

government entities with jurisdiction over populations of less than 50,000.

The SIP approvals under section 110 and subchapter I, part D, of the Act do not create any new requirements, but simply approve requirements that the State is already imposing. Therefore, because the Federal SIP approval does not impose any new requirements, I certify that it does not have a significant impact on small entities. Moreover, due to the nature of the Federal-State relationship under the Act, preparation of a regulatory flexibility analysis would constitute Federal inquiry into the economic reasonableness of State action. The Act forbids the USEPA to base its actions concerning SIPs on such grounds. *Union Electric Co. v. U.S. E.P.A.*, 427 U.S. 246, 256-66 (1976).

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by August 29, 1995. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purpose of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements.

Dated: May 31, 1995.

David A. Ullrich,

Acting Regional Administrator.

40 CFR part 52, is amended as follows:

Subpart YY—Wisconsin

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

2. Section 52.2570 is amended by adding paragraph (c)(81) to read as follows:

§ 52.2570 Identification of Plan.

* * * * *

(c) * * *

(81) A revision to the ozone State Implementation Plan (SIP) was submitted by the Wisconsin Department of Natural Resources on June 30, 1994,

and supplemented on July 15, 1994. This revision consists of volatile organic compound regulations which establish reasonably available control technology for yeast manufacturing, molded wood parts or products coating, and wood door finishing.

(i) Incorporation by reference. The following sections of the Wisconsin Administrative Code are incorporated by reference.

(A) NR 422.02(7), (34) as amended and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994. NR 422.02(12e), (18m), (24s), (27m), (33d), (34m), (46m), and (51) as created and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(B) NR 422.03(intro.) as amended and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994. NR 422.03 (8) and (9) as created and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(C) NR 422.04(1)(a) as amended and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(D) NR 422.132 as created and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(E) NR 422.135 as created and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(F) NR 424.02 (3), (4), (5), (6), and (7) as created and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994.

(G) NR 424.05 as created and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994.

(H) NR 439.04(5)(a)(intro.) as amended and published in the (Wisconsin) Register, August, 1994, No. 464, effective September 1, 1994.

(I) NR 439.075(2)(a)4. as amended and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994.

(J) NR 439.09(7m) as created and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994. NR 439.09(9)(b) as amended and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994.

(K) NR 439.095 (1)(e) and (5)(e) as created and published in the (Wisconsin) Register, June, 1994, No. 462, effective July 1, 1994.

(L) NR 484.05(9) as renumbered from NR 484.05(2), amended and published in the (Wisconsin) Register, August,

1994, No. 464, effective September 1, 1994.

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40 CFR Part 372

[OPPTS-400032B; FRL-4962-4]

RIN 2070-AC00

Ammonia; Ammonium Sulfate (solution); Ammonium Nitrate (solution); Water Dissociable Ammonium Salts; Toxic Chemical Release Reporting; Community Right-to-Know

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is taking the following four actions in response to a petition to delete ammonium sulfate (solution) from the list of toxic chemicals subject to reporting under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA): (1) Deleting ammonium sulfate (solution) from the EPCRA section 313 list of toxic chemicals; (2) requiring that threshold and release determinations for aqueous ammonia be limited to 10 percent of the total ammonia present in aqueous ammonia solutions; (3) modifying the ammonia listing by adding a qualifier; and (4) deleting ammonium nitrate (solution) as a separately listed chemical on the EPCRA section 313 list of toxic chemicals. EPA has concluded that the aqueous ammonia present in ammonium sulfate (solution) is more appropriately reported under the EPCRA section 313 ammonia listing, and that reporting 10 percent total aqueous ammonia under the ammonia listing is appropriate and provides sufficient information for the public to assess the impacts of releases of aqueous ammonia. EPA has also concluded that releases of ammonium nitrate (solution) are more appropriately reported under the EPCRA section 313 listings for ammonia and the water dissociable nitrate compounds category.

EFFECTIVE DATES: All provisions of this rule are final June 30, 1995. For effective dates on the reporting requirements, see Unit IV. of this preamble.

FOR FURTHER INFORMATION CONTACT: Maria J. Doa, Petitions Coordinator, 202-260-9592, e-mail: doa.maria@epamail.epa.gov, for specific information on this final rule, or for more information on EPCRA section 313, the Emergency Planning and Community Right-to-Know Hotline,

Environmental Protection Agency, Mail Code 5101, 401 M St., SW., Washington, DC 20460, Toll free: 1-800-535-0202, in Virginia and Alaska: 703-412-9877 or Toll free TDD: 1-800-553-7672.

SUPPLEMENTARY INFORMATION:

I. Introduction

A. Statutory Authority

This action is promulgated under sections 313(d) and (e)(1) and 328 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), 42 U.S.C. 11023. EPCRA is also referred to as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99-499).

B. Background

Section 313 of EPCRA requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report their environmental releases of such chemicals annually. Beginning with the 1991 reporting year, such facilities must also report pollution prevention and recycling data for such chemicals, pursuant to section 6607 of the Pollution Prevention Act (42 U.S.C. 13106). When enacted, section 313 established an initial list of toxic chemicals that was comprised of more than 300 chemicals and 20 chemical categories. Section 313(d) authorizes EPA to add chemicals to or delete chemicals from the list, and sets forth criteria for these actions. EPA has added chemicals to and deleted chemicals from the original statutory list. Under section 313(e)(1), any person may petition EPA to add chemicals to or delete chemicals from the list. Pursuant to EPCRA section 313(e)(1), EPA must respond to petitions within 180 days either by initiating a rulemaking or by publishing an explanation of why the petition is denied.

EPA issued a statement of petition policy and guidance in the **Federal Register** of February 4, 1987 (52 FR 3479), to provide guidance regarding the recommended content and format for petitions. On May 23, 1991 (56 FR 23703), EPA issued a statement of policy and guidance regarding the recommended content of petitions to delete individual members of the section 313 metal compound categories. EPA has published a statement clarifying its interpretation of the section 313(d)(2) and (d)(3) criteria for adding and deleting chemicals from the section 313 list (59 FR 61439, November 30, 1994).

Facilities that manufacture, process, or otherwise use ammonia, ammonium sulfate (solution), ammonium nitrate (solution), and other water dissociable

ammonium salts may be affected by this final rule if they meet the following criteria: (1) The facility has the equivalent of 10 or more full-time employees; and (2) the facility is included in Standard Industrial Classification (SIC) Codes 20 through 39; and (3) the facility manufactures (defined to include importing), processes, or otherwise uses the chemicals listed above in quantities equal to or greater than the threshold quantities set under EPCRA section 313(f).

II. Description of Petition and Proposed Actions

A. Description of Petition

On January 23, 1989, EPA received a petition from Allied-Signal Inc. to delete ammonium sulfate (solution) from the EPCRA section 313 list of toxic chemicals (EPA also received letters in support of this petition from W. R. Grace Company and ITT Rayonier Inc.). The petition was based on Allied-Signal Inc.'s contention that ammonium sulfate (solution) does not meet the EPCRA section 313 criteria for listing. Specifically, Allied-Signal Inc. claimed that: (1) Ammonium sulfate is not known to cause and cannot reasonably be anticipated to cause significant adverse acute human health effects at concentration levels that are reasonably likely to exist beyond facility site boundaries as a result of continuous, or frequently recurring releases, (2) ammonium sulfate does not show potential for causing in humans cancer or teratogenic effects, serious or irreversible reproductive dysfunction, neurological disorders, heritable genetic mutations, or other chronic health effects, and (3) ammonium sulfate does not show potential for adverse effects on the environment due to toxicity, persistency in the environment, and/or tendency to bioaccumulate in the environment.

