



EPA Region 10 CAA 112(r) Update

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Latest News on the Accidental Release Prevention Requirements of the Clean Air Act

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RMP Implementation Workgroup Formed

The RMP Implementation Workgroup has been created under the Accident Prevention Subcommittee, one of seven subcommittees under the Clean Air Act Advisory Committee. The purpose of this workgroup is to address the technical and practical issues associated with RMP implementation, a process that must be completed by 1999. The workgroup will identify these issues and then form subgroups charged with proposing appropriate tools and activities to resolve the issues. The Federal Register Notice announcing this group was published on _____. Staff from EPA Region 10 are on the workgroup.

At a minimum the Workgroup plans to address the following topics: implementation guidance, audit protocol and guidance, general guidance for industry, offsite consequence guidance, RMP*Info and RMP*Submit, training, model RMP guidances, and guidance for LEPCs.

The workgroup began meeting in July and will complete its work by December 1998. Information on workgroup activities can be found in the Internet at <http://www.epa.gov/swercepp>. Public comments are welcome and encourage ON all workgroup issues.

Variety of Guidances in Development and Review Phases

EPA is required by statute to develop guidelines to assist sources in the preparation of their risk management plans and programs. EPA is developing model risk management plans and programs for a variety of industry sectors. The model guidances (and anticipated release dates) in development by EPA and trade associations target the following industries and/or processes: ammonia refrigeration (late spring, 1998), propane distributors

and users (December, 1997), warehouses (early spring, 1998), chemical distributors (early spring, 1998), and POTW (late 1998).

EPA has provided comments and review on model guidance for 1) drinking water systems being developed by the American Water Work Association Research Foundation (due December, 1997); 2) exploration and production wells being developed by the American Petroleum Institute; and 3) agricultural retailers initiated by the Fertilizer Institute.

Status of RMP*Submit and RMP*Info

1. Summary of the recommendations in the Electronic Submission Workgroup Final Report

- Based on its analysis, the Workgroup offers the following recommendations for the RMP Submission System (which the Workgroup named RMP*Submit):

- develop a user-friendly PC-based system available on diskettes and via the Internet;
- mandate that RMPs be submitted electronically and provide an "electronic waiver" for facilities that are unable to comply;
- use a standards-based open systems architecture;
- ensure that RMP*Submit can perform data quality checks, accept limited graphics, allow use of model plans, and provide on-line help including defining data elements and instructions;
- automatically notify State Implementing Agencies when an RMP in their jurisdiction has been updated;
- accommodate additional State chemicals and lower thresholds if, during the development

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EPA Region 10, WA Ops Office

The Update is a monthly newsletter on issues relating to the Accidental Release Prevention Requirements of the Clean Air Act.

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phase, it is found to be technically feasible to program into the software.

For the RMP Access System (named RMP*Info) the Workgroup offers the following recommendations:

- establish a central system (RMP*Info) to provide access to RMPs;
- make all RMP data (with the exception of the offsite consequence analysis (OCA)) available unrestricted on the Internet (a decision has not yet been made on how to make the OCA data available to the public);
- make RMP*Info available through EnviroFacts;
- make RMP*Info available to the public on January 4, 1999 with the caveat that it will not be complete until sometime after June 21, 1999.
- allow RMP*Info to contain historical records for fifteen years;
- provide direct access to RMP data for State and local Implementing Agencies;
- make RMPs available through multiple mediums such as the Internet, diskette, and paper; and
- ensure that RMP*Info provides search, report, and help features.

The complete Workgroup final report is at <http://www.epa.gov/swercepp/pubs/rmp-rprt.html>.

2. Security Study - Recent national events has raised concern about the public availability of the off-site consequence analysis data. EPA is undertaking a 'security study' to analyze the potential impact of misuse of the OCA data.

3. The NEW "Electronic Submission Software Development" Webpage is up. EPA has created a new Web page (<http://www.epa.gov/swercepp/rmp-dev.html>) devoted entirely to the development of the Electronic Submission Software.

4. Decision on Software Platform. EPA has decided to develop RMP*Submit to run on a 386 or higher Windows PC only. This means RMP*Submit will not run on a DOS PC or a Macintosh computer. This decision was based on cost. We estimated that it would cost less to do data entry for the facilities who use DOS or Macintosh (we estimated 10% of facilities) than to develop a new system for them. We looked into cross-platform products such as FileMaker Pro, but because the RMP*Submit development contract does not currently have this expertise, it could cause a delay in the schedule. Commercial software vendors will be able to develop software for the Macintosh market.

