 - b. For RCRA CA, whenever there is a change in site conditions or site use, require states to revise the RCRA CA determination form to reflect the changes and have states re-submit the form to OSWER.
 - c. For UST, require states to submit to OSWER and make publicly available site-specific information, including site name.
4. Correct designations for sites identified as not PFP or RAU.
5. Appropriately qualify the validity, uses and reliability of the CPRM data reporting in OSWER's publicly available information systems.

Summary of Agency Response to Draft Report and OIG Evaluation

We received comments on the draft report from the Assistant Administrator for OSWER on August 25, 2014. We held an exit meeting with OSWER staff on September 24, 2014.

The agency disagreed with Recommendations 1, 2 and 3 and resolution efforts are in progress. We continue to believe these recommendations are valid and their implementation would improve the integrity and value of the RAU measures.

The agency agreed with Recommendations 4 and that recommendation is open with agreed-to actions pending. The agency also agreed with Recommendation 5 and, as a result of the agency subsequently providing us with a milestone date, that recommendation is also open with agreed-to actions pending.

The agency also suggested changes to the report and we made changes where appropriate.

Appendix A contains the agency's complete response and well as OIG comments on that response.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed- To Amount
1	14	Improve controls of the CPRM measures by revising the CPRM guidance to require: <ol style="list-style-type: none"> a. Grantees to track and report the status and type of reuse at RAU sites, instead of voluntary reporting. b. Brownfields and RCRA CA staff to obtain and review grantees' supporting documentation for sites designated PFP and RAU and verify that the grantees provide information in the appropriate OSWER databases. c. UST staff to obtain and review grantees' supporting documentation for a selected sample of sites designated PFP and RAU and verify that the grantees provided information in the appropriate OSWER databases. 	U	Assistant Administrator for Solid Waste and Emergency Response			
2	15	After CPRM interim guidance is revised, provide training to regional OSWER staff responsible for verifying states' PFP and RAU designations to ensure staff are informed of the guidance and what is required.	U	Assistant Administrator for Solid Waste and Emergency Response			
3	15	Stipulate the following in the grant agreements for each program: <ol style="list-style-type: none"> a. For Brownfields, require grantees to track the status and type of reuse of remediated sites and report that information to OSWER. b. For RCRA CA, whenever there is a change in site conditions or site use, require states to revise the RCRA CA determination form to reflect the changes and have states re-submit the form to OSWER. c. For UST, require states to submit to OSWER and make publicly available site-specific information, including site name. 	U	Assistant Administrator for Solid Waste and Emergency Response			
4	15	Correct designations for sites identified as not PFP or RAU.	O	Assistant Administrator for Solid Waste and Emergency Response	10/12/14		
5	15	Appropriately qualify the validity, uses and reliability of the CPRM data reporting in OSWER's publicly available information systems.	O	Assistant Administrator for Solid Waste and Emergency Response	03/31/15		

¹ O = Recommendation is open with agreed-to corrective actions pending.
 C = Recommendation is closed with all agreed-to actions completed.
 U = Recommendation is unresolved with resolution efforts in progress.

Agency Response to Draft Report and OIG Evaluation

August 25, 2014

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report *EPA Needs to Improve Its Process for Accurately Designating Land as Clean and Protective for Reuse* Project No. OPE-FY12-0016

FROM: Mathy Stanislaus
Assistant Administrator

TO: Arthur A. Elkins, Jr.
Inspector General

Thank you for the opportunity to respond to the issues and recommendations in the subject audit report. Following is a summary of the agency's overall position, along with its position on each of the report recommendations. For those report recommendations with which the agency agrees, we have provided high-level intended corrective actions and estimated completion dates to the extent we can. For those report recommendations with which the agency does not agree, we have explained our position, and proposed alternatives to the recommendations. We would appreciate the opportunity to meet with you if you do not plan to accept these changes.

