

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 68**

[FRL-6348-2]

**Accidental Release Prevention Requirements: Risk Management Programs Under Clean Air Act Section 112(r)(7); Amendments to the Worst-Case Release Scenario Analysis for Flammable Substances****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Direct final rule.

**SUMMARY:** This direct final action amends the Chemical Accident Prevention Provisions, also known as the Risk Management Program (RMP) regulations, codified in 40 CFR part 68. The revisions concern the worst-case release scenario analysis for regulated flammable substances in 40 CFR 68.25. EPA is issuing these revisions so that the regulated community can treat regulated flammable substances in the same manner as regulated toxic substances for determining the quantity released when conducting a worst-case release scenario analysis. EPA is taking this direct final action pursuant to a settlement agreement with the American Petroleum Institute (API).

EPA is also clarifying its interpretation of Clean Air Act sections 112(l) and 112(r)(11), as they relate to Department of Transportation (DOT) requirements under the Federal Hazardous Materials Transportation Law under a settlement agreement with the Chlorine Institute (CI).

**DATES:** This rule is effective on June 21, 1999 without further notice, unless EPA receives adverse comment by June 16, 1999 or, pursuant to CAA section 113(g), declines to finalize the settlement agreement. If we receive such comment, or decide to withdraw from the settlement agreement, we will publish a timely withdrawal in the **Federal Register** informing the public that this rule will not take effect.

**ADDRESSES:** Docket and Comments. Docket No. A-99-15, containing supporting information used to develop these amendments, is available for public inspection and copying from 8:00 a.m. to 5:30 p.m., Monday through Friday (except government holidays) from EPA's Air Docket, at Waterside Mall, Room M1500, 401 M Street, SW, Washington, D.C., 20460, telephone 202-260-7548. Written comments should be submitted to the same address. A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Sicy Jacob or John Ferris, Chemical Emergency Preparedness and Prevention Office, Environmental Protection Agency (5104), 401 M Street SW, Washington, D.C., 20460, (202) 260-7249 or (202) 260-4043, respectively; or the Emergency Planning and Community Right-to-Know Hotline at 800-424-9346 (in the Washington, DC metropolitan area, (703) 412-9810). You may wish to visit the Chemical Emergency Preparedness and Prevention Office (CEPPO) Internet site, at [www.epa.gov/ceppo](http://www.epa.gov/ceppo).

**SUPPLEMENTARY INFORMATION:****Regulated Entities**

Entities potentially regulated by this action are those stationary sources that have more than a threshold quantity of a regulated substance in a process. Regulated categories and entities include:

| Category                | Example of regulated entities           |
|-------------------------|---|
| Petrochemical .....     | Refineries, Plastics, Resins, Organics. |
| Chemical Manufacturing. |   |

This table is not meant to be exhaustive, but rather provides a guide for readers to indicate some of those entities likely to be regulated by this action. The table lists entities EPA is aware of that could potentially be regulated by this action. Other entities not listed in the table could also be regulated. To determine whether a stationary source is regulated by this action, carefully examine the provisions associated with the list of substances and thresholds under § 68.130 and the applicability criteria under § 68.10. If you have questions regarding applicability of this action to a particular entity, consult the hotline or persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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**I. Introduction and Background****A. Statutory Authority**

These amendments are being promulgated under sections 112(r) and 301(a)(1) of the Clean Air Act (CAA) as amended (42 U.S.C. 7412(r), 7601(a)(1)).

**B. Background**

The 1990 CAA Amendments added section 112(r) to provide for the prevention and mitigation of accidental chemical releases. Section 112(r) mandates that EPA promulgate a list of "regulated substances," with "threshold quantities". Processes at stationary sources that contain a threshold quantity of a regulated substance are subject to accidental release prevention regulations promulgated under CAA section 112(r)(7). EPA promulgated the list of regulated substances on January 31, 1994 (59 FR 4478) (the "List Rule") and the accidental release prevention regulations creating the risk management program requirements on June 20, 1996 (61 FR 31668) (the "RMP Rule"). Together, these two rules are codified at 40 CFR part 68. EPA has since revised the rules in several respects, and these revisions are reflected in the most recent codification of 40 CFR part 68.

