

### *Regulatory Flexibility Act*

The Department of the Interior has determined that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The State submittal which is the subject of this rule is based upon counterpart Federal regulations for which an economic analysis was prepared and certification made that such regulations would not have a significant economic effect upon a substantial number of small entities. Accordingly, this rule will ensure that existing requirements previously promulgated by OSM will be implemented by the State. In making the determination as to whether this rule would have a significant economic impact, the Department relied upon the data and assumptions for the counterpart Federal regulations.

### *Unfunded Mandates*

This rule will not impose a cost of \$100 million or more in any given year on any governmental entity or the private sector.

### List of Subjects in 30 CFR Part 935

Intergovernmental relations, Surface mining, Underground mining.

Dated: October 10, 1996.

Allen D. Klein,

*Regional Director, Appalachian Regional Coordinating Center.*

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 60

[FRL-5637-5]

### Standards of Performance for New Stationary Sources: Starch Production Plants, Cold Cleaning Machine Operations, and Organic Solvent Cleaners

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Withdrawal of proposed standards of performance, final action.

**SUMMARY:** New source performance standards (NSPS) required by section 111 of the Clean Air Act (Act) were proposed on September 8, 1994 (59 FR 46381) for new, modified, and reconstructed starch production plants, and on September 9, 1994 (59 FR 46602) for new, modified, and reconstructed cold cleaning machines. After a thorough review and analysis of the

comments received during the public comment period, the Administrator has concluded that the proposed NSPS for these two source categories are not needed. The proposed NSPS are, therefore, being withdrawn.

In the September 9, 1994 notice proposing the NSPS for cold cleaning machines, the EPA proposed to withdraw the NSPS for organic solvent cleaners proposed on June 11, 1980 (45 FR 39765). The NSPS for organic solvent cleaners are also being withdrawn with this document.

**DATE:** These proposed rules are withdrawn as of October 18, 1996.

**ADDRESSES:** *Docket.* Docket No. A-94-18, containing supporting information used in developing the proposed NSPS for starch production plants and a detailed discussion of the comments received during the public comment period; and Docket No. A-94-08, containing the same information pertaining to the proposed cold cleaning machine operations NSPS, are available for public inspection and copying at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (6102), 401 M Street, S.W., Washington, D.C. 20460. The docket is located at the above address in room M-1500, Waterside Mall (ground floor), and may be inspected from 8 a.m. to 4 p.m., Monday through Friday. The materials are available for review in the docket center or copies may be mailed on request from the Air and Radiation Docket and Information Center by calling (202) 260-7548 or 7549. The FAX number for the Center is (202) 260-4000. A reasonable fee may be charged for copying docket materials.

**FOR FURTHER INFORMATION CONTACT:** For information concerning specific aspects of this action, contact Mr. William Maxwell [(919) 541-5430], Combustion Group [starch production facilities] or Mr. Daniel Brown [(919) 541-5305], Coatings and Consumer Products Group [cold cleaning machines]. Both contacts are at the Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

### SUPPLEMENTARY INFORMATION:

#### Starch

#### *The Proposed Standards*

The proposed NSPS for starch production plants would have limited emissions of particulate matter from new, modified, and reconstructed facilities that produce dry starch (including modified starches) derived from corn, wheat, potatoes, tapioca, or

other vegetable sources, and facilities drying starch extracted from the wastewater at snack food production facilities (e.g., potato chips, french fries). Typically, starch production plants are components of larger facilities that prepare a variety of products. For example, a corn wet milling facility will normally produce a range of products that can include animal feed, corn gluten, corn germ, germ meal, corn oil, starch, and starch derivatives. Starch derivatives can include modified specialty starches, dextrins, dextrose, corn syrup, high fructose corn syrup, ethanol, and a variety of sweeteners. Similar ranges of products may be derived from wheat, potatoes, or tapioca.

The starch facilities that would have been affected by the proposed NSPS for starch production plants are new, modified, and reconstructed starch dryers; dextrin roasters; and starch transfer, storage, and loading facilities at which construction, reconstruction, or modification commenced after September 8, 1994. The proposed NSPS would not have applied to any existing starch production facility, unless such a facility was subsequently modified or reconstructed. At the time of proposal, 17 different companies owned and operated the 47 known existing starch production facilities: 20 produced starch from corn; 3 from wheat; 21 from potatoes; 1 from tapioca; and 2 from other vegetable sources. These existing facilities are concentrated in the midwestern United States, but are found in 19 States across the country.

