

**Guides to Chemical
Risk Management**

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How Safe Am I?

Helping Communities Evaluate Chemical Risks



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The Current Status of the Risk Management Program Rule

As of the publication date of this backgrounder, key elements of EPA's Risk Management Program Rule are still not final. Public access to the offsite consequence analysis data continues to be debated. EPA has not officially decided on how it will respond to Freedom of Information Act requests. The agency has said that while the offsite consequence analysis data will not be distributed to the public on the Internet, it will supply paper copies of the data upon request. Also, EPA intends to increase the reportable quantity of hydrocarbon fuels (i.e., propane). Concurrently, the U.S. Court of Appeals granted an interim stay of the Risk Management Program Rule as it applies to facilities using propane in a process. For the most current information, see <http://www.epa.gov/ceppo>.

For More Information

The National Safety Council is maintaining the Chemical Emergency Management Web site at www.nsc.org/xroads.htm as a resource supplement to this series of publications. The site is a directory of Risk Management Program-related links to organizations, regulations, chemicals, rules, and regulations involved in emergency management and the safe handling of chemicals. A selection of articles and papers written about the Risk Management Program Rule and local efforts to identify and analyze risk in the community is also included. The site will be constantly expanding as industry and communities develop new information required under the Risk Management Program Rule.

Other Publications in this Series

Other documents in the Guides to Environmental Risk Management Series are listed below:

- New Ways to Prevent Chemical Incidents
- Chemical Safety in Your Community: EPA's New Risk Management Program
- What Makes a Hazard Hazardous: Working with Chemical Information
- Evaluating Chemical Hazards in the Community: Using an RMP's Offsite Consequences Analysis

These documents can be downloaded for free from the Chemical Emergency Management Web site at www.nsc.org/xroads.htm.

About this Document

The Environmental Health Center produced this guide under cooperative agreement CX 826604-01-0 with the U.S. Environmental Protection Agency. It is part of a series of publications on the Risk Management Program Rule and issues related to chemical emergency management.

How Safe Am I?

Helping Communities Evaluate Chemical Risks

Journalists face a tough but important task in reporting new information about potential chemical accidents. Local coverage can help the public decide whether to ignore risks or demand better management.

Evaluating Chemical Risks—One Community's Story

The Richmond County School Board in Augusta, Georgia, has been accused of courting disaster by building a \$20 million high school 670 yards from two large chemical plants. Others in the community were not concerned. This example illustrates how information from a facility's risk management plan (RMP) can affect community decision making and benefit more than one point of view.

In July 1998, the U.S. Environmental Protection Agency (EPA) presented accident modeling data showing that the planned site for the high school was inappropriate because of its proximity to Rutgers Organics and Amoco Polymers, two plants that use large amounts of hazardous chemicals. Richmond County Emergency Management Director Pam Tucker requested the EPA report. EPA's projected accident scenarios foreshadowed the real thing.

On November 17 and 20, 1998, General Chemical Corporation in Augusta, Georgia, accidentally released sulfur dioxide and sulfur trioxide, which become deadly sulfuric acid when they come in contact with moisture. The two General Chemical incidents sent more than 80 people complaining of eye and lung

irritation to area hospitals. The first release occurred at 2:35 p.m., while students were still in school. Students and teachers at an elementary and a middle school located less than two miles away were affected. The elementary school has a shelter-in-place program, but it received no warning of the November 17 release.

There was a two-hour delay between the first release and when emergency personnel were notified. Amoco Polymers, near where the high school is being built, stores 800 times as much sulfur trioxide as does General Chemical, according to the *Augusta Chronicle*.

Augusta Chronicle reporters Robert Pavey and Faith Johnson were there. Johnson's November 19th story provides a concerned parent's assessment of the first accident. "That's exactly the type of thing we're concerned about," stated Dietrich Dellerich, a member of Citizens for Fair Schooling. "We're concerned about all of the schools near chemical plants, but to put a \$20 million investment under one of the plants is ludicrous. I hope and pray nothing ever happens near the new school, but you can't eliminate human error. You have to eliminate the risk."