B. Summary of Proposed Actions

Following a review of the petition, EPA issued a proposed rule in the **Federal Register** of March 30, 1990 (55 FR 12144), proposing to delete ammonium sulfate (solution) from the EPCRA section 313 list of toxic chemicals. This proposal, hereafter referred to as "the original proposal," was based on EPA's belief that the only concerns identified for ammonium sulfate (solution) were for the aqueous ammonia present in the solution and that this aqueous ammonia is more appropriately reported under the EPCRA section 313 listing for ammonia. EPA stated that aqueous ammonia is

manufactured when ammonium salts that dissociate in water (such as ammonium sulfate) are dissolved in water. EPA stated that therefore, releases of these ammonium salt solutions are environmentally equivalent to the release of aqueous ammonia generated by dissolving anhydrous ammonia in water.

In the original proposal, EPA preliminarily concluded that although there are no known significant human health effects associated with ammonium sulfate (solution), there are ecotoxic effects of concern. EPA further preliminarily concluded that the ecotoxicity concerns for ammonium sulfate (solution) were limited to the aqueous ammonia (i.e., total ammonia) present in these solutions and that the sulfate portion was not of concern. EPA stated that the toxicity of aqueous ammonia to aquatic organisms has been extensively studied and is well understood and that the un-ionized form of ammonia is relatively more toxic than the ionized form of ammonia. EPA stated that because the toxicity of aqueous ammonia solutions is dependent on the pH and temperature of the solution, the toxicity of aqueous ammonia is not dependent solely on the amount of the un-ionized form present. For this reason, aqueous ammonia toxicity cannot be represented solely by the concentration of the un-ionized form of ammonia. Thus, EPA preliminarily concluded that the toxicity of an aqueous solution of ammonia cannot be represented by a single value but must be expressed as a function of pH and temperature. Because the un-ionized ammonia concentration changes with pH and temperature, and the toxicity is not due solely to the un-ionized form, EPA reasoned that it is necessary to calculate the total ammonia concentration in order to determine the toxicity of the solution as the pH and temperature conditions change.

In the original proposal EPA also discussed how to address the fact that certain facilities might not be aware of the chemistry of aqueous solutions of ammonium salts. As a result, facilities that manufacture, process, or otherwise use aqueous solutions of ammonium salts that dissociate in water might not understand that they should make threshold determinations under EPCRA section 313 to assess whether reporting for releases under the ammonia listing is required. Therefore, EPA discussed options concerning how to inform the regulated community of the need to include these solutions in their calculations. EPA preliminarily concluded that technical guidance should be issued clarifying the reporting

requirements under the ammonia listing. In the same issue of the **Federal Register** in which the original proposal was published, a notice of availability was published (55 FR 12148, March 30, 1990) notifying the public and the regulated community of the availability of a guidance document on the reporting of ammonia releases.

In the original proposal, EPA also discussed two options for reporting releases of aqueous ammonia:

(1) Report releases of total ammonia;

or

(2) Report a proportion of the releases of total ammonia.

In discussing the two options, EPA stated that reporting total ammonia would allow communities to determine the proportion of un-ionized ammonia and ionized ammonia present in the receiving stream based on the pH and temperature characteristics of the stream. This information would allow communities to easily determine the un-ionized ammonia and ionized ammonia loading resulting from facility releases of aqueous ammonia. EPA stated that although the ionized form of ammonia is less toxic to aquatic organisms than the un-ionized form of ammonia, it is present in a higher proportion under most environmental conditions and may present the greater hazard. EPA also stated that reporting releases as a proportion of the amount of un-ionized ammonia released would result in data that cannot be used as well since it must be extrapolated to determine the amount of total ammonia released.

EPA proposed the second option in recognition of the fact that the un-ionized form of ammonia is relatively more toxic than the ionized form of ammonia and that under environmental conditions only a proportion of total ammonia is in the un-ionized form. EPA requested comment on whether a proportion, which would be the same for all facilities, of releases of total ammonia should be reported. EPA suggested that this proportion could be a worst-case estimate of the proportion of the un-ionized form of ammonia present in processing waters reflecting an upper bound level of the amount of the un-ionized form of ammonia formed. EPA also requested comment on what proportion of total ammonia should be used as an estimate.

In response to comments received on the original proposal and issues raised in subsequent discussions with the regulated community, EPA issued an amended proposed rule (60 FR 16830, April 3, 1995), hereafter referred to as "the amended proposal." The issue of what forms of ammonia should be reportable under the ammonia listing

had been the source of ongoing discussions between EPA and affected parties since publication of the original proposal. This resulted in a significant amount of additional information becoming available to EPA, and was one of the reasons EPA amended the proposed rule. This information covered five main areas: (1) Data concerning the pH and temperature of lakes, rivers, and streams in the U.S.; (2) additional data concerning the toxicity of aqueous ammonia to one aquatic organism; (3) data on the environmental fate of aqueous ammonia; (4) additional exposure analysis of releases of aqueous ammonia; and (5) a review of the scientific issues concerning the reporting of aqueous ammonia under EPCRA section 313 by the Agency's Science Advisory Board (SAB).

Also, due to the recent addition of a water dissociable nitrate compounds category to the EPCRA section 313 list of toxic chemicals (59 FR 61439, November 30, 1994), EPA expanded the proposed rule to include the deletion of ammonium nitrate (solution) as a separately listed chemical under EPCRA section 313. Therefore, EPA decided to publish the amended proposal to allow for adequate public notice and comment on the ammonium nitrate (solution) issue.

In the amended proposal, EPA reaffirmed its preliminary conclusion that ammonium sulfate (solution) should be deleted from the EPCRA section 313 list of toxic chemicals. EPA proposed to take four specific actions and asked for public comment on these proposed actions. The four proposed actions are the same as those being promulgated in this rule and are discussed below in Unit III. of this preamble. The amended proposal contained a detailed rationale for each of these actions that will not be repeated here. Unit III.B. of this preamble contains additional discussion of the rationales and conclusions concerning these actions.

The original proposal, the amended proposal, and the combined docket for these two proposals and this final rule contain complete discussions and documentation of EPA's technical review of ammonium sulfate (solution), aqueous ammonia, ammonium nitrate (solution), and the options EPA has considered for resolving the reporting requirements under the ammonia listing.

III. Final Rule and Rationale for Actions

In response to the petition from Allied-Signal Inc., EPA is taking the following four actions under EPCRA

section 313: (1) Deleting ammonium sulfate (solution) from the EPCRA section 313 list of toxic chemicals; (2) requiring that threshold and release determinations for aqueous ammonia be based on 10 percent of the total ammonia present in aqueous solutions of ammonia; (3) modifying the ammonia listing by adding the following qualifier: ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing); and (4) deleting ammonium nitrate (solution) as a separately listed chemical on the EPCRA section 313 list of toxic chemicals. Under this action, facilities will be required to include 10 percent of the total ammonia in aqueous solutions in all threshold and release determinations under the EPCRA section 313 listing for ammonia. EPA has concluded that ammonium sulfate (solution) does not meet the EPCRA section 313 criteria based on human health concerns; however, there remain concerns about ecotoxicity from the aqueous ammonia present in this solution. Accordingly, EPA has determined that the aqueous ammonia present in this solution is more appropriately reported under the EPCRA section 313 ammonia listing. EPA has concluded that reporting 10 percent total aqueous ammonia under the ammonia listing is an appropriate way to report aqueous ammonia and provides sufficient information for the public to assess the impacts of releases of aqueous ammonia. EPA has concluded that in order to avoid confusion over what is reportable under the ammonia listing, the listing should be modified to include a description of what is covered by the listing. EPA has concluded that releases of ammonium nitrate (solution) are more appropriately reported under the EPCRA section 313 listings for ammonia and the water dissociable nitrate compounds category.