Part 68 requires that any source with more than a threshold quantity of a regulated substance in a process develop and implement a risk management program that includes a five-year accident history, offsite consequence analyses, a prevention program, and an emergency response program. In part 68, processes are divided into three categories (Programs 1 through 3). Processes that likely have no potential impact on the public in the case of accidental releases have minimal requirements (Program 1). Processes in Programs 2 and 3 have additional requirements based on their potential for offsite consequences as indicated by worst-case accidental release analysis and their accident history. Program 3 is also triggered if the processes are subject to OSHA's Process Safety Management (PSM) Standard. By June 21, 1999, any source with more than a threshold quantity of a regulated substance in a process must submit to EPA a risk management plan (RMP) that summarizes their implementation of the risk management program.

**C. RMP Rule Litigation**

The American Petroleum Institute (API) and the Chlorine Institute (CI) filed petitions for judicial review of the

RMP Rule (The Chlorine Institute v. EPA, No. 94-1279 (D.C. Cir.) and consolidated cases (Nos. 96-1284, 96-1288, 96-1289 & 96-1290)). In court filings, API raised issues related to worst-case release scenario analysis (§ 68.25 of the rule) for flammables.

In the final RMP rule issued on June 20, 1996, § 68.25(e) states that when conducting a worst-case scenario analysis for flammables, the owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of § 68.25, vaporizes, resulting in a vapor cloud explosion. This approach applies to all listed flammable substances regardless of whether the flammable substance is normally a liquid or liquefied by refrigeration. API suggested that flammable liquids and those liquefied by refrigeration should be treated, for modeling purposes, in the same manner as for toxic liquids or those liquefied by refrigeration, as stated in § 68.25 (c) and (d). EPA agreed that flammable liquids (including those liquefied by refrigeration) could be appropriately treated in that manner. Accordingly, EPA and API signed a proposed settlement agreement in May 1999. This settlement agreement is awaiting finalization pursuant to section 113(g) of the CAA.

CI's primary litigation concern related to CAA sections 112(l) and 112(r)(11), as they relate to Department of Transportation (DOT) requirements under the Federal Hazardous Materials Transportation Law ("Federal Hazmat Law"). EPA and CI reached an agreement on this issue and signed a proposed settlement agreement in May 1999. This settlement agreement is awaiting finalization pursuant to section 113(g) of the CAA.

## II. Discussion of Revisions to § 68.25

40 CFR 68.25 requires each stationary source subject to the RMP rule to analyze at least one worst-case release scenario for regulated flammables and at least one for regulated toxic substances that are present in a process at the stationary source above the threshold quantity. A worst-case release means the release of the largest quantity of a regulated substance from a vessel or process line failure that results in the greatest distance to an endpoint defined in § 68.22(a).

In the final rule promulgated on June 20, 1996, EPA established a framework for the worst-case scenario analysis that considers the physical state of the substance and the way in which it is stored or handled (see 40 CFR 68.25):

(1) For toxic gases and gases liquefied by pressure, the worst-case release

scenario assumes that the largest quantity is released in 10 minutes and the rate of release to the air is the quantity divided by 10 minutes. Upon loss of containment (e.g. a catastrophic vessel failure), a gaseous substance will be completely released to the air within 10 minutes. Although gases liquefied by pressure will behave initially like a liquid, they will rapidly become gases upon catastrophic release because of the sudden release of pressure and because the storage temperature of the liquid is often much higher than the boiling point of the substance. The rate of flashing and volatilization is generally great enough to vaporize the entire quantity within 10 minutes.

(2) For toxic liquids, the worst-case scenario assumes an instantaneous spill; the release rate to the air is the volatilization rate from a pool that spreads out to a 1 centimeter (cm) depth unless passive mitigation (e.g., a diked area) contains the substance in a smaller area. The rate of volatilization to the air depends on the surface area of the liquid pool and it may be adjusted to account for the smaller surface in a contained area.

(3) For toxic substances liquefied by refrigeration, the scenario assumes an instantaneous liquid spill followed by volatilization of the pool at the substance's boiling point but only if the spilled liquid is contained by passive mitigation at a liquid depth greater than 1 cm. If passive mitigation is not present or is of such large capacity that the refrigerated liquid spill can spread out to a depth of 1 cm, then the quantity of refrigerated liquid is assumed to completely volatilize within 10 minutes. Gases liquefied by refrigeration need time to vaporize and become a gas because the storage temperature of the liquid is less than its boiling point. Therefore, the rate of release to the air is less than the total quantity released in 10 minutes. The liquid must be contained by passive mitigation at a depth greater than 1 cm; otherwise, the rate of warming and volatilization is great enough to completely vaporize the spill within 10 minutes.