Other Augusta citizens believe they can live with these risks, the *Chronicle* reported. The school board has approved the high school's construction. Seven schools, including the middle school and an elementary school affected by the November releases, are already located less than two miles from an area of Richmond County

with a significant concentration of chemical plants.

Deputy School Superintendent Gene Sullivan is one of those who view worry as needless. He was quoted in a December 12, 1998, *Chronicle* story as saying, "The area is booming; people are buying and building homes there. We keep harping on this issue: If it's such a scary area, why are people continuing to live and move there? We are building the school where the people live."

To prevent accidents, an estimated 66,000 facilities—chemical plants, oil refineries, propane retailers, fertilizer warehouses, ammonia users, and water treatment plants—must comply with EPA's Risk Management Program Rule (RMP Rule) by submitting a summary of their RMPs by June 21, 1999. The RMPs must be filed if any process at a site contains more than specified amounts of 140 hazardous substances, such as propane, ammonia, or chlorine. Much of the information contained in the RMPs will be readily available to the public.

The RMP Rule requires these facilities to identify the hazardous chemicals they store and use, analyze the risks of these chemicals to

Population Protection: Shelter-in-Place

Shelter-in-place programs use warning signals to alert people who live near chemical plants to protect themselves from dangerous gas releases by closing doors and shutting windows.

The RMP Rule

The RMP Rule focuses on preventing emergency chemical releases, reducing risk to the community from exposure to hazardous chemicals, and minimizing the consequences of releases on the environment. This is achieved by evaluating hazards, expanding industry accident prevention programs, and coordinating facility and community emergency response programs.

RMPs will be of interest to community members, including the news media, because they provide new information about areas vulnerable to toxic and flammable chemicals. This information can be used to alert the public to chemical risks, allowing people to learn about their community's vulnerability. An RMP does not identify the specific levels of risk, nor does it tell communities what to do about potential problems. These are local decisions. The media can assist communities in obtaining and interpreting RMP information, identifying previously unknown hazards, and presenting options for coping with these hazards. Such efforts can lead communities to increase their interaction with facilities, which in turn can lead facilities to further reduce the risks.

the surrounding community, and develop emergency response plans in the event of a release. This information is summarized in the RMP. Facilities will submit the RMP to the EPA. EPA will distribute this new generation of right-to-know information dealing with chemicals and potential community hazards to state and local implementing agencies and the public.

The Augusta situation illustrates the way release projection data, like the kind that RMPs include, as well as incidents and their local coverage, have informed local citizens. Some people find the risk in this situation intolerable. Others choose to live with the risk and insist on better emergency planning from the plants, schools, and emergency response groups.

Why Cover This Story?

Many communities will be interested in learning about hazardous chemicals that can jeopardize their health. They also will be interested in finding out the level of risk

posed by local facilities. Chemical hazards are more likely to be addressed if local stakeholders—people who would be affected by an accident—know about potential problems and have a say in their solution. Stakeholders include individuals such as company managers, workers, and stockholders; neighboring residents and workers; and local officials.

More than a decade ago, the Emergency Planning and Community Right-to-Know Act (EPCRA) began providing communities with information about the size of local facilities' chemical inventories and the amounts of hazardous chemicals they release. Local emergency planning committees (LEPCs) and local emergency authorities have used that information to plan for and respond to incidents. The information provided by an RMP can help communities determine if current emergency plans are adequate.

Different communities will reach different decisions about the information they learn from RMPs. According

to Carole L. Macko of the EPA's Chemical Emergency Preparedness and Prevention Office, "The final evaluation of risk will be made by the public and officials at the local level." Without local coverage, though, RMPs will be like the proverbial tree that fell in the remote forest without being heard. News audiences will be interested in the reactions of local emergency authorities, government officials, business leaders, facility managers, neighbors, and environmental groups to RMP content. News coverage can help people evaluate their options. Some communities may think they have to live with poorly managed hazards when there may be alternatives. Once they know about hazards and risks, communities can choose to use or ignore that knowledge.

How to Get RMPs

EPA assumes that the majority of the RMPs will be submitted electronically, and the agency plans to make all but the offsite consequence analyses (OCAs) available to the public over the Internet by September 1, 1999. The information will be available through the RMP*Info database. Check EPA's Web site at <http://www.epa.gov/ceppo> to locate RMP*Info. From this database, the news media can learn about local chemical hazards by merely typing in ZIP codes of interest.