A. Response to Comments

EPA received 15 comments on the original proposal and 18 comments on the amended proposal. All of the comments received were from members or representatives of the industrial sectors that are subject to the reporting requirements of EPCRA section 313. In this final rule, EPA is providing responses to the major comments received that are relevant to today's final action. In addition, EPA has prepared and placed in the docket for this rulemaking a response to comment document that addresses the additional comments received (Ref. 1). All commenters support the deletion of

ammonium sulfate (solution) and ammonium nitrate (solution) from the EPCRA section 313 list, therefore that aspect of the comments will not be addressed further. Eight of the 18 companies that commented on the amended proposal strongly urged EPA to promulgate this final rule prior to July 1, 1995.

As a separate action, taken at the same time as the original proposal, EPA requested comment on the revised guidance for reporting aqueous ammonia under the ammonia listing (55 FR 12148). Several commenters contended that EPA should not require the reporting of aqueous ammonia from ammonium salts or any proportion of total ammonia by revising guidance but rather should do this by rulemaking. As discussed below, EPA believes that total aqueous ammonia is covered by the EPCRA section 313 ammonia listing. EPA also believes that the quantities of aqueous ammonia manufactured by dissolving water dissociable ammonium salts in water are subject to release and threshold determinations under the EPCRA section 313 ammonia listing. However, one of the reasons EPA amended the original proposal was to respond to these comments and concerns by making this position explicit in the listing. EPA is also providing a new guidance document to reflect the requirements of today's final rule; EPA's previous guidance document on ammonia reporting is no longer applicable. Comments received concerning the previous guidance document that are relevant to today's final rule are addressed below and in the response to comment document.

1. *Neither total ammonia nor the ionized form of ammonia is reportable under the ammonia listing.* Several commenters stated that EPA cannot require the reporting of any portion of the ionized form of ammonia under the EPCRA section 313 ammonia listing because they contend that only the un-ionized form of ammonia is covered by that listing. Two commenters contended that aqueous ammonia is ammonium hydroxide and that it is not listed on nor is it reportable under the EPCRA section 313 ammonia listing. One of these commenters also asserted that ammonium hydroxide is the ionized form of ammonia.

EPA believes that the ionized form of ammonia is covered by the EPCRA section 313 listing for ammonia. The EPCRA section 313 listing for ammonia is not limited to anhydrous forms, and, as such, quantities of ammonia in water (i.e., aqueous ammonia) must be applied to threshold and release determinations for this listing. Aqueous ammonia

consists of two forms of ammonia, the un-ionized form and the ionized form. These are not two discrete chemicals; rather they are two forms of the same chemical, ammonia. When placed in water, ammonia is not destroyed or converted to a different chemical. It simply exists as an equilibrium mixture of the ionized and un-ionized forms with the concentration of each form mainly dependent on the pH and temperature of the solution.

With regard to the purported chemical ammonium hydroxide (NH_4OH), this is a misnomer. It is a common name used to describe a solution of ammonia in water, typically a concentrated solution of 28 to 30 percent ammonia. Aqueous ammonia is not ammonium hydroxide. The true nature of aqueous ammonia "deviates appreciably from the simple composite of ammonium and hydroxide ions" (Ref. 2). In the process of dissolving ammonia in water ($\text{H}_2\text{O} + \text{NH}_3 \rightarrow \text{'A'}$), 'A' is not ammonium hydroxide. "There is clear evidence that it is not ammonium hydroxide under two important conditions (1) in aqueous solution (Ref. 3); and (2) as a solid (which exists only at low temperatures) (Refs. 4 and 5)" (Ref. 6). It is reasonable to conclude, in accord with modern theories of bonding, that 'A' consists of ammonia and water molecules engaged in hydrogen bonding (Refs. 6 and 7). It is clear that dissolving ammonia in water does not result in a new chemical compound, i.e., ammonium hydroxide, but rather results in hydrated ammonia. The pH and temperature dependency of the equilibrium between the un-ionized and ionized forms of ammonia reveal that the 28 to 30 percent solutions of ammonia in water (which, as noted above, are sometimes referred to as ammonium hydroxide) must consist almost entirely of the un-ionized form of ammonia. EPA has consistently responded to questions regarding the reportability of these purported ammonium hydroxide solutions under the EPCRA section 313 ammonia listing by stating that these are 28 to 30 percent solutions of ammonia in water and that the ammonia in this solution is reportable under the ammonia listing.

The issue of what is reportable under the ammonia listing should no longer be a subject of debate since in today's final rule EPA is modifying the ammonia listing to make it clear that 10 percent of total aqueous ammonia from all sources is reportable under the ammonia listing.

2. *Total ammonia should not be reported under the ammonia listing.* All commenters responding to the original proposal stated that EPA should not require the reporting of total aqueous

ammonia (i.e., the sum of the un-ionized and ionized forms of ammonia) under the ammonia listing since this drastically overstates the amount of the toxic un-ionized form of ammonia in a facility's releases. Commenters stated that under environmental conditions aqueous ammonia consists mainly of the relatively non-toxic ionized form of ammonia. Commenters stated that reporting total aqueous ammonia would mislead the public as to the volume of toxic chemical released.

EPA believes that the toxicity characteristics of aqueous ammonia do not preclude the reporting of total aqueous ammonia. The consensus of the scientific community is that the toxicity of a solution of aqueous ammonia is dependent on the pH and temperature of the solution. Studies of the pH and temperature dependency of aqueous ammonia toxicity have led to the commonly held opinion that the ionized form of ammonia is relatively less toxic than the un-ionized form, perhaps as much as 100 times less toxic. However, the exact toxicity of each form cannot be independently measured since under conditions that will support most aquatic organisms each form is always present at some level. In addition, the pH and temperature dependency of aqueous ammonia toxicity is not simply a reflection of the amount of the un-ionized form of ammonia present. Therefore, EPA does not believe that reporting total aqueous ammonia in some manner would drastically overstate the amount of toxic chemical released since both forms of ammonia contribute to the toxicity of an aqueous solution of ammonia. In today's final rule EPA is not requiring the reporting of total aqueous ammonia under the ammonia listing. EPA is limiting the reporting of aqueous ammonia to a proportion of total aqueous ammonia in consideration of the fact that the un-ionized form of ammonia is relatively more toxic than the ionized form. EPA believes that this alternative is less burdensome since a smaller number of facilities will meet the reporting thresholds based on 10 percent total aqueous ammonia than would if EPA required the reporting of total aqueous ammonia. In addition, EPA believes that this alternative addresses concerns raised by the regulated community about how reporting total aqueous ammonia would mislead the public as to the volume of the toxic chemical released.

3. *Under EPCRA section 313 reporters are not required to consider chemical conversions that occur in the environment.* Because some commenters contend that ionized ammonia and un-

ionized ammonia are two different chemicals, they argue that by requiring facilities to base release determinations on 10 percent of total aqueous ammonia EPA is requiring facilities to report releases of a chemical that is not listed on EPCRA section 313. They contend that the statute does not require facilities to report on conversion of non-listed chemicals into listed chemicals where such conversion takes place after release to the environment.