AGENCY'S OVERALL POSITION

The Agency works collaboratively with states, tribes, local government, and other stakeholders to achieve its mission of assessing, cleaning up and restoring contaminated sites to set the stage for redevelopment or facilitate the continued use of the facility. For the Superfund Program, EPA directly oversees the cleanup activities. Other EPA programs were designed by Congress to be delegated or authorized to states (e.g., RCRA Corrective Action, Underground Storage Tanks) or established as a grant program (Brownfields). In fact, the majority of site-specific cleanup decisions are made by the state-run or state-delegated programs, including decisions about protectiveness. These roles and oversight are inaccurately portrayed in various parts of the draft OIG report.

OIG Response 1: The OIG has made revisions where appropriate.

For example, there are no Brownfield specific regulatory authorities governing the cleanup of brownfields delegated to the states. The EPA does not have statutory authority to require state oversight of Brownfields cleanups.

The various roles, responsibilities, and relationships between EPA, states, tribes, and grantees must be taken into consideration when designing and establishing an effective performance reporting system. When a program is delegated or authorized to a state or is implemented through a grant program, EPA relies on that entity to document and report results. These entities are best placed to address site-specific problems as they arise on a day-to-day basis. EPA works to strengthen and assist them and has established requirements for data reporting. Any data reported for the performance measures should adhere to EPA's quality information policies.

OIG Response 2: We agree that any data reported for the performance measures should adhere to EPA's quality information policies. As cited in EPA's Executive Order CIO 2105.0, *Policy and Program Requirements for the Mandatory Agency-Wide Quality System*, Section 6 (a) (8), assessment of existing data, when used to support agency decisions or other secondary purposes, must verify that the data is of sufficient quantity and adequate quality for their intended use. As we have demonstrated in our report, OSWER does not have sufficient controls and procedures to ensure that the CPRM data meets the quality standards cited in the Executive Order.

In that way, the data used to report performance data are reliable and as complete as possible given the structure of these programs.

The Cross-Program Revitalization Measures (CPRM), including the Ready for Anticipated Use (RAU) measure, are a few of the numerous performance measures EPA uses to help manage the program and gauge progress of sites along the cleanup continuum. The OIG inaccurately refers to these measures as a "CPRM program".

OIG Response 3: As cited in Office of Management and Budget Circular A-11, the Government Accountability Office defines a program as an organized set of activities directed toward a common purpose or goal that an agency undertakes or proposes to carry out its responsibilities. Therefore, the CPRM is a program. However, the term is not needed to make our point and has been removed from the report.

Four EPA cleanup programs report the RAU measure which allows us to better manage and communicate at an OSWER level our collective cleanup and reuse related activities and accomplishments³. The four cleanup programs are facilitated to work together to identify lessons learned, potential efficiencies, and opportunities to advance site cleanup. EPA is then able to look at this information collectively across programs and Regions, and gauge overall progress cleaning up contaminated sites.

The RAU is not a reporting of site-specific risk. The RAU determination by the appropriate entity is based on information at the time that the determination is made. It may change if the

³ The RAU is actually made up of specific performance measures from the Superfund, RCRA Corrective Action, Brownfields, and Underground Storage Tank Programs.

site's conditions change or if new or additional information is discovered regarding the contamination or conditions at the site. Thus, the Agency publicly reports the RAU information at a program level for the state-run or grant programs, not at a site-specific level with the names of sites; therefore, it is not available to be used to make decisions on site reuse. The one exception is the Brownfields program, at this time. The Brownfields program is removing the RAU information from the public information system.

OIG Response 4: We do not agree that site-specific RAU information is only available to the public for Brownfields sites. As can be found at <http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0301376>, site-specific RAU information is also available for the Superfund program. Instead of removing the site-specific RAU information, EPA could qualify this data as recommended in OIG Recommendation 5.