The Clean Air Act mandated that EPA make RMP information readily available to the public. Through public disclosure, Congress intended to save lives, reduce accidents, limit pollution, and protect property. Initially, EPA planned to post all of the data on the Internet—freely available to

all. However, on November 5, 1998, EPA announced it would not include the OCA portion of the RMP data in the online database because this particular information could be used by terrorists to identify mass casualty targets. The regulated industries, led by the Chemical Manufacturers Association (CMA) and the Federal Bureau of Investigation, successfully lobbied EPA to withhold this information from RMP*Info.

As of publication of this background, all RMP data is still subject to the Freedom of Information Act—although congressional initiatives maybe underway to block this avenue. (For more information on the debate, see the National Safety Council Environmental Health Center's April 1999 issue of *Environment Writer* at the NSC EHC Web site) LEPCs or State Emergency Response Commissions (SERCs) are another source for RMPs. So are the regulated facilities; many, in fact, have already been communicating their RMPs in a variety of public forums. CMA is recommending that its members share RMP data with the community.

Reporters should periodically review RMP*Info and other sources. New information may create opportunities for new stories. New sites may open, or existing sites may expand their chemical inventories to the point at which they exceed a threshold quantity so they must submit an RMP. Sites must also revise their RMP if processes change or accidents occur.

Identifying Hazards

Communities will be interested in the hazard assessment information

Hazardous Areas Identified in Hypothetical Offsite Consequence Analysis

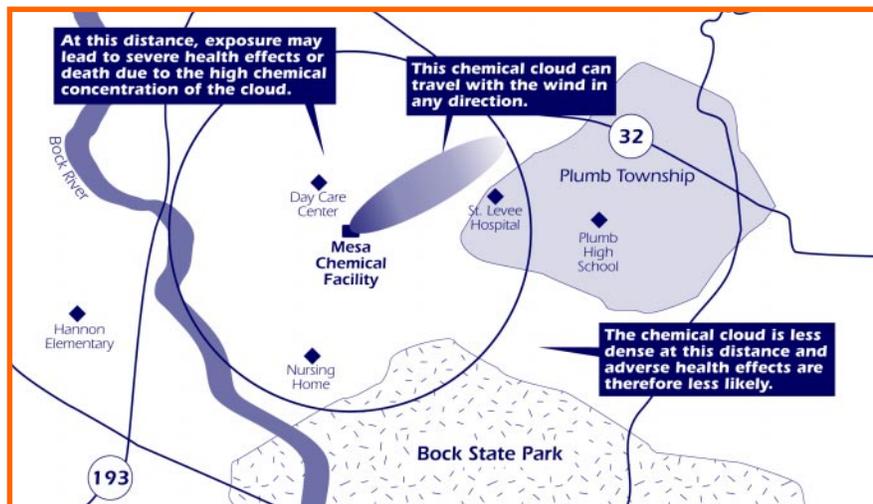


Figure 1: The OCA identifies neighbors and sensitive areas endangered by a possible chemical release.

provided in RMPs. This section will contain information from the OCA on (1) a worst-case toxic release, (2) an alternative toxic release, (3) a worst-case flammable release, or (4) an alternative flammable release.

Worst-case and alternative release scenarios identify the area and population that may face a hazard if these events occur. The media and other concerned parties can use graphic representations to display areas that may be in danger from these events (figure 1). In addition, the Rutgers Center for Environmental Communication *Outreach Materials About Risk Management Plans: Guidance from Pilot Research* provides information on the most effective designs for these particular graphics for communicating to the public.

The impact of worst-case release scenarios will often be the most sensational part of an RMP. As explained in more depth in the companion publication, *Evaluating Chemical Hazards in the Community: Using an RMP's Offsite Consequence Analysis*, these scenarios assume that catastrophic accidents

occur under extreme, specified conditions. Worst-case scenarios assume that the total quantity of the substance is quickly released, that atmospheric conditions will maximize the effect of the event, and that no mitigation or response actions are taken. Though these scenarios represent an extremely unlikely chain of events, they provide a way to compare the maximum consequences that can result from different processes. This comparison enables emergency planners and others to rank processes by priority for further scrutiny.