EPA disagrees. As stated above in Unit III.A.1. of this preamble, EPA believes that un-ionized ammonia and ionized ammonia are two forms of one chemical not two separate chemicals. Therefore, EPA is requiring that only a fraction of the total releases of the listed chemical be reported. Further, even if EPA were to accept the argument that these two forms were actually two separate chemicals, EPA believes that it would be appropriate to list a chemical on EPCRA section 313 because the chemical is transformed in the environment into a more toxic chemical. EPCRA allows EPA to add a chemical to the section 313 list if the chemical is "known to cause or can reasonably be anticipated to cause" certain adverse human health or environmental effects. The statute and the legislative history do not specifically preclude the consideration of whether the listed chemical is transformed in the environment to a more toxic chemical that causes the adverse effects in evaluating whether or not a chemical meets the statutory criteria for listing under EPCRA section 313. EPA believes that environmental transformations can and should be considered in determining whether or not a chemical should be subject to reporting under EPCRA section 313. When listing a chemical on the EPCRA section 313 list that is transformed in the environment to a more toxic chemical, EPA requires threshold and release determinations to be made only on quantities of the listed chemical, not on quantities of the more toxic chemical generated subsequent to release into the environment.

4. *The un-ionized portion of aqueous ammonia should be calculated based on the pH and temperature of the industrial effluent.* Commenters stated that only the un-ionized form of ammonia should be reported for aqueous ammonia and that the reporting should be based on calculations using the pH and temperature data of the facility's effluent. Commenters state that this is the most accurate information that can be provided concerning the amount of the toxic chemical released by the facility.

EPA believes that reporting the amount of the un-ionized form of ammonia in an aqueous ammonia release without reporting the pH and temperature of the release would not adequately report or characterize the toxic chemical released. For aqueous ammonia, in order to appropriately characterize the toxic chemical released, not only would the amount of the un-ionized form have to be reported but the pH and temperature of the effluent solution (which are data not currently required to be reported under EPCRA section 313) would have to be reported as well. This is because the toxicity of aqueous ammonia solutions is dependent on the pH and temperature of the solution; the toxicity of aqueous ammonia is not dependent solely on the amount of the un-ionized form of ammonia present. The pH and temperature dependency of aqueous ammonia toxicity is not simply a reflection of the amount of the un-ionized form of ammonia present since in the lower pH range (where there is less un-ionized ammonia), aqueous ammonia is more toxic when expressed in terms of the concentration of the un-ionized form. Therefore effluent solutions cannot be appropriately reported or characterized based solely on the amount of the un-ionized form of ammonia present. For aqueous ammonia, the nature of the toxic chemical released or its impact on the environment cannot be determined unless, at a minimum, total aqueous ammonia can be determined from the reported data. The pH and temperature data not only provide information as to the true nature of the toxic chemical releases but can also be used to determine total aqueous ammonia from the amount of un-ionized ammonia present. The only alternatives to reporting the pH and temperature data for releases are to report total aqueous ammonia or a proportion of total aqueous ammonia which when combined with environmental pH and temperature data are sufficient to characterize the toxic chemical released. Under any of these reporting options, the user of the data must still acquire environmental pH and temperature data in order to fully characterize the environmental significance of a release. However, this information can be readily obtained from public sources and would not involve access to information from a facility's private records. If facilities are allowed to report only the amount of the un-ionized form of ammonia in a release, then the pH and temperature of each release (to water, to POTWs, to land, to

underground injection) as well as off-site transfers for disposal would need to be reported in order to appropriately report and characterize the toxic chemical released. If this information is not collected, then it is not possible for the public to determine the toxicity of the chemical released or to assess the potential impact on the environment from such a release. Reporting only the amount of the un-ionized form of ammonia in a facility's effluent would not provide the public with information sufficient to assess the volume and hazard of the toxic chemical released. For example, a facility could reduce its reportable releases by 10-fold simply by adjusting the pH of its effluent from 7 to 6. However, the same amount of total ammonia would be released under both conditions and upon mixing in the receiving stream the same potential hazard would result from both releases. Therefore, the public would be misled as to the amount and significance of the toxic chemical released.

EPA believes that it would be an unnecessary and overly burdensome requirement to have facilities report the pH and temperature of each release since the alternative of reporting a set percentage of total ammonia without pH and temperature data provides sufficient information to assess the impact of releases to the environment of aqueous ammonia solutions while minimizing burden. Further, EPA believes that aqueous ammonia meets the criteria of EPCRA section 313 primarily, but not exclusively, based on the toxicity of the un-ionized form of ammonia. Therefore, EPA believes it would be inappropriate to require reporting of only the un-ionized form of ammonia.

5. *The un-ionized portion of aqueous ammonia should be calculated based on receiving stream conditions.* Several commenters stated that facilities should be allowed to calculate the concentration of the un-ionized form of ammonia in a release based on the pH and temperature data for the water bodies that they release to, either as the required method or as an alternative to reporting a set percentage of total ammonia.

EPA considered the option of reporting the amount of the un-ionized form of ammonia released based on the pH and temperature of the receiving streams. However, this option has the same problems that occur when using the pH and temperature of the effluent, in that the facility must report the pH and temperature data used to make the calculations in order to appropriately report and characterize the toxic chemical released (see Unit III.A.4. of this preamble). In addition, the pH and

temperature of receiving streams are subject to seasonal variations that are likely to vary much more than that of industrial effluent streams. This would mean that reported releases of un-ionized ammonia would be based on data with much more variability than those based on effluent data. If the pH and temperature information is not reported, then it is not possible to determine the toxicity of the chemical released or to assess the impact on the environment from such a release under various conditions. An additional burden of this option is that it would require reporters to gather information about conditions outside of their facility which is not currently a requirement for reporting under EPCRA section 313. Although information on environmental pH and temperature conditions should be available from public sources, it would be an added reporting burden for reporters to gather such data. The facilities would also still need to report the pH and temperature of their other releases (to land, POTWs, underground injection, etc.) in order to appropriately report and characterize the toxic chemical present in these releases. EPA believes that it would be an unnecessary and overly burdensome requirement to have facilities report the pH and temperature data used to determine each release since the alternative of reporting a set percentage of total ammonia provides sufficient information to assess the impact of releases to the environment of aqueous ammonia solutions and reduces reporting burdens. Further, as stated above in Unit III.A.4. of this preamble, EPA believes that it is inappropriate to require the reporting of only the un-ionized form of ammonia.

6. Reporting a set proportion of total ammonia is not appropriate.

Commenters stated that reporting a set proportion of total aqueous ammonia overestimates releases of the un-ionized form of ammonia for some facilities and underestimates the releases for others, thus misrepresenting the quantity of the un-ionized ammonia released.

Commenters state that the use of national conditions rather than local conditions is inappropriate.

Commenters stated that it is not appropriate to mandate an estimation method (i.e., 10 percent total aqueous ammonia) when the facility may have better information available. Commenters contend that EPA reporting guidance and enforcement policy states that all readily available information be used to calculate releases as accurately as possible and that reporting a set proportion violates this guidance.

EPA believes that reporting a proportion of total ammonia is appropriate. A proportion is used to reflect a reasonable estimation of the amount of the un-ionized form of ammonia that may be present under environmental conditions and takes into account the contribution of the ionized form of ammonia to the toxicity of aqueous ammonia. It also serves as an alternative to the more burdensome reporting requirements of either reporting the amount of the un-ionized form of ammonia in a release along with the pH and temperature of each release or of the receiving stream, or reporting total aqueous ammonia. Given that the ionized form of ammonia contributes to the toxicity of aqueous ammonia and that not all of the aqueous ammonia released will be in the more toxic un-ionized form, EPA believes that it is appropriate to limit the reporting of total aqueous ammonia to a proportion of total aqueous ammonia. For aqueous ammonia, the pH and temperature of the solution are not only used to estimate the proportion of aqueous ammonia existing in the un-ionized form, but also to define the toxicity of the solution at that pH and temperature. For example, the aquatic toxicity of three solutions of aqueous ammonia that each contain 0.1 mg/l of the un-ionized form of ammonia, but at different pH and temperatures (thus, with differing amounts of total ammonia), will not be the same.