For all listed flammables however, the worst case assumes that the quantity in the largest vessel or pipeline vaporizes to form a vapor cloud, followed by a vapor cloud explosion. No consideration was given for liquids or substances liquefied by refrigeration, primarily because EPA assumed that passive mitigation or containment was typically not used under flammable storage due to fire safety reasons. The American Petroleum Institute (API) argued that, in many cases, spilled flammable liquids are, in fact contained,

but in a way that prevents a liquid fire from impacting storage vessels and prevents release to the environment. Such containment serves to reduce the quantity available for a vapor cloud explosion in the same way that liquid toxics generate a smaller toxic vapor cloud than gases. If the flammable worst-case scenario were revised to account for liquids in the same way as toxics, then the flammable worst-case scenario could distinguish flammable gases from liquids to avoid generating a technically incorrect and overly conservative result.

EPA agrees that the worst-case assessment for flammable liquids and flammables liquefied by refrigeration is not consistent with the approach for toxic liquids or toxics liquefied by refrigeration. EPA is thus taking direct final action to revise § 68.25(e) so that flammables may be treated in a manner consistent with the treatment of toxics.

Specifically, EPA is making the following changes to § 68.25 for flammables: (1) For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under § 68.25(b), is released as a gas over 10 minutes. The total quantity shall be assumed to be involved in the vapor cloud explosion. (2) For regulated flammable substances that are normally liquids at ambient temperature, the owner or operator shall assume that the entire quantity in the vessel or pipe, as determined under § 68.25(b), is spilled instantaneously to form a liquid pool. For liquids at temperatures below their atmospheric boiling point, the volatilization rate shall be calculated at the conditions specified in § 68.25(d). The owner or operator shall assume that the quantity which becomes vapor in the first 10 minutes is reported as the quantity released. (3) For flammable gases handled as refrigerated liquids at ambient pressure, the owner or operator may assume that the total quantity of the substance determined in § 68.25(b) instantaneously spills followed by volatilization of the liquid pool at the substance's boiling point and under the conditions specified in § 68.25(d), provided the spilled liquid would be contained by passive mitigation at a liquid depth greater than 1 cm. The quantity of substance that becomes vapor in the first 10 minutes is involved in the vapor cloud explosion. If passive mitigation is not present or is of such large capacity that the refrigerated liquid spill can spread out to a depth of 1 cm, then the quantity of refrigerated

liquid is assumed to completely volatilize within 10 minutes and the total quantity is involved in the vapor cloud explosion.

This modification allows stationary sources to account for volatilization of the liquid pool if flammables are liquefied by refrigeration; however, sources are not required to use this added assumption. Sources can still use the quantity determined under § 68.25(b) as the quantity released. Sources that have already submitted their RMP may choose to use this revised approach, but are not required to do so. Sources that choose to use this revised approach, must revise and re-submit their RMP to EPA by June 21, 1999.

EPA will not be modifying RMP\*Submit™ (the computer database used to report the RMPs) as a result of this rule at this time. Instead, stationary sources reporting for flammables liquefied by refrigeration would need to calculate the total quantity of the gas generated (taking the volatilization rate into account) from the pool in a 10-minute period. This value would be reported as "Quantity released" in section 4.4 of RMP\*Submit™. The passive mitigation (dikes, berms, etc.) considered would be specified at "Other" in section 4.10. EPA also suggests that stationary sources utilize the Executive Summary section of RMP\*Submit™ to explain how they calculated the quantity released for the refrigerated flammable substances.

Section 68.25(e) will be revised by adding (i) and (ii) and adding a new (f); existing (f), (g), and (h) will become (g), (h), and (i).

EPA is publishing this rule without prior proposal because we view this as consistent with the original rule as promulgated and as a noncontroversial amendment. No adverse comment is anticipated. The sole regulatory change contemplated under the settlement agreement represents a narrow technical amendment designed to make the treatment of flammables consistent with that of toxics. This amendment merely adjusts the way in which releases of these substances are modeled and does not alter the number of sources subject to RMP or the basic obligations under the RMP. In light of the foregoing and the need to promulgate the revision prior to the rule's June 21, 1999 compliance date, the Agency believes a direct final rule is the most appropriate vehicle for implementation of the settlement agreement.