Many facilities must also develop and report analyses of alternative release scenarios. These scenarios provide a more realistic prediction of hazards that can be created by accidents. They will often predict hazards that are much less dramatic than those forecast by worst-case release scenarios. The scenario may even be based on the facility's accident history. Alternative release scenarios provide more practical information to emergency planners and the public.

What Questions Do Citizens Want Answered?

Experts say that when citizens learn about hazardous chemicals used near them, they most want answers to questions such as—

- What are the health effects of hazardous substances at the site?
- Are community injuries or deaths likely from this site's hazards?
- How does it affect the environment?
- Is the facility addressing this potential risk?
- Are there alternative chemicals that can be used?
- Are community planners and responders aware of the facility's emergency response plans?
- How can I independently verify this chemical risk information?
- Is the facility reducing, eliminating, and preventing possible risks?

The extent to which design of the process can limit and control releases is reflected by the alternative release scenario. These more useful scenarios also provide an important indicator of the degree to which emergency response planning helps to reduce hazards that may be created.

News media willing to pursue and report OCA information will provide many community members with their only view of this vital information. EPA will make most of the RMP data available on the Internet (with the major exception of the OCAs), including data on registration, accident history, accident prevention, and emergency response. This information must be considered with OCA data when identifying risk. An RMP includes the accident history of the facility's process for the past five years. Combined with local knowledge of other incidents at the facility, the facility's track record provides an important indicator.

The RMP also summarizes the facility's emergency response plan. Its ability to cope with releases, and the community's ability to respond to emergencies, are

also very important risk factors to consider.

What's Safe?

RMPs present communities with complex decisions. The news media can assist citizens in determining whether local chemical hazards should be ignored, eliminated, reduced, or better managed by considering what counts as safe for facilities and communities. The following discussion can help reporters sift through the information and provide communities with guidelines for evaluating facilities.

The past is prelude to the future. To assess the level of commitment to safety, reporters researching a story may want to look at the RMP section that details a facility's five-year accident history. The five-year accident history may be the most informative section of an RMP. A history of safety is generally a good predictor of future safety.

Safe facilities have several high-level personnel anticipating and addressing chemical safety problems. Research conducted by Caron Chess et al. (1992) suggests that top-level managerial commitment to safety increases the likelihood that organizations make improvements as a result of

independent safety inspections, accidents, and community input. Chess continues to say that safety should not be either one person's concern or everyone's. She found that organizations that perform well at risk management employed several top managers to identify and solve safety problems. In fact, healthy competition developed between the managers, and bad news was more apt to travel upwards. The production manager, safety manager, environmental engineer, vice president for public relations, industrial hygienist, and the human relations manager all wanted to claim credit for identifying and solving problems (Chess et al. 1992).

Budget allocations suggest priorities. Safe facilities have managers who take proactive steps to identify safety problems. Instead of waiting for accidents to reveal weaknesses, these facilities have line items in their budgets to conduct routine safety audits, inspections, and emergency drills. They secure multiple, independent safety audits from international, national, and local inspectors. Sometimes they use monetary rewards to encourage line workers to alert supervisors to safety problems.

Emergency response is built on strong industry-government working relationships. Donna Majewski is responsible for safety at Great Lakes Chemical (GLC) in West Lafayette, Indiana. Several years ago, that facility had an accidental release of bromine, a chemical somewhat similar to chlorine in its capacity to harm lungs and eyes. Two workers were hospitalized because of the release, and children at a nearby daycare center were evacuated.

Majewski said that before the accidental release, GLC

had no representation on the Tippecanoe County LEPC. After the release, and the adverse publicity resulting from it, GLC management has been much more visible and helpful in addressing chemical safety concerns. For example, Majewski now meets regularly with the Tippecanoe County LEPC. She chairs its vulnerability committee, which attempts to identify problems throughout north-west Indiana in hazardous chemical management before they become tragedies. The company also has sophisticated hazardous materials response equipment it now shares with the community.