EPA does not agree that reporting a proportion of total aqueous ammonia misrepresents the toxic chemical released. As discussed above in Unit III.A.4. of this preamble, EPA believes that reporting only the amount of the un-ionized form of ammonia in a facility's effluent, in the absence of pH and temperature data, misleads the public as to the volume and hazard of the toxic chemical released.

EPA is not mandating an estimation method, rather EPA is defining the limits of the reportability of a listed chemical. How a facility determines what represents 10 percent of total aqueous ammonia in their threshold and release determinations is still determined by the facility.

7. Reporting 10 percent of total aqueous ammonia overestimates the releases of un-ionized ammonia. Of the 18 comments received on the amended proposed rule, 10 commenters stated that reporting 10 percent total ammonia was too high or inappropriate, while 5 other commenters agreed with the proposal, and 2 other commenters agreed at least to some degree with the Agency's proposal. Commenters also stated that EPA should not use a

percentage of total aqueous ammonia that it based on "worst-case scenario" environmental conditions. Of the commenters that oppose the 10 percent standard, 8 suggested that 1 percent would be a more realistic value (since it would be consistent with the 50th percentile for pH and temperature data) as an alternative to calculating the un-ionized portion based on pH and temperature of the effluent. Two commenters on the original proposal stated that, as a default value, 45 percent of total ammonia should be used since this would represent the amount of un-ionized ammonia present at pH 9 and 30 °C and one commenter suggested 7.5 percent as the reporting level which is based on pH 8 and 30 °C. Three commenters cited what they contend are the SAB recommended standard conditions and suggested that reporting 1 percent total aqueous ammonia would be closer to the SAB standard conditions. None of these commenters indicated any support for reporting the pH and temperature data for their releases of aqueous ammonia.

EPA believes that for reporting purposes under EPCRA section 313, 10 percent of total aqueous ammonia is an appropriate proportion to report under the ammonia listing. Both the un-ionized and ionized forms of ammonia are toxic to aquatic organisms with the ionized form being relatively less toxic, but not non-toxic. EPA believes that aqueous ammonia meets the criteria of EPCRA section 313 primarily, but not exclusively, based on the toxicity of the un-ionized form of this chemical. Given the complexity of aqueous ammonia toxicity and the scientific consensus that the un-ionized form is primarily responsible for the aquatic toxicity, EPA believes that it is appropriate to limit the amount of total aqueous ammonia that is reported.

EPA believes that setting the proportion of total aqueous ammonia to be reported based on the 90th percentile for pH and temperature of the Nation's waters is not overly conservative given the complex nature of the toxicity of aqueous ammonia. By using 10 percent of total aqueous ammonia EPA is discounting 90 percent of the releases. EPA believes this addresses concerns raised by some commenters that reporting 100 percent total aqueous ammonia misleads the public as to the hazard associated with the release due to the high numbers associated with such reporting. Ten percent total aqueous ammonia reflects a reasonable estimation of the amount of un-ionized ammonia that may be present under environmental conditions and takes into account the contribution of the ionized

form to the toxicity of aqueous ammonia since total ammonia can be derived from the data. It also serves as an alternative to the more burdensome reporting requirement of reporting the amount of un-ionized ammonia in a release along with the pH and temperature of each release or of the receiving stream. EPA does not believe that discounting 99 percent of a release (i.e., reporting only 1 percent total aqueous ammonia) is appropriate given the nature of the toxicity of aqueous ammonia and the pH and temperature data for the Nation's waters.

EPA does not agree that 10 percent total aqueous ammonia represents a "worst-case scenario." EPA believes that a "worst-case scenario" would be to report a percentage of total ammonia based on the highest pH and temperatures reported for the Nation's waters. A review of the data indicates that the average of the highest reported pH and temperature conditions for each State would result in aqueous ammonia consisting of approximately 75 percent un-ionized ammonia. Therefore, EPA believes that 10 percent is far from being a "worst-case" estimation of the amount of the un-ionized form of ammonia released into the environment. Given the seasonal variations in pH and temperature, it is reasonable to assume that many locations may equal or exceed 10 percent at some point during the year even if the average conditions would produce less than 10 percent un-ionized ammonia. One added complexity is the timing of releases from facilities which may or may not be consistent throughout the year. In fact, higher releases may occur during periods when the pH and temperature of the receiving stream is well above the average conditions resulting in higher concentrations of the un-ionized form of ammonia in the receiving stream than estimated by the average conditions. In addition, there are some other types of releases, such as to deep wells, which may contain aqueous ammonia at pH and temperature conditions that result in much more than 10 percent of the un-ionized form of ammonia being present in the environment. For these releases reporting only 10 percent total aqueous ammonia clearly does not represent a "worst-case scenario" and is a significant reduction in reporting burden since a smaller number of facilities will meet reporting thresholds. Again, as stated above, EPA does not believe that reporting 10 percent total aqueous ammonia is overly conservative or misrepresents the potential impact on the environment or the toxicity of such releases.

The SAB letter received by EPA in response to the Agency's requested review contained the following statement: "For example, if the policy concern is solely for aquatic toxicity, then reporting non-ionized ammonia concentrations at a standard pH and temperature (e.g., pH 7 and 15 °C) would address this endpoint." EPA believes that the important part of this statement is that "a standard pH and temperature" be used. This is consistent with EPA's position that unless a facility reports total aqueous ammonia, a proportion of total aqueous ammonia, or the amount of the un-ionized form of ammonia along with the pH and temperature of the solution released or of the receiving stream, the toxic chemical is not appropriately reported or characterized. With regards to the parenthetical "(e.g., pH 7 and 15 °C)", EPA does not believe that this should be considered as being the recommended pH and temperature to be used. Since "e.g." means "for example", EPA believes that the pH and temperature values in the SAB letter were an example, not a recommended best set of conditions. In fact, the SAB letter gave no justification for these conditions, nor did it provide any discussion of the issue of the most appropriate or standard conditions to use. The SAB letter went on to state, "Thus, the question of whether to list or how to list ammonia or any of its forms is not a scientific issue but strictly a matter of policy for the Agency to decide." EPA believes that reporting a proportion of total aqueous ammonia that is based on reported pH and temperature data for the Nation's waters provides the necessary standard conditions and allows for appropriate reporting and characterization of the toxic chemical released.

8. Releases of aqueous ammonia to Class I wells should be exempt from reporting. Several commenters stated that since the only identified concern for aqueous ammonia is aquatic toxicity, then discharges to Class I deep wells should not be reported since they do not represent an aquatic environment and have no potential for release to an aquatic environment.

EPA does not believe that, for reporting purposes under EPCRA section 313, it is appropriate to exempt the reporting of releases to a particular medium. Although the release of a toxic chemical to one type of medium may have a greater or lesser potential for adverse impacts on human health or the environment, there is always the potential for released material to enter into more sensitive environments. In addition, EPA does not believe that all

of the release information provided under EPCRA section 313 should be viewed as being negative. The fact that one facility discharges to a medium that may pose less of a direct threat to human health or the environment is useful data for the public to know. In addition, there is some question as to whether EPA would have the statutory authority to provide such an exemption: section 313(g) requires facilities to report on the quantities of a toxic chemical entering each environmental medium and does not explicitly provide any mechanism to exempt releases to individual media.

9. Aqueous solutions of ammonium salts are not equivalent to aqueous ammonia from anhydrous ammonia. Some commenters stated that they do not believe that aqueous ammonia from solutions of ammonium salts is equivalent to aqueous ammonia produced from anhydrous ammonia.