Parties interested in finding out what uses would be protective for a particular property will rely on site-specific cleanup documents and site-specific institutional controls and contact the appropriate regulatory agency for more information.⁴

We plan to improve our communication materials to better explain the use of CPRM, the conditions under which a RAU determination is made, and that the measures represent a point in time. We have already begun to do this and will continue to explore ways to better explain the measures to the public.

⁴ We recognize that the lack of data on institutional controls (ICs) for the underground storage tanks program is not consistent with the definition of the RAU performance measure and we are working with the states to develop a baseline of current practices related to long-term protectiveness and whether the IC data can be made available. Nonetheless, we believe the LUST measure is a good indicator of sites ready for anticipate use, given the states' determination that no further action is currently necessary to protect human health and the environment.

AGENCY'S RESPONSE TO REPORT RECOMMENDATIONS

AGREEMENTS			
No.	Recommendation	High-Level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
4	Correct designations for sites identified as not PFP or RAU	Once the IG provides EPA with the list of 10 brownfields sites that it believes have been mistakenly identified as either PFP or RAU then EPA will review the information in the ACRES database to determine if the IG's findings are correct and make any necessary changes to the PFP and/or RAU status of the sites. (In addition, all our programs will continue to work with regions and states to correct any inaccuracies as they are identified.) .	Within 30 days of receiving the list of sites from the IG.
5	Appropriately qualify the validity, uses, and reliability of the CPRM data reporting in OSWER's publicly available information systems.	EPA will remove the RAU indicator for Brownfields sites from the Cleanup In My Community database. The CPRM is not intended to be used as a site-specific indicator for brownfields properties, rather it is intended to be a measure of progress across the universe of brownfield sites receiving EPA funding. Furthermore, we are exploring ways to better explain RAU to the public. As appropriate, EPA will include in its public communication materials that the PFP and RAU measures represents a point in time and will include information about conditions under which a RAU is made to explain potential ICs and ECs may be required.	1 st qtr FY15 On-going. EPA is adding clarifying language to reports and other communication materials about the CPRM.

DISAGREEMENTS			
No	Recommendation	Agency Explanation/Response	Proposed Alternative
1	Improve Controls of the CPRM measures by finalizing the interim guidance to require 1a, 1b, and 1c. (Please note, the use of the term "interim" in the OSWER CPRM guidance did not mean draft. It met an interim step. The final step was for program offices to develop their own program specific guidances. The draft CPRM guidance was sent for comment in April 2006 and finalized October 2006.)		

1a	States to track and report the status and type of reuse at RAU sites, instead of voluntary reporting.	See responses to 3a, 3b, 3c.	
1b	Brownfields and RCRA CA staff to obtain and review grantees' supporting documentation for sites designated PFP and RAU and verify that the grantees provide information in the appropriate OSWER databases	<p>The RCRA Corrective Action program will remind Regions that these forms need to be filled out for PFP and RAU and they should work with their states to verify that these forms are filled out for future RAU and PFP determinations entered into RCRA Info (EPA's RCRA corrective action national database.)</p> <p>The Brownfields Program's existing Assessment, Cleanup, and Redevelopment Exchange System (ACRES) system is designed and structured to collect brownfield grantee reported information. Under the grant terms and conditions of the Assessment, Cleanup, Revolving Loan Fund, and State and Tribal Response Program grants, grant recipients are required to complete an OMB approved Property Profile Form in ACRES for each property where grant funding is expended. As Brownfields grants awarded prior to 2003 do not have a requirement to complete the Property Profile Form under their grant conditions, they are not included in the reporting of CPRM measures. The Ready for Anticipated Use (RAU) performance measure for properties where federal brownfields funding has been expended is based on information entered by the grantee on the Property Profile Form. An RAU designation depends on documenting that a property meets the three criteria in the RAU definition. As part of grant oversight and monitoring activities, EPA Regional staff assist grantees, providing guidance on the completion of forms, ensuring timely submission of forms, and completing quality assurance reviews of Property Profile Form data. EPA collects property information via ACRES throughout the grant period of performance, however, EPA cannot require grantees to enter information about site activities after the close-out of the Brownfields grant or beyond that approved by our existing information collection request approved under the Paperwork Reduction Act by OMB.</p>	Brownfields and RCRA CA should work with states to improve communication about the CPRM and to verify that the appropriate forms are completed. (1 st qtr FY15)