Safe facilities encourage and learn from community input. One company that uses community concern to improve its operations is Sybron Chemicals of Birmingham, New Jersey. In 1988, Sybron released an acrid-smelling substance that caused area firefighters to evacuate citizens. In addition, a plant fire at the company seriously injured two workers. The community became hostile toward the company because of these incidents.

Top management might have reacted by stonewalling. Instead, the company invested money and time in developing systems that used community input to make the facility safer. The company installed the Prompt Inquiry and Notification System (PINS), a telecommunications systems that can automatically dial Sybron's neighbors in the event of an emergency. In the inquiry mode, PINS works like a sophisticated answering machine and plays recorded messages about the plant's status to those who call in. Callers can

also leave messages requesting further information.

Sybron does not use the PINS system to placate neighbors but rather to spot problems and fix them. Managers are rewarded for their responses to PINS inquiries. Another innovative step Sybron has taken is to train volunteers to identify and report odor problems in a precise way.

Safe facilities are situated in communities with high safety standards, regular inspection programs, and an assertive LEPC. Communities have the power to insist that those who handle hazardous chemicals do so responsibly. Two mechanisms for enforcing local safety standards are routine inspections and active LEPCs. In large communities like Fairfax, Virginia, the county government routinely inspects and issues operating permits to drycleaning plants, printers, newspapers, and other facilities that handle hazardous substances. For example, Steve

Dayton, manager of the MBC Reproexpress copy shop in Fairfax, says that when he used anhydrous ammonia to produce blueprints, Fairfax County inspectors appeared periodically to ensure that his ammonia tanks were chained to the wall, as local codes required.

In less populated areas, inspection may be more a matter of routine conversations between the emergency authorities like the fire chief and facility managers. Whether inspection is a formal or an informal process, its use should reduce the risks associated with hazardous substances.

Effective LEPCs result in strong emergency management programs. Another indicator of local government's alertness to its role in preventing chemical accidents is the adequacy of the LEPC. LEPCs should meet regularly to identify trouble spots. Typically, LEPCs include local emergency management directors, fire

How Effective is your LEPC?

LEPCs play a key role in managing chemical hazards in the community. Congress envisioned the LEPCs to identify chemical hazards, plan for emergencies, communicate risk, and engage all stakeholders in a common goal of public safety. Questions to pursue include the following:

- Does the LEPC have a broadly based membership? Does it meet regularly?
- Does the LEPC have information on hazardous chemical inventories throughout the community available for review?
- Have vulnerable populations (e.g., schools, nursing homes, hospitals, residences) been identified?
- Has the LEPC prepared and kept current site-specific emergency response plans?
- Has the LEPC conducted drills and exercises?
- Has the LEPC developed and communicated evacuation or shelter-in-place strategies?
- Have hazard analyses been integrated into fire and police response plans?

Writing a Story: Questions Reporters Might Ask a Facility Manager

- ❑ Who is in charge of safety? What are their names and duties?
- ❑ What safety programs are in place?
- ❑ Why does the facility use hazardous chemicals? Could the facility reduce reliance on them or do without them? Would doing so improve community safety?
- ❑ What routine training is provided for those who conduct emergency response?
- ❑ What are some ways the facility and the LEPC predict or anticipate accidents?
- ❑ How often does the facility conduct emergency response drills? When was the most recent one? What was learned?
- ❑ Does the facility have warning sirens that alert the community to dangerous releases? Do workers and neighbors recognize them? When was the last time they were tested?
- ❑ Were accident prevention and emergency plans developed internally or was outside help used?
- ❑ Describe some of the routine steps taken to ensure safety. Describe steps taken to maintain equipment and operate it safely.
- ❑ Does the facility use internal or independent, third-party audits to evaluate the adequacy of the accident prevention program?
- ❑ Does the facility send a representative to the community's LEPC meetings? If so, who? Does this individual communicate routinely with the community about safety and emergency response?
- ❑ What worries the plant manager the most about safety at the facility?
- ❑ If the facility is a chemical manufacturer, reporters can ask engineers to describe the codes of practice involved in Responsible Care, a safety program developed by the Chemical Manufacturers Association, and for illustrations of how those practices are implemented.

chiefs, industry leaders, interested citizens and, occasionally, media representatives. According to Tim Gablehouse, a Denver-area attorney and former emergency responder, LEPCs have significant authority, if they choose to use it. He says they can ask for any information that's relevant to preventing accidents.