EPA does not agree with this comment. As stated in the amended proposed rule, there are differences in the concentrations of the un-ionized form of ammonia between equimolar solutions of aqueous ammonia generated by dissolving dissociable ammonium salts versus anhydrous ammonia. These differences are due to the buffering effects (mainly reflected as pH differences) of the counter ions from the ammonium salts and disappear when both solutions are released to the environment. It is clear that ammonium salt solutions do produce aqueous ammonia since the sources of aqueous ammonia used to test the aquatic toxicity of aqueous ammonia are often ammonium salts (see Ref. 8 and references therein). For example, some of the chemicals that have been used as sources of aqueous ammonia are: Ammonium acetate, ammonium bicarbonate, ammonium carbonate, ammonium chloride, ammonium hydrogen phosphate, and ammonium sulfate. Clearly all of these ammonium salts produce aqueous ammonia that does not significantly differ from that produced from anhydrous ammonia.

B. Conclusion and Rationale for Actions

After reviewing comments received on the original proposal and the amended proposal, EPA has concluded that the four actions proposed in the amended proposal should be adopted as proposed. A brief discussion of the rationale for each action is provided below. A more detailed discussion of the rationales for each of these actions was provided in the amended proposal (60 FR 16830, April 3, 1995).

1. Deletion of ammonium sulfate (solution). EPA has concluded that the

sulfate portion of ammonium sulfate (solution) does not meet the EPCRA section 313(d)(2)(A), (B), or (C) criteria. EPA has previously reviewed the toxicity of sodium sulfate (54 FR 7217 and 54 FR 25850) and concluded that sulfate from sodium sulfate did not meet the EPCRA section 313(d)(2)(A), (B), or (C) criteria. EPA has concluded that the only component of ammonium sulfate (solution) that meets the EPCRA section 313 listing criteria is the aqueous ammonia present in this solution. EPA has concluded that this aqueous ammonia is more appropriately reported under the EPCRA section 313 ammonia listing, therefore it is appropriate to delete ammonium sulfate (solution) from the EPCRA section 313 list of toxic chemicals. EPA has concluded that 10 percent of the ammonium portion of ammonium sulfate (solution) (i.e., 10 percent of the total aqueous ammonia present in this solution) will remain reportable under the ammonia listing.

2. Reporting of 10 percent of total aqueous ammonia. EPA has reviewed all available data and considered all comments concerning how to report aqueous ammonia releases under EPCRA section 313. EPA has concluded that reporting only the amount of the un-ionized form of ammonia released does not provide sufficient information to describe the toxicity of the aqueous ammonia released or the impact of such releases. The toxicity of an aqueous solution of ammonia is not only dependent on the amount of aqueous ammonia or either of the two forms of ammonia present, but also on the pH and temperature of the solution. In addition, as was discussed in Unit III.A.4. of this preamble, reporting only the amount of the un-ionized form of ammonia in a facility's effluent misleads the public as to the volume and hazard of the toxic chemical released. Accordingly, EPA has concluded that reporting total ammonia in some manner is the appropriate way to report aqueous ammonia under EPCRA section 313.

EPA considered three total ammonia options for reporting aqueous ammonia releases that would adequately report and characterize the toxic chemical released. The first way is to report the pH and temperature of each type of release or of the receiving stream. This would better describe the toxicity of the aqueous ammonia released and allow for assessing its impact on the environment since total ammonia can be calculated from the pH and temperature data. The second way is to report total aqueous ammonia. Although this does not in itself better describe the toxicity of the solution released, it does report

all of the aqueous ammonia released and provides sufficient information to assess the potential impact of releases. The third way is to report a proportion of total aqueous ammonia, which provides a level of information similar to reporting total aqueous ammonia but takes into consideration the fact that the un-ionized form of ammonia contributes more to the toxicity of the solution.

EPA has concluded that reporting the pH and temperature data for each release would be an unnecessary reporting burden since a less burdensome alternative to this requirement exists. In the original proposal EPA favored the reporting of total aqueous ammonia under the ammonia listing. However, based on comment, EPA has concluded that another appropriate way to report releases of aqueous ammonia is to report a uniform proportion of total aqueous ammonia. EPA has concluded that reporting only a proportion of total aqueous ammonia is appropriate since aqueous ammonia meets the EPCRA section 313 criteria primarily, but not exclusively, based on the toxicity of the un-ionized form of this chemical. EPA has concluded that reporting 10 percent total aqueous ammonia would be appropriate since, based on the 90th percentile for the pH and temperature conditions in the Nation's waters, 10 percent represents the amount of the un-ionized form of ammonia that would be present in receiving streams from releases of aqueous ammonia. EPA has concluded that considering the variations in the pH and temperature of the types of releases reported under EPCRA section 313, the fact the ionized form of ammonia also contributes to the toxicity of aqueous ammonia, and the potential impacts of aqueous ammonia releases, that the reporting of 10 percent total aqueous ammonia is appropriate. EPA has concluded that reporting 10 percent total aqueous ammonia will not overestimate the potential impacts of these releases and that this provides a much less burdensome method of reporting than requiring the reporting of the pH and temperature data for each release.

The reporting of 10 percent total aqueous ammonia will allow users of the data to determine potential impacts on the environment from such releases. Users of the data can calculate total aqueous ammonia releases by multiplying the reported amount of aqueous ammonia released by 10. The users can then use the amount of total aqueous ammonia released along with the pH, temperature, and other characteristics of the specific receiving

stream to assess the potential impact of the aqueous ammonia releases.

3. Modification of the ammonia listing. The quantities of aqueous ammonia manufactured by dissolving water dissociable ammonium salts in water are subject to release and threshold determinations under the EPCRA section 313 ammonia listing. While clearly reportable, EPA believes that there may be some confusion about this requirement. EPA guidance in response to inquires concerning what is reportable under the ammonia listing has been that aqueous ammonia from water dissociable ammonium salts is reportable under the listing. However, even after publishing this guidance in 1990 (55 FR 12148), EPA continued to receive numerous inquires regarding what should be reported. Therefore, EPA has concluded that a qualifier to the ammonia listing should be added to clarify that aqueous ammonia from water dissociable ammonium salts is reportable under the ammonia listing. EPA believes that this modification of the ammonia listing, specifying that the listing includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources, will aid the regulated community in determining whether they are required to report and will eliminate any confusion over what is reportable under the ammonia listing. This modification also includes the 10 percent total aqueous ammonia reporting limit.

4. Deletion of ammonium nitrate (solution). EPA has concluded that deleting ammonium nitrate (solution) from the EPCRA section 313 list is appropriate because the recent addition of the water dissociable nitrate compounds category (59 FR 61432, November 30, 1994) and reporting of aqueous ammonia from water dissociable ammonium salts under the ammonia listing (as clarified in this final rule) negate the need for a separate listing for this chemical solution. EPA has concluded that this is not a significant change since the releases of ammonium nitrate (solution) are still reportable under the EPCRA section 313 listing for ammonia and the water dissociable nitrate compounds category. Under the water dissociable nitrate compounds category, the amount of ammonium nitrate in solution is counted in threshold determinations for the category, but only the amount of nitrate ion is counted in release and transfer determinations, therefore no double counting of releases will occur. This deletion simply consolidates the reporting of ammonium nitrate

(solution) under existing EPCRA section 313 listings.

IV. Effective Dates

All provisions of this rule are final June 7, 1995. However, these changes (with the exception of the deletion of ammonium nitrate (solution)) are effective for the 1994 reporting year. The deletion of ammonium nitrate (solution) listing is effective for the 1995 reporting year.