The proposed NSPS would also not have applied to small dryers; small dextrin roasters; or certain starch transfer, storage, and loading facilities located at snack food processing facilities. Specifically, drum dryers and dryers located at snack food processing facilities having a manufacturer's listed dry starch capacity of 907 kilograms per hour (kg/hr) (2,000 pounds per hour [lb/hr]) or less would have been exempt, because of the low level of emissions from these dryers. Similarly, dextrin roasters and starch transfer, storage, and loading facilities at snack food processing facilities would have been exempt if the dry starch capacity of any of the individual facilities was 454 kg/hr (1,000 lb/hr) or less, because of the low level of emissions from these facilities.

A starch dryer is the equipment used to remove uncombined (free) water from starch slurry through direct or indirect heating. There are several types of dryers used at starch production plants, including single-pass (also known as one-pass) flash dryers, ring (also known

as loop) flash dryers, spray dryers, drum dryers, and belt (also known as conveyor, tunnel, or apron) dryers. A dextrin roaster is a reactor vessel, or a series of vessels, in which starch is reacted, through the addition of heat and/or chemicals, to form the modified starch "dextrin" (or "polydextrin"). Starch transfer, storage, and loading facilities include any facility used to blend, mix, mill, grind, screen, convey, transfer, store, or load for shipment (into any container for shipment, including, but not limited to, bag, truck, and rail car) dry starch.

Specifically, the proposed NSPS would have limited particulate matter emissions from ring flash dryers to 45 mg/dscm (0.02 gr/dscf); from single-pass flash dryers to 25 mg/dscm (0.01 gr/dscf); and from spray dryers, drum dryers, and belt dryers to 10 mg/dscm (0.05 gr/dscf). The proposed NSPS would also have limited visible emissions from dextrin roasters and starch transfer, storage, and loading facilities to zero percent opacity.

#### *Rationale for Withdrawing the Proposed NSPS*

The Agency is withdrawing the proposed NSPS for new, modified, or reconstructed starch production plants because it has concluded that promulgation of such standards of performance would achieve little or no emission reduction from starch facilities and, therefore, that promulgation of NSPS is unnecessary, not cost effective, and will not serve the purposes of the Act. After reviewing comments on the September 8, 1994 proposed NSPS, the EPA believes that new, modified, or reconstructed starch facilities that would be subject to the emission standards will employ the best demonstrated technological system of continuous emission reduction (BDT) necessary to meet such standards and, hence, will, or already do, meet the performance standards without additional regulatory requirements.

Although starch production facilities are one of the source categories on the priority list of major source categories for the development of NSPS pursuant to section 111 of the Act (section 60.16), in promulgating the priority list the Agency reserved the right to remove a source category from the priority list if it subsequently determined that promulgating NSPS for a particular source category would have little or no effect on emissions. Indeed, not only is it likely that promulgating NSPS for new or modified starch facilities would achieve little or no emission reduction, but currently available information about the relative size and operating

practices of the starch industry suggests the industry does not pose the environmental concern that the Agency originally believed existed over 14 years ago when it listed starch production facilities on the priority list of major source categories.

Starch processing and production plants were listed in 1982 as one of 59 source categories on the priority list of major source categories because of the concern about particulate matter, a criteria pollutant, that is emitted from starch processing and production facilities in the form of starch dust. Significantly, starch facilities were initially identified in the late 1970's as a source of particulate matter for inclusion on the priority list of major source categories based on the potential for uncontrolled emissions of starch dust from a facility. It is, however, not the current practice of the starch industry, if indeed it ever was, to allow uncontrolled emissions of starch. As discussed below, starch facilities have an economic incentive to minimize losses of their product, starch, by recapturing emissions of starch dust to the extent possible in order to remain competitive. Accordingly, after issuing today's notice that withdraws the proposed NSPS for starch facilities, the Agency may remove the starch industry from the priority list of major source categories for which NSPS are to be promulgated.

#### *Summary of Public Comments*

None of the five commentors to the proposed standards supported the need for the standards. One commentor challenged the need for the NSPS and the remaining commentors addressed the technical aspects of the proposed standards. The comments that address the technical validity of the standards are not discussed in today's notice because they are not relevant to the Agency's decision to withdraw the proposed NSPS. A summary and analysis of these comments has been placed in the docket for the proposed rule.

The commentor that opposes the proposed NSPS argues that the standards are unnecessary, because (1) starch facilities are minor sources of particulate matter, (2) the proposed NSPS would not reduce emissions from new, modified, or reconstructed starch facilities as these facilities will employ BDT that would be required by the regulations to meet the proposed emission standards for particulate matter, (3) the proposed NSPS would impose significant additional administrative and reporting costs with no commensurate environmental

benefits. The Agency agrees with the comments for the reasons discussed below.

#### *Analysis of Comments*

The EPA's analysis indicates that promulgation of NSPS for starch production plants would achieve little or no emission reduction from starch facilities. Owners and operators of starch facilities have a very significant economic incentive to recover as much of the starch particulate emissions from their facilities as possible. Unlike other facilities where particulate emissions are typically an unwanted by-product that not only has no economic value but would, in fact, be expensive for a facility to capture and dispose of properly, particulate emissions at starch facilities are made up of starch, which is of course, the very product of economic value that such facilities produce for sale. To the extent, therefore, that a starch facility captures and minimizes the amount of starch particulates released to the environment, it will have that much more starch product for sale and, hence, be that much more profitable. Indeed, a starch facility that allows the starch that it produces to be wasted as particulate emissions to the environment would be less efficient than a competitor that does not waste its product and would become less competitive and, hence, less profitable than its cleaner and more efficient competitor.

Pursuant to the proposed NSPS, new, modified, and reconstructed starch dryers; dextrin roasters; and starch transfer, storage, and loading facilities would have had to use wet scrubbers or fabric filters, which is the BDT for starch facilities, in order to meet the required emission levels. The EPA's investigations, however, show that existing facilities already collect particulate matter from the exhaust ducts or vents of the affected facilities for the reasons discussed above. Specifically, while most existing starch dryers are, at a minimum, equipped with cyclonic collectors, the newer starch dryers are equipped with low energy wet scrubbers or fabric filters, either alone or in combination with one or more cyclones. Waste water from the scrubbers and collected dust from the fabric filters are returned to the process and not sent to disposal. Similarly, dextrin roasters and starch transfer, storage, and loading facilities employ fabric filters to recover starch emissions in dry form for immediate recycle to the process. (See docket A-94-18, entry II-A-8, pp. 4+).

The fact that existing newer starch facilities already employ BDT (even

though they are not required to do so) supports the conclusion that promulgating NSPS for new or modified starch facilities would achieve little or no emission reduction. Not only would this appear to confirm that existing starch facilities must minimize losses of their product to remain economically competitive, but it further suggests that any new or modified starch facilities, which must function at least as efficiently as existing facilities in order to compete with such facilities, must equal, if not exceed, the amount of starch recaptured by existing facilities and, thereby, effectively control emissions of particulate matter at or below the levels of emissions contemplated by the proposed NSPS.

For the reasons discussed above, the Agency anticipates little or no reduction in particulate matter emissions from starch facilities by mandating maximum emission levels. Arguably, any emission reductions achieved by promulgating NSPS would result from improved operation and maintenance of starch facilities as a result of the proposed monitoring requirements for such facilities. However, it is the EPA's judgement that the potential marginal reduction in particulate matter emission levels from starch facilities does not justify the additional administrative costs (primarily related to monitoring and recordkeeping and estimated at approximately \$1.6 million nationwide) that would be required by the standards of performance.

#### Cold Cleaning Machine Operations and Organic Solvent Cleaners

##### *The Proposed Standards*

The NSPS for organic solvent cleaners, which were proposed on June 11, 1980, would have limited emissions of volatile organic compounds (VOC) and trichloroethylene, perchloroethylene, methylene chloride, 1,1,1-trichloroethane, and trichlorotrifluoroethane from new, modified, and reconstructed organic solvent cleaners. On December 2, 1994, national emission standards for hazardous air pollutants (NESHAP) were promulgated for halogenated solvent cleaners (40 CFR Part 63, Subpart T), and on September 9, 1994, the NSPS for cold cleaning machine operations was proposed. The halogenated solvent cleaner NESHAP and the proposed NSPS for cold cleaning machine operations eliminated the need for the duplicative standards proposed in the NSPS for organic solvent cleaners (45 FR 39766). Therefore, the EPA proposed withdrawal of the NSPS for organic

solvent cleaners when the NSPS for cold cleaning machines was proposed.

The proposed NSPS for cold cleaning machine operations would have limited emissions of VOC from new, modified, and reconstructed cold cleaning machines. Specifically, the proposed NSPS would have limited VOC emissions from cold cleaning machines with a solvent-air interface greater than or equal to 1.8 square meters (19 square feet) by requiring equipment standards and work practices considered to be BDT.

##### *Rationale for Withdrawing the Proposed NSPS*

The decision to withdraw the proposed NSPS is based on the Agency's finding that all cold cleaning machines likely to become subject to the NSPS would employ BDT, even in the absence of the NSPS. The EPA believes that existing regulations are adequate to protect the public health and welfare, and promulgation of the NSPS for cold cleaning machines would impose additional administrative burdens without providing significant emission reductions. In making this decision, the Administrator has concluded that withdrawal of the proposed NSPS is consistent with the purposes of section 111 of the Act in light of current (and expected future) control patterns for cold cleaning machine operations.

The proposed standards were all pollution prevention techniques that minimize the solvent vapor loss from the machine and encourage reuse of solvent. The proposed equipment standards for cold cleaning machines included covers, drain rack, raised freeboard, visible fill line, solvent pump pressure design limits, and a label stating required work practices. The proposed work practices included not exceeding the tank solvent fill line, flushing performed in the freeboard area with continuous stream, operating the agitator without observable splashing, closing the machine's cover when it is not in use or when the agitator is being used, guarding against air drafts when the machine cover is open, draining cleaned parts, storing waste solvent in closed containers, and cleaning up spills. Finally, the proposed NSPS contained reporting requirements including an initial notification report demonstrating equipment compliance and an annual report demonstrating continued equipment compliance. The Office of Management and Budget (OMB) did not find sufficient justification for the annual reporting requirement; therefore, that provision would have been dropped from the proposed NSPS.

Notwithstanding that there is currently no NSPS for cold cleaning machines, these units are already subject to many, if not all, of the regulatory requirements that would be mandated by the NSPS. Cold cleaning machines, for example, that use halogenated solvents are subject to the NESHAP for halogenated solvent cleaning. Furthermore, cold cleaning machines located in non-attainment areas, regardless of whether they use halogenated or non-halogenated solvents, are subject to reasonably available control technology (RACT) rules established pursuant to section 182 of the Act and the 1977 Control Techniques Guideline (CTG) for the Control of VOC Emissions from Solvent Metal Cleaning. The EPA, therefore, believes that the proposed NSPS requirements would be duplicative of existing requirements for cold cleaning machines that are already subject to the 1994 NESHAP for halogenated solvent cleaning and/or RACT rules based on the 1977 solvent metal cleaning CTG.

The existing regulatory requirements establish four levels of coverage for cold cleaning machines; the relative stringency of the regulatory requirements applicable to each category depends on the type of solvent (halogenated, non-halogenated, or mixture of both) used in the operation, and whether the operation takes place in an area designated as attainment or non-attainment of the national ambient air quality standards for ozone.

The first level of coverage would affect cold cleaning machines that (1) use both halogenated and non-halogenated solvents and (2) are located in a non-attainment area. These units are subject to both the NESHAP and RACT requirements. The existing regulatory requirements applicable to machines in this situation not only meet, but exceed, the regulatory requirements of the proposed NSPS. The combination of the NESHAP and RACT requirements provide for the same five equipment standards and nine work practices that would be required by the proposed NSPS. Furthermore, cold cleaning machines in this situation are also subject to monitoring, recordkeeping, and annual reporting requirements that the proposed NSPS would not require.

The second level of coverage would affect cold cleaning machines that (1) use both halogenated and non-halogenated solvents and (2) are operated in an attainment area. These units are subject to the NESHAP requirements only. The NESHAP requires the same work practices as the proposed NSPS and the same

equipment standards with the exception of the drain rack, the label stating the work practices, and the solvent pump pressure design limits. As discussed in the Response to Comments Section below, the solvent pump pressure design limit as proposed in the NSPS would have been deleted if the NSPS had been promulgated. Furthermore, although a drain rack is not specified as an equipment standard in the NESHAP, draining of cleaned parts is a work practice requirement that inherently requires a drain rack, or something of equal utility, to be present. Accordingly, the EPA believes that the existing regulatory requirements applicable to machines in this situation would provide for the same work practices and equipment standards that would be required in a final NSPS. Again, cold cleaning machines in this situation are also subject to monitoring, recordkeeping, and annual reporting requirements that a final NSPS would not have required.

The third level of coverage would affect cold cleaning machines that (1) use only non-halogenated solvents and (2) are located in a non-attainment area. These units are subject to RACT requirements only. The RACT requirements include several of the work practices proposed in the NSPS and all of the equipment standards with the exception of a visible fill line. The work practice requirements included in