Acceptable risk will vary by community and even location within the community. One community's infrastructure, environment, budget, and regulatory framework might be able to handle certain chemical processes that create intolerable risks in another. A community might believe hazardous substances

are used safely within a company's walls, but want their LEPC to inquire about the routes used to transport hazardous substances into their areas. For example, Gablehouse lives near the Rocky Mountains. Rocky Mountain delivery routes for hazardous chemicals add an extra element of risk that Gablehouse's area must consider. In Baton Rouge, Louisiana, the LEPC invites a U.S. Coast Guard representative to meet with its members to help them plan for emergencies involving hazardous chemicals carried by Mississippi River barges.

Safe facilities operate in communities with alert local media. The news media

can help communities interpret local RMPs by following some of the steps taken by *Augusta Chronicle* reporters who had access to RMP-like information in 1997. Meghan Gourley, who covered some of these 1997 stories for the *Chronicle*, said the biggest obstacle she encountered came from plant managers' worries that her stories would panic the public.

"The idea is to be up front, but fair," Gourley said. "In no uncertain terms, say [in a story] that worst-case scenarios are practically impossible. Focus on those scenarios that are more likely. Be sure to detail not only the elements of the disaster, but what steps officials are taking to help prevent the disaster." Gourley recommends asking facility managers lots of questions and suggesting they answer as though the reporter was a teenager.

Community Reaction

In communities like Augusta, Georgia, where RMP-like information has already been reported, citizens generally have reacted by being concerned about their personal safety. They have tended to decide they are willing to live with hazardous chemical risks if facilities can ensure good warning and emergency response systems. Once accidents occur, communities are often less tolerant. The news media can assist both communities and facility managers by helping facilities develop risk management or risk reduction plans the community finds acceptable, instead of waiting for accidents that harm people.

Annotated List of Risk Links and Documents

References and links to documents or Internet sites should not be construed as an endorsement of the views contained therein.

Federal Information

EPA's Chemical Emergency Preparedness and Prevention Office
<http://www.epa.gov/swercepp/acc-pre.html>

EPA's web page for Chemical Accident Prevention and Risk Management Planning provides very useful, comprehensive information. Examples of available information include fact sheets, questions and answers, newsletters, links to non-EPA sites, the Clean Air Act section 112(r) legislation, the List of Regulated Substances and Thresholds for Accidental Release Prevention, the Risk Management Program Rule regulations, technical guidance documents, and many other resources. EPA will maintain an online database of all RMPs—in RMP*Info.

Nonprofit Organizations

National Safety Council
<http://www.nsc.org/xroads.htm>

The Environmental Health Center's Crossroads Chemical Emergency Management page is designed to expand and strengthen the network of organizations involved in emergency planning and response, chemical safety, and hazardous chemical rules and regulations. This Web page will continually evolve to feature a comprehensive risk communication repository focusing on the Risk Management Program Rule. Additional useful resources not included in this document can be found at this Web site.

Background Books and Articles

Risk Assessment and Risk Management in Regulatory Decision-Making
<http://www.riskworld.com/Nreports/1997/risk-rpt/volume2/pdf/v2epa.PDF>

The Presidential/Congressional Commission on Risk Assessment and Risk Management. 1997. *Risk Assessment and Risk Management in Regulatory Decision-Making*, Final Report, Vol. 2. Washington, DC: Government Printing Office.

Risk: The Policy Implications of Risk Compensation and Plural Rationalization

Adams, John. 1995. *Risk: The Policy Implications of Risk Compensation and Plural Rationalization*. London: University College of London Press.

The chapter presents four common orientations. Individualists see nature as robust and able to withstand assaults by people; egalitarians view nature as fragile and precarious; hierarchists believe nature will be good to them, if properly managed; and fatalists believe nature is capricious and unpredictable.