Section 313(d)(4) of EPCRA provides, "Any revision [to the section 313 list] made on or after January 1 and before December 1 of any calendar year shall take effect beginning with the next calendar year. Any revision made on or after December 1 of any calendar year and before January 1 of the next calendar year shall take effect beginning with the calendar year following such next calendar year." EPA interprets this delayed effective date provision to apply only to actions that add chemicals to the section 313 list; EPA may, at its discretion, make deletions from the list and amendments to listings immediately effective.

EPA believes that the purpose behind section 313(d)(4) is to allow facilities adequate planning time to incorporate newly added chemicals to their TRI release data collection processes. A facility would not need additional planning time not to report releases of a delisted chemical. Moreover, where EPA has determined that a chemical does not satisfy the criteria of section 313(d)(2)(A) through (C), no purpose is served by requiring facilities to collect release data or file release reports for that chemical, or, therefore, by leaving that chemical on the section 313 list for any additional period of time. Nothing in the legislative history suggests that section 313(d)(4) was intended to apply to deletions as well as additions. Thus, a reasonable construction of section 313(d)(4), given the overall purposes and structure of EPCRA--to provide the public with information about chemicals which meet the criteria for inclusion on the section 313 list--is to apply the delayed effective date requirement only to additions to the list. This construction of section 313(d)(4) is also consistent with previous rules deleting chemicals from the section 313 list.

An immediately effective date for two of the actions in this final rule is also consistent with 5 U.S.C. section 553(d)(1), since a deletion from the section 313 list relieves a regulatory burden. EPA believes the combined effect of the changes in this final rule would be to reduce the burden by clarifying what is reportable under the

ammonia listing and by simplifying the reporting requirements for ammonia. In addition, the requirement that facilities include 10 percent of total ammonia in aqueous solutions in threshold determinations might relieve some facilities from the obligation to report for aqueous ammonia.

The following effective dates and requirements apply to this final rule.

1. *Deletion of ammonium sulfate (solution)*. The deletion of ammonium sulfate (solution) is effective for the 1994 reporting year (reports due July 1, 1995).

2. *Deletion of ammonium nitrate (solution)*. The deletion of ammonium nitrate (solution) is effective for the 1995 reporting year (reports due July 1, 1996). EPA is delaying the effective date of this provision to coincide with the effective date of the recently-added water dissociable nitrate compounds category (59 FR 61432, November 30, 1994). The requirement that aqueous ammonia from ammonium nitrate (solution) be reported under the ammonia listing as 10 percent of total aqueous ammonia is also effective for the 1995 reporting year.

3. *Reporting 10 percent of total aqueous ammonia*. The requirement that 10 percent of total aqueous ammonia be reported under the ammonia listing for aqueous ammonia from all water dissociable ammonium salts (except ammonium nitrate (solution)) is effective for the 1994 reporting year. EPA believes that facilities that have been subject to record keeping requirements for ammonium sulfate (solution) already have the information needed to calculate threshold and release quantities for 10 percent total aqueous ammonia. Specifically, a facility would multiply the appropriate ammonium sulfate (solution) quantities by 2.7 percent, which represents 10 percent of the weight percent of aqueous ammonia from ammonium sulfate (solution).

Facilities that currently report or make threshold determinations for the aqueous ammonia from other water dissociable ammonium salts may not be keeping the kind of information in their records that would allow them to calculate 10 percent of total aqueous ammonia from their un-ionized ammonia data. EPA recognizes that issuance of this final rule has come so close to the reporting deadline that some of these facilities may not be able to comply with this requirement before the July 1, 1995 reporting date.

Accordingly, for this one year, such facilities can continue to use the pH and temperature of their process and waste streams to estimate the quantities of un-

ionized ammonia present for threshold and release determinations, respectively.

Facilities that have already reported under the current requirements are not required to resubmit their reports under the new requirements. They can, however, withdraw their reports if they did not meet the threshold for ammonia under the revised ammonia listing.

V. Rulemaking Record

The record supporting this final rule is contained in docket number OPPTS-400032B. All documents, including an index of the docket, are available in the TSCA Nonconfidential Information Center (NCIC), also known as, TSCA Public Docket Office from noon to 4 p.m., Monday through Friday, excluding legal holidays. TSCA NCIC is located at EPA Headquarters, Rm. NE-B607, 401 M St., SW., Washington, DC 20460.

VI. References

- (1) USEPA/OPPT. "Response to Comments Received on the March 30, 1990 and April 3, 1995 Proposed and Amended Proposed Rules to Delete Ammonium Sulfate (solution) from the EPCRA Section 313 List", U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, Washington, DC (1995).
- (2) Tuttle, Jr., T. R., "Ammonium Hydroxide: What is its Structure?", Letters to the Editor No. 1 and No. 3, *Journal of Chemical Education*, 68, (1991), p. 533.
- (3) Grunwald, E.; Ralph, E. K., "Kinetic Studies of Hydrogen-Bonded Solvation Complexes of Amines in Water and Hydroxylic Solvents", *Accounts of Chemical Research*, 4, (1971), pp. 107-113.
- (4) Bertie, J.E.; Morrison, M. M., "The Infrared Spectra of the Hydrates of Ammonia, $\text{NH}_3 \cdot \text{H}_2\text{O}$ and $\text{NH}_3 \cdot 2\text{H}_2\text{O}$ ", *Journal of Chemical Physics*, 73, (1980), pp. 4832-4836.
- (5) Bertie, J.E.; Shehata, M. R., "Ammonia Dihydrate: Preparation, X-Ray Powder Diffraction Pattern and Infrared Spectrum of $\text{NH}_3 \cdot \text{H}_2\text{O}$ and $\text{NH}_3 \cdot 2\text{H}_2\text{O}$ at 100 K", *Journal of Chemical Physics*, 81, (1984), pp. 27-29.
- (6) Yoke, J., "Ammonia and Water Molecules Engaged in Hydrogen Bonding", Letter to the Editor No.2, *Journal of Chemical Education*, 68, (1991), p. 533.
- (7) Yoke, J., "Ammonium Hydroxide Does Not Exist", *Journal of Chemical Education*, 66, (1989), p. 310.
- (8) USEPA/OW. "Ambient Water Quality Criteria for Ammonia - 1984", U. S. Environmental Protection Agency, Office of Water Regulations and

Standards, Washington, DC, EPA 440/5-85-001 (1985).

VII. Regulatory Assessment Requirements

A. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. Under section 3(f), the order defines a "significant regulatory action" as an action likely to lead to a rule (1) Having an annual effect on the economy of \$100 million or more, or adversely and materially affecting a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities (also referred to as "economically significant"); (2) creating serious inconsistency or otherwise interfering with an action taken or planned by another agency; (3) materially altering the budgetary impacts of entitlements, grants, user fees, or loan programs; or (4) raising novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order. Pursuant to the terms of this Executive

Order, it has been determined that this final rule is not "significant" and therefore not subject to OMB review.

B. Regulatory Flexibility Act

Under the Regulatory Flexibility Act of 1980, the Agency must conduct a small business analysis to determine whether a substantial number of small entities would be significantly affected by the final rule. Because the final rule does not create any new requirements and consolidates other requirements, it would not significantly affect facilities, including small entities.

C. Paperwork Reduction Act

This final rule does not result in any new information collection requirements subject to the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq.

D. Unfunded Mandates Reform Act of 1995

Pursuant to Title II of the Unfunded Mandates Reform Act of 1995, which the President signed into law on March 22, 1995, EPA has assessed the effects of this regulatory action on State, local and tribal governments, and the private sector. This action does not result in the expenditure of \$100 million or more by any State, local or tribal governments, or by anyone in the private sector. The cost associated with this action are described

in the Executive Order 12866 unit above.