1c	UST staff to obtain and review grantees' supporting documentation for a selected sample of sites designated PFP and RAU and verify that the grantees provided information in the appropriate OSWER databases.	Congress has designed and funded the UST program for state implementation primarily. States make site-specific cleanup decisions, including determining when a site is clean enough to be closed. EPA works with state partners to provide regulations, guidance, policy, and funding resources to support the infrastructure of state UST program so that the private and state resources can directly finance the fieldwork necessary to clean up releases from federally regulated tanks releases.	UST staff should work with states to properly submit data into OSWER's data system and perform appropriate QA/QC checks. (1 st qtr FY15)
2.	After CPRM interim guidance is finalized, provide training to regional OSWER staff responsible for verifying states' PFP and RAU designations to ensure staff are informed of the guidance and what is required	As noted earlier, the draft's authors may have misunderstood the context for the "interim" nature of the CPRM guidance. Nonetheless, OSWER will improve communications with the EPA regions on the CPRM tracking and reporting of contaminated sites by issuing a memo from the Assistant Administrator to the regions providing additional information on the measures, how they are used, and expectations for reporting.	OSWER AA should issue a memo to the regions to ensure staff are informed of the CPRM guidance, how the measures are used, and what is required. (1 st qtr FY15)
3.	Stipulate the following in the grant agreements for each program:		
3a	For Brownfields, require states to track the status	The Federal Brownfields program, in accordance with the Brownfield amendments to CERCLA, is a national competitive grant program. It is not a regulatory or state-delegated program. In keeping with this grant authority, Brownfields property	OBLR should expand ACRES training to place greater emphasis

	and type of reuse of remediated sites and report that information to OSWER.	cleanups are managed by the grant recipient and assessment and cleanup activities are reported at a point in time to document grant funded activities. Moreover, while EPA brownfield grants fund assessment or cleanup, but not redevelopment, property specific reuse information often is not available at grant closure to report. Finally, the internal CPRM measures are a snapshot in time and are not meant to track the changing conditions at a site. As mentioned earlier, EPA cannot require grantees to enter information about site activities after the close-out of a Brownfields grant. Specific details about the scope of state VCP programs can be found in the State Brownfields and Voluntary Response Program report, available online at http://www.epa.gov/brownfields/state_tribal/pubs.htm .	on grantee reporting and enrollment of property cleanups in State and Tribal VCP programs, where feasible. (1 st qtr FY15 - ongoing)
3b	For RCRA CA, whenever there is a change in site conditions or site use, require states to revise the RCRA CA determination form to reflect the changes and have states re-submit the form to OSWER.	For the delegated CA states, cleanup decisions are made by states, EPA's recognition of such cleanup decisions are based on these state decisions, and that the RAU is simple a cumulative sum of these state cleanup decisions.	ORCR should continue to recommend that when Regions or States become aware of a change in site conditions or site use that impacts the status of PFP or RAU, they should revise the PFP and RAU determination and revise the forms.
3c	For UST, require states to submit to OSWER and make publicly available site-specific information, including site name.	States are the primary implementing agencies and make site-specific cleanup decisions, including determining when a site is clean enough to be closed. EPA works with state partners to provide regulations, guidance, policy, and funding resources to support the infrastructure of state UST program so that the private and state resources can directly finance the fieldwork necessary to clean up releases from federally regulated tanks releases.	This recommendation does not match the nature of the UST program and should be deleted.

CONTACT INFORMATION

If you have any questions regarding this response, please contact Brigid Lowery, Director, OSWER Center for Program Analysis on 202-566-0198.

Distribution

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