Under the Clean Air Act, a party may challenge a rule by filing a petition for review in the appropriate Federal court within 60 days of the rule being published. After EPA promulgated the List and Threshold rule in 1994 and the Risk Management Program rule in 1996, various parties filed petitions for review of each rule. EPA has reached settlements with all parties challenging the List and Threshold rule and is in negotiation with the parties that challenged the Risk Management Program rule. The status of these cases is summarized below.

List Rule Litigation:

American Petroleum Institute v. EPA, No. 94-1273 (DC Cir.) & consolidated cases

The American Petroleum Institute (API), the General Electric Company (GE), and the Institute of Makers of Explosives (IME) filed petitions for review of the List Rule in 1994. Each of the litigants focused on different aspects of the rule: API focused primarily on the coverage of regulated flammable substances and the definition of stationary source; GE focused on the criteria used for listing regulated toxic substances, setting thresholds, and the process for petitioning to list or delist chemicals; and IME focused on the coverage of explosives.

In March, 1996, EPA reached settlements with API and IME that led to proposed amendments to the List Rule in April, 1996. EPA agreed to propose deleting explosive substances from the List based on IME establishing that Federal regulation of explosives under other programs protected the public from the hazard for which explosives were listed and based on a voluntary industry program to conduct right-to-know outreach and to better coordinate with emergency responders. In settling the API case, the parties worked together to better define rule provisions affecting flammable mixtures so that the rule did not cover sources that EPA had not originally intended to cover, such as gasoline stations and oil and gas wells. In the course of settling the API case, API developed additional research related to the hazards associated with oil and gas exploration and production to better characterize the type of risk presented by such sources.

In April, 1997, EPA reached a settlement with GE that resolved the remaining challenge to the List Rule. EPA agreed to propose to vacate the listing for hydrochloric acid solutions with

Where to Get More Information

Contact the Emergency Planning and Community Right-to-Know Hotline at (800)424-9346 or (703)412-9810.

Visit the 112(r) CEPPPO Home Page at www.epa.gov/swercepp/acc-pre.html

Contact your EPA Region 10 representative, Melanie Hoff, at (360)753-9477 or hoff.melanie@epamail.epa.gov

Litigation Status

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concentrations of hydrogen chloride from 30% up to 37%. The GE case raised issues that potentially affected the entire list; by this settlement, EPA has ensured that the compliance date of June 21, 1999 will not be impacted for the highest concentrations of hydrochloric acid and for all other chemicals. EPA intends to analyze the chemical properties of hydrochloric acid and how they relate to the listing and threshold criteria for the program.

Risk Management Program Rule Litigation

Chlorine Institute v. EPA, No. 96-1279 (DC Cir.) & consolidated cases

Negotiations are ongoing with the six parties that filed petitions for review of this rule (Chlorine Institute, American Petroleum Institute, Fertilizer Institute, National Propane Gas Association, International Institute of Ammonia Refrigeration, and Chemical Manufacturers Association). Petitioners' issues include challenges to the offsite consequence analysis provisions, trade secret and confidential business information protection, transportation-related concerns, and various industry-specific issues, including matters related to model plans.

ISO 14001 - An Option for the RMP Rule?

(Note: This summary is based on a paper entitled: "Use of an ISO 14000 Option in Implementing EPA's Rule on Risk Management Programs for Chemical Accidental Release Prevention," Irv Rosenthal and Donald F. Theiler. Presented for discussion at a Roundtable sponsored by the Wharton School of the Univ. Of PA, The LaFollette Institute of the Univ. Of WI, the PA Dept. Of Environmental Protection and the WI Dept. Of Natural Resources with the support of EPA's Chemical Emergency Preparedness and Prevention Office and EPA Regions III and IV.)

Introduction

Section 112(r) of the 1990 Clean Air Act Amendments (CAA) sets forth a series of requirements aimed at preventing and minimizing the consequences associated with chemical accidental releases. These requirements are the basis of EPA's rule on "Risk Management Programs for Chemical Accidental Release Prevention" (the Rule) promulgated on June 20, 1996. The Rule applies to facilities (both public and private) that manufacture, process, use, store, or otherwise handle regulated substances at or above specified threshold quantities ranging from 500-20,000 pounds. EPA estimates that approximately 66,000 facilities nationwide will be regulated under the Rule. Some of these facilities

are large, while a great number are small- to medium-size facilities, such as propane distributors and users, drinking water chlorination plants, and ammonia refrigeration facilities.

The Rule requires all regulated facilities to prepare and execute a risk management program which contains the following elements:

- A hazard assessment to determine the consequences of worst case scenario and other accidental release scenarios on public and environmental receptors and provide a summary of the facility's five year accident history of accidental releases.
- An accidental release prevention program designed to detect, prevent and minimize accidental releases.
- An emergency response program designed to deal with any accidental release in order to protect both human health and the environment.
- A risk management plan (RMP) which summarizes the facility's risk management program and which must be submitted to a central point that will be designated by EPA. All RMPs will be made available to appropriate State and local agencies and the public.

Description of the Pilot Study Context

Monitoring how well firms implement the Rule may represent difficulties since it is commonly accepted that in the absence of detailed specifications or measurable performance criteria, agency oversight, monitoring and enforcement of compliance is resource intensive. No resources have been explicitly provided in the CAA to the States or the federal government to implement the program. To date, few states have been willing to step forward and accept delegation of the program and the federal government is then faced with the difficult problem of how to implement an effective program. However, compliance can be enhanced under such conditions if information is available to the public at risk.

Under the Rule, EPA assumes responsibility for the task of collecting and making the information contained in the RMP publicly available by electronic access. However, making information and data submitted by regulated firms publicly available does not in itself result in both parties being on an equal footing in regard to risk information.

The Focus of the Proposed ISO 14001 Study

The pilot project will focus on determining whether it is possible to develop an ISO 14001 option that will enhance implementation of the EPA Rule and be acceptable to industry, the public, and the implementing agency. It is expected that the ISO option will be attractive primarily to larger facilities and some moderate-size companies. It includes specific actions and agreements for both the facility and the implementing agency, and incentives/benefits for all three stakeholders: facilities, implementing agencies and local communities.

Regulated firms that wish to use the ISO option in implementing the Rule would agree to take the following actions:

1. Adoption of all Rule requirements as specific objectives with time lines and annual ISO 14001 audit of its performance against these objectives.
2. Registration under ISO 14001.
3. Timely correction of deficiencies noted in annual ISO audit report.
4. Communication of its RMP to the local community before submission to EPA.
5. Agreement to hold open meetings to discuss the audit and surveillance reports.

The implementing agency would agree that if a firm met these conditions it would be entitled to the following considerations:

1. Expedited approval of facility's RMP if no objections have been submitted by potentially affected local communities.
2. ISO facilities would be deemed low priority for RMP audits and inspections.
3. Resources would focus on monitoring performances of ISO registrars/auditors.
4. Actions on agency findings of facility program deficiencies would be limited to requiring RMP compliance provided the facility has been making timely correction of deficiencies noted in its annual ISO audit report.
5. RMP/ISO facilities would be provided with positive public recognition.

The proposal should provide incentives to all three stakeholders. It allows the regulated facility more flexibility in designing a compliance program tailored to its own needs with a minimum of formal implementing agency oversight and involvement, and should result in better relations with the facility local community. It provides agencies with an implementation strategy which allows the available agency resources to be focused on regulated facilities that are more likely to be out of compliance and covers the 'better' facilities through the less resource intensive review of registrars in order to ensure that they have a high degree of competence

and diligence in regard to their reviews of major accident prevention programs. It provides better information and a meaningful opportunity for inputs on the RMPs by the local community in which the regulated facilities are located, and assures the community that this information and compliance with the EPA Rule has been reviewed by an independent party.

Region III and the State of Delaware have indicated an interest in working with EPA/CEPPO in the development and conduct of a pilot project to test the ISO 14001 Option for Implementing EPA's Major Accident Prevention Rule.

New Approved Q & A's

Five to six newly approved Q & A's are featured in each update issue.

Question: The list of regulated toxic substances at 40 CFR Section 68.130 includes both "ammonia (anhydrous)" and "ammonia (conc 20% or greater)," but does not include a specific listing for "ammonium hydroxide." The Chemical Abstract Registry Service (CAS) number for ammonium hydroxide is 1336-21-6, and the CAS number for ammonia is 7664-41-7. Ammonium hydroxide is, however, simply a mixture of ammonia and water. Must a stationary source owner or operator consider the amount of ammonia present in ammonium hydroxide that is contained in a process when determining whether the threshold for ammonia is exceeded?

Answer: Yes. For the purposes of the risk management program regulations at 40 CFR Part 68, ammonium hydroxide must be treated as a solution of ammonia and water, regardless of the fact that ammonium hydroxide may be identified by a unique CAS number. The Agency has made it clear that the listing for "ammonia (conc 20% or greater)" applies to aqueous solutions of ammonia (List Rule Response to Comments document, page 50). If the concentration of ammonia in the ammonium hydroxide is 20% or greater, then the mixture is subject to threshold determination for "ammonia (conc 20% or greater)" under 40 CFR Section 68.115.