List of Subjects in 40 CFR Part 372

Environmental protection, Chemicals, Community right-to-know, Reporting and recordkeeping requirements, and Toxic chemicals.

Dated: June 26, 1995.

Lynn R. Goldman,

Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances.

Therefore, 40 CFR part 372 is amended as follows:

PART 372—[AMENDED]

1. The authority citation for part 372 continues to read as follows:

Authority: 42 U.S.C. 11023 and 11048.

2. In § 372.65 by revising the entries for ammonia and ammonium nitrate (solution) and removing the entire entry for ammonium sulfate (solution) under paragraph (a), and revising the CAS No. entries for 6484-52-2 and 7664-41-7 and removing the entire CAS No. entry for 7783-20-2 under paragraph (b) to read as follows:

§ 372.65 Chemicals and chemical categories to which this part applies.

* * * * *
(a) * * *

| Chemical name | CAS No. | Effective date |
|--|-----------|----------------|
| * * * * * | * * * | |
| Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing) | 7664-41-7 | 1/1/87 |
| Ammonium nitrate (solution) | 6484-52-2 | 1/1/87* |
| * * * * * | * * * | |

*Note: Ammonium nitrate (solution) is removed from this listing; the removal is effective July 2, 1995, for the 1995 reporting year.

(b) * * *

| CAS No. | Chemical name | Effective date |
|-----------|--|----------------|
| * * * * * | * * * * * | |
| 6484-52-2 | Ammonium nitrate (solution) | 1/1/87* |
| * * * * * | * * * * * | |
| 7664-41-7 | Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing) | 1/1/87 |
| * * * * * | * * * * * | |

*Note: CAS No. 6484-52-2 is removed from this listing; the removal is effective July 2, 1995, for the 1995 reporting year.

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[FR Doc. 95-16184 Filed 6-29-95; 8:45 am]
BILLING CODE 6560-50-F

40 CFR Part 372

[OPPTS-400057A; FRL-4946-3]

Sulfuric Acid; Toxic Chemical Release Reporting; Community Right-To-Know

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is modifying the listing for sulfuric acid on the list of toxic chemicals subject to section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) in response to a petition. Specifically, EPA is deleting non-aerosol forms of sulfuric acid from the list of toxic chemicals subject to section 313. This deletion of non-aerosol forms of sulfuric acid is based on EPA's review of the available data on the health and environmental effects of sulfuric acid. EPA has concluded that these forms of sulfuric acid cannot reasonably be anticipated to cause adverse effects on human health or the environment under normal exposure scenarios. Therefore, these forms of sulfuric acid meet the EPCRA section 313(d)(3) deletion criteria. By promulgating this rule, EPA is relieving facilities of their obligation to report releases of non-aerosol forms of sulfuric acid that occurred during the 1994 reporting year, and releases that will occur in the future.

DATES: This rule is effective June 30, 1995.

FOR FURTHER INFORMATION CONTACT: Maria J. Doa, Petitions Coordinator, 202-260-9592, e-mail:

doa.maria@epamail.epa.gov, for specific information on this final rule, or for more information on EPCRA section 313, the Emergency Planning and Community Right-to-Know Hotline, Environmental Protection Agency, Mail Code 5101, 401 M St., SW., Washington, DC 20460, Toll free: 1-800-535-0202, in Virginia and Alaska: 703-412-9877 or Toll free TDD: 1-800-553-7672.

SUPPLEMENTARY INFORMATION:**I. Introduction***A. Statutory Authority*

This action is issued under sections 313(d) and (e)(1) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), 42 U.S.C. 11023. EPCRA is also referred to as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99-499).

B. Background

Section 313 of EPCRA requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report their environmental releases of such chemicals annually. Beginning with the 1991 reporting year, such facilities must also report pollution prevention and recycling data for such chemicals, pursuant to section 6607 of the Pollution Prevention Act (42 U.S.C. 13106). When enacted, section 313 established an initial list of toxic chemicals that was comprised of more than 300 chemicals and 20 chemical categories. Section 313(d) authorizes EPA to add chemicals to or delete chemicals from the list, and sets forth criteria for these actions. Under section 313(e)(1), any person may petition EPA to add chemicals to or delete chemicals from the list. EPA has added and deleted chemicals from the original statutory list. Pursuant to EPCRA section 313(e)(1), EPA must respond to petitions within 180 days either by initiating a rulemaking or by publishing an explanation of why the petition has been denied.

EPA issued a statement of petition policy and guidance in the **Federal Register** of February 4, 1987 (52 FR 3479), to provide guidance regarding the recommended content and format for petitions. On May 23, 1991 (56 FR 23703), EPA issued a statement of policy and guidance regarding the recommended content of petitions to delete individual members of the section 313 metal compound categories. EPA has published a statement clarifying its interpretation of the section 313(d)(2) and (d)(3) criteria for adding and deleting chemicals from the section 313 toxic chemical list (November 30, 1994, 59 FR 61439).

II. Description of Petition and Proposed Action

On December 24, 1990, EPA received a petition from the Environmental Policy Center on behalf of American Cyanamid to qualify the listing of sulfuric acid by requiring release reporting only for sulfuric acid aerosols and deleting other forms of sulfuric acid from the list of chemicals under section 313. The petitioner maintains that non-aerosol forms of sulfuric acid do not meet the statutory criteria for acute, chronic, or environmental effects under normal exposure scenarios.

Following a review of the petition, EPA issued a proposed rule in the **Federal Register** of July 26, 1991 (56 FR 34156), proposing to delete non-aerosol forms of sulfuric acid from the list of toxic chemicals under EPCRA section

313. EPA's proposal was based on its conclusion that these forms of sulfuric acid meet the EPCRA section 313(d)(3) criteria for deletion from the list. EPCRA provides at section 313(d)(3) that "[a] chemical may be deleted if the Administrator determines there is not sufficient evidence to establish any of the criteria described in paragraph [(d)(2)(A)-(C)]." Specifically, in the proposed rule, EPA concluded preliminarily that there is not sufficient evidence to establish that non-aerosol forms of sulfuric acid cause adverse acute human health effects, chronic human health effects, or environmental toxicity. This preliminary conclusion, which is detailed in the proposed rule, was based on the Agency's review of the petition, as well as other relevant materials included in the docket.

In the **Federal Register** of February 1, 1993 (58 FR 6609), EPA re-opened the comment period for the proposal to modify the listing of sulfuric acid and announced that a public hearing would be held to address petitions to modify the listings for both sulfuric and hydrochloric acids (a petition was received from BASF Corporation, E.I. du Pont de Nemours and Company, Monsanto, and Vulcan Chemical Company on September 11, 1991, to modify the listing of hydrochloric acid by deleting non-aerosol forms). In this notice, EPA requested comment on a number of issues raised by commenters in response to the proposed rule to modify the listing for sulfuric acid that also apply to hydrochloric acid. Specifically, these issues were: (1) The extent to which EPA should rely on existing regulatory controls under other statutes to support a determination that continuous or frequently recurring releases of these acids are unlikely to cause adverse acute human health effects or significant adverse environmental effects; (2) the sufficiency of the evidence required to determine if the non-aerosol forms of these acids meet the EPCRA section 313(d)(2)(A) and (C) criteria; (3) whether EPA should consider accidental release data in making a finding for environmental effects under EPCRA section 313(d)(2)(C); (4) the relevance of release reporting under other statutory provisions to the issue of whether non-aerosol forms of these acids meet the listing criteria; and (5) other reporting options.

The public meeting was held on March 3, 1993. At this meeting, EPA discussed the specific issues described in the February 1, 1993 notice and presented data on accidental and routine releases of sulfuric and hydrochloric acids. Comments were