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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