(CAA Q&A Database, July 1997)

Question: Under the risk management program regulations at 40 CFR Part 68, sources with Program 2 and Program 3 covered processes are required to develop prevention programs that include personnel training. Will compliance with the training requirements under OSHA's Process Safety Management standard (PSM) satisfy the training requirements under 40 CFR Sections 68.54 and 68.71?

Answer: Yes. The training requirements for Program 3 processes at 40 CFR §68.71 have been adopted verbatim from the OSHA PSM with minor wording changes to address statutory differences (61 FR 31712; June 20, 1996). EPA anticipates that sources whose processes are already in compliance with OSHA PSM will not need to take any additional steps to comply with the Program 3 Prevention program (61 FR 31673; June 20, 1996).

The training requirements for Program 2 processes at 40 CFR Section 68.54 is a streamlined version of the OSHA PSM training requirements. The primary difference is that the OSHA documentation requirements have been omitted from the Program 2 training requirements (61 FR 31711; June 20, 1996). Additionally, training conducted to comply with other Federal or state rules or industry-specific standards or codes may be used to demonstrate compliance with the Program 2 training requirements (40 CFR Section 68.54(c)).
(CAA Q&A Database, July 1997)

Question: A stationary source has a mixture above the threshold. At standard temperature and pressure, the mixture does not meet the criteria for a National Fire Protection Association flammability rating of 4 (NFPA 4). At elevated temperatures and pressures, however, the mixture meets the NFPA 4 criteria. Is this process covered under the risk management program regulations?

Answer: No. The determination of whether a substance or mixture meets the NFPA 4 hazard rating is made in accordance with the definition of flammability hazard rating 4 in the NFPA 704, Standard System for the Identification of the Fire Hazards of Materials, and boiling point and flash point shall be defined and determined in accordance with NFPA 321, Standard on the Basic Classification of Flammable and Combustible Liquids. Standard (or ambient) temperatures and pressures are referenced in these standards. Although this mixture as described is not subject to part 68, it is subject to Section 112(r)(1), the general duty clause (See questions under General Duty Clause).
(CAA Q&A Database, July 1997)

Question: Are the risk management program requirements under 40 CFR Part 68 applicable

to federal facilities?

Answer: Yes. The requirements at 40 CFR Part 68 are applicable to an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process (40 CFR §68.10(a)). The definition of stationary source includes buildings, structures, equipment, installations, or substance emitting stationary activities which, belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person, and from which an accidental release may occur (40 CFR 68.3). The Clean Air Act Section 302(e) defines "person" as an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof. (CAA Q&A Database, July 1997 **revised from August 1996 Q&A)

Question: The list of regulated substances under the chemical accident prevention provisions of 40 CFR Part 68 contains 77 toxic substances and 63 flammable substances. How did EPA select the substances to be included in this list?

Answer: The chemical accident prevention provisions promulgated pursuant to Section 112(r) of the Clean Air Act (CAA) are designed to focus on chemicals that pose a significant hazard to the community in the event of an accidental release, and to prevent and minimize the consequences of such releases (59 FR 4479; January 31, 1994). EPA was required by CAA Section 112(r)(3) to promulgate an initial list of at least 100 regulated substances that are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment if accidentally released. Congress required the inclusion of sixteen specific toxic substances on the initial list: chlorine, ammonia, anhydrous ammonia, methyl chloride, ethylene oxide, vinyl chloride, methyl isocyanate, hydrogen cyanide, hydrogen sulfide, toluene diisocyanate, phosgene, bromine, anhydrous hydrogen chloride, hydrogen fluoride, anhydrous sulfur dioxide, and sulfur trioxide (CAA Section 112(r)(3)). Additional toxic substances were included on the list based on toxicity, physical state, vapor pressure, production volume, and accident history. Commercially produced

flammable gases and volatile flammable liquids were listed on the basis of flash point and boiling point criteria used by the National Fire Protection Association for its highest flammability hazard ranking (59 FR 4480; January 31, 1994). For a complete description of the methodology and criteria used to select the substances, refer to the final rule (59 FR 4479; January 31, 1994), and proposed modifications (61 FR 16598, April 15, 1996).
(CAA Q&A Database, July 1997)

Question: What is the definition of "process"?

Answer: Process, as defined at 40 CFR §68.3, means any activity involving a regulated substance, including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. Any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, is considered a single process. The owner or operator of the stationary source must make a reasonable determination as to whether two or more vessels may be involved in the same accident, or whether a release from one vessel may be anticipated to lead to a release from another. The owner/operator should document his decision as to whether the individual vessels do or do not constitute a single process.

(CAA Q&A Database, January 1997)