Chemicals, the Press, and the Public
<http://www.nsc.org/ehc/guidebks/chemtoc.htm>

Environmental Health Center. 1989. *Chemicals, the Press, and the Public: A Journalist's Guide to Reporting on Chemicals in the Community*. Washington, DC: Environmental Health Center, National Safety Council.

“The final evaluation of risk will be made by the public and officials at the local level.”

Carole L. Macko
EPA Chemical Emergency
Preparedness and Prevention Office

The Organizational Links Between Risk Communication and Risk Management: The case of Sybron Chemicals Inc.

Chess, C., A. Saville, M. Tamuz, and M. Greenberg. 1992. The organizational links between risk communication and risk management: The case of Sybron Chemicals Inc. *Risk Analysis*, 12, 431-438.

Outreach Materials about Risk Management Plans: Guidance from Pilot Project Research

<http://aesop.rutgers.edu/~cec/pubs/rmprpt.pdf>

Daniel Kovacs, Ginger Gibson, Caron Chess, William Hallman. 1998. *Outreach Materials about Risk Management Plans: Guidance from Pilot Project Research*. New Brunswick/Piscataway: Cook College, Rutgers, the State University of New Jersey

Compliance Strategies and Regulatory Effectiveness of Performance-Based Regulation of Chemical Accident Risks

Chiander, Karen R., Kleindorfer, Paul R., & Kunreuther, Howard C. 1998. Compliance strategies and regulatory effectiveness of performance-based regulation of chemical accident risks. *Risk Analysis*, 18, 135-143.

CMA, House Leaders Want Chemical Disaster Scenarios Offline
<http://www.nsc.org/ehc/ew/issues/ew99apr.htm>

Davis, Joseph A. 1999. CMA, house leaders want chemical disaster scenarios offline, *Environment Writer*, Volume 11, No. 1, April 1999.

Journalism

Meghan Gourley and others at the *Augusta Chronicle* wrote about two releases of toxic chemicals from one chemical plant that affected the surrounding community on November 18 and 21, 1998. These stories illustrate community concern over local hazards, and factors that impact risk. Some of these articles are listed below. Reporters at the *Chronicle* can be reached at (800) 622-6358, Meghan Gourley at x3227 and Robert Pavey at x119. E-mails for these reporters are Meggit@hotmail.com and Rpavey@augustachronicle.com.

- ❑ Hearings: School Chief Calls Plant Scare Minor, http://www.augustachronicle.com/stories/011299/met_160-1348.000.shtml
- ❑ Some Schools Now Close to Hazards, http://www.augustachronicle.com/stories/013099/met_160-1400.001.shtml
- ❑ Chemical Spill Concerns School Officials, http://www.augustachronicle.com/stories/112098/met_COL-2409.001.shtml
- ❑ School leader Denies Findings of EPA Report, http://www.augustachronicle.com/stories/081598/met_COL-6845.001.shtml
- ❑ Latest Release Stirs school Location Debate, http://www.augustachronicle.com/stories/112198/met_gas3.shtml
- ❑ Reports Show Plant Has History of Slow Notification, http://www.augustachronicle.com/stories/112198/met_gas1.shtml

Organizational Contacts

U.S. Environmental Protection Agency

Contact: Carole Macko, Communications Team Leader,
Chemical Emergency Preparedness and
Prevention Office

Address: U.S. Environmental Protection Agency
401 M Street, SW 5104
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Phone: (202) 260-7938

E-mail: macko.carole@epamail.epa.gov

Chemical Manufacturers Association

Contact: James Solyst, Team Leader, Information
Management/Right-To-Know

Address: Chemical Manufacturers Association
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Phone: (703) 741-5233

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Web site: <http://www.rkt.net/wcs>

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The Environmental Health Center (EHC) is a division of the National Safety Council, an 85-year-old nonprofit, nongovernmental organization. The National Safety Council is a national leader on accident prevention and home, workplace, auto, and highway safety issues.

The National Safety Council established EHC in 1988 to undertake environmental communications activities aimed at helping society and citizens better understand and act knowledgeably and responsibly in the face of potential environmental health risks. Since that start, EHC has built a strong record of effective, nonpartisan communication on environmental health risks and challenges.

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