In the "Proposed Rules" section of today's **Federal Register** publication, we are publishing a separate document that will serve as the proposal to revise

§ 68.25 for flammables if adverse comments are filed. This rule will be effective on June 21, 1999, without further notice unless we receive adverse comment by June 16, 1999. If EPA receives adverse comment, we will publish a timely withdrawal in the **Federal Register** informing the public that the rule will not take effect. We will address all public comments in a subsequent final rule based on the proposed rule. We will not institute a second comment period on this action. Any parties interested in commenting must do so at this time.

### III. Clarification of CAA Sections 112(l) and 112(r)(11)

Pursuant to the settlement agreement with CI, EPA is clarifying its interpretation of CAA sections 112(l) and 112(r)(11), as they relate to DOT requirements under the Federal Hazardous Materials Transportation Law, 49 U.S.C. 5101–5127.

In our amendments to 40 CFR part 68 (63 FR 640, January 6, 1998) we dealt with the issue of the relationship between part 68 and statutes administered by and regulations promulgated by the Department of Transportation (DOT), such as the Federal Hazardous Materials Transportation Law ("Federal Hazmat Law") and the Hazardous Materials Regulations ("HMR"). We noted therein that: "EPA's regulations do not supersede or limit DOT's authorities and, therefore, are in compliance with CAA section 310."

The definition of stationary source finalized in that rule generally provides that containers that are in transportation or storage incident to transportation are not part of a stationary source or a process at the stationary source. On the other hand, the definition of stationary source does provide that such containers are part of a stationary source under certain circumstances, most notably when they are being loaded, unloaded or on site for storage not incidental to transportation. Because a transportation container may at times function as a storage container or a process at a stationary source, or may function as part of operations at a stationary source, EPA is specifically directed by statute to address these activities (CAA section 112(r)(7)(B)(i)) ("The regulations shall cover storage, as well as operations"). To the extent that DOT is also authorized under the Federal Hazmat Law to regulate activities that are at a stationary source, nothing in the CAA prohibits both agencies from exercising concurrent jurisdiction over these activities. As EPA has said in the context of the RMP

Rule, compliance with Federal Hazmat Law and HMR requirements may satisfy parallel requirements of part 68. This approach to implementation reflects the coordination between the agencies that is called for under CAA section 112(r)(7)(D). The exercise of concurrent jurisdiction preserves the applicability of the Federal Hazmat Law and HMR and does not supersede or limit DOT's jurisdiction. CAA section 310 provides that the CAA shall not be construed as superseding or limiting the authority or responsibilities of any Federal agency. Thus, neither CAA section 112(r)(11) (which provides that section 112(r) does not preempt state regulations that are more stringent than EPA's) nor section 112(l) (which allows EPA to delegate the accident prevention regulations to a state if the state's program is no less stringent than EPA's) can be read to authorize a state to regulate in a manner that would otherwise be preempted under the Federal Hazmat Law. A state that, for purposes of obtaining delegation under section 112(l), adopts Part 68 or a program that is substantively the same as Part 68 will not be considered by EPA to regulate in a manner that would otherwise be preempted under the Federal Hazmat Law.

### IV. Judicial Review

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of this notice, unless EPA withdraws this rule as described earlier in this notice. Under section 307(b)(2) of CAA, the requirements that are the subject of today's document may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

### V. Administrative Requirements

#### A. Docket

The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, because it allows members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated rules and their preambles, the contents of the docket serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.)

The official record for this rulemaking, as well as the public version, has been established for this

rulemaking under Docket No. A-99-15, and is available for inspection from 8:00 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. The official rulemaking record is located at the address in **ADDRESSES** at the beginning of this document.

#### *B. Executive Order 12866*

Under Executive Order 12866, (58 Federal Register 51,735 (October 4, 1993)) the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order.

The Order defines "significant regulatory action" as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order."

It has been determined that today's action is not a "significant regulatory action" under the terms of E.O. 12866 and is, therefore, not subject to OMB review.

#### *C. Executive Order 12875*

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments.

If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, any written communications from the governments, and a statement supporting the need to issue the regulation.

In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments "to provide

meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates."

Today's rule does not create a mandate on State, local or tribal governments. This rule change does not impose any enforceable duties on these entities. Instead, it merely provides an alternative approach for calculating the quantity released in the worst-case scenario. Stationary sources already subject to the rule may use this approach for conducting worst-case release scenarios for flammable substances in the same manner as toxic substances. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

#### *D. Executive Order 13045*

Executive Order 13045: "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant" as defined under E.O. 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This action is not subject to the E.O. 13045 because it is not "economically significant" as defined in E.O. 12866, and because it does not involve decisions based on environmental health or safety risks.

#### *E. Executive Order 13084*

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments.

If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a

statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

Today's rule does not significantly or uniquely affect the communities of Indian tribal governments. This rule change merely provides an alternative approach for calculating the quantity released in the worst-case scenario. Stationary sources already subject to the rule may use this approach for conducting worst-case release scenarios for flammable substances in the same manner as toxic substances. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

#### *F. Regulatory Flexibility*

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this direct final rule and that this rule will not have a significant negative economic impact on small entities. This rule change does not require any stationary source to report additional elements in the risk management plan. It merely provides an alternative approach for stationary sources already subject to the rule to use for conducting worst-case release scenarios for flammable substances.

#### *G. Paperwork Reduction*

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2050-0144.

This rule does not include any new information collection requirements for OMB review under the provisions of the Paperwork Reduction Act. This revision of the rule does not impose any new reporting, recordkeeping, or third party reporting requirements on stationary sources, it merely provides an alternative approach for sources to calculate the quantity released in the worst-case scenario for flammables. The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2050-0144.

Burden means the total time, effort, or financial resources expended by persons

to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR Chapter 15. EPA is amending the table in 40 CFR part 9 of currently approved ICR control numbers issued by OMB for various regulations to list the information requirements contained in this final rule.

#### H. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed

under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Today's action is not subject to the requirements of sections 202 and 205 of the Unfunded Mandates Act.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for state, local, or tribal governments or the private sector. This rule change does not require any stationary sources to report additional elements in the risk management plan. It merely provides an alternative approach for stationary sources already subject to the rule to use for conducting worst-case release scenarios for flammable substances.

In addition, for the same reasons, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

#### I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, section 12(d) (15 U.S.C. 272 note), directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA requires EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

#### J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et. seq., as added by the Small Business Regulatory Enforcement

Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective on June 21, 1999.

#### List of Subjects in 40 CFR Part 68

Environmental protection, Chemicals, Chemical accident prevention.

Dated: May 17, 1999.

**Carol M. Browner,**  
Administrator.

For the reasons set out in the preamble, title 40, chapter I, subchapter C, part 68 of the Code of Federal Regulations is amended to read as follows:

#### PART 68—CHEMICAL ACCIDENT PREVENTION PROVISIONS

1. The authority citation for Part 68 continues to read as follows:

**Authority:** 42 U.S.C. 7412(r), 7601(a)(1), 7661-7661f.

#### Subpart B—Hazard Assessment

2. Section 68.25 is amended by redesignating paragraphs (f), (g), and (h) as (g), (h), and (i), and by revising paragraph (e) and adding a new paragraph (f) to read as follows:

##### § 68.25 Worst-case release scenario analysis.

\* \* \* \* \*

(e) *Worst-case release scenario—flammable gases.* The owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of this section and the provisions below, vaporizes resulting in a vapor cloud explosion. A yield factor of 10 percent of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT equivalent methods.

(1) For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is released as a gas over 10 minutes. The total quantity shall be

assumed to be involved in the vapor cloud explosion.

(2) For flammable gases handled as refrigerated liquids at ambient pressure:

(i) If the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of one centimeter or less, the owner or operator shall assume that the total quantity of the substance is released as a gas in 10 minutes, and the total quantity will be involved in the vapor cloud explosion.

(ii) If the released substance is contained by passive mitigation systems in a pool with a depth greater than 1 centimeter, the owner or operator may assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool.

The volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in paragraph (d) of this section. The owner or operator shall assume that the quantity which becomes vapor in the first 10 minutes is involved in the vapor cloud explosion.

(f) *Worst-case release scenario—flammable liquids.* The owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of this section and the provisions below, vaporizes resulting in a vapor cloud explosion. A yield factor of 10 percent of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT equivalent methods.

(1) For regulated flammable substances that are normally liquids at ambient temperature, the owner or operator shall assume that the entire quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool. For liquids at temperatures below their atmospheric boiling point, the volatilization rate shall be calculated at the conditions specified in paragraph (d) of this section.

(2) The owner or operator shall assume that the quantity which becomes vapor in the first 10 minutes is involved in the vapor cloud explosion.

\* \* \* \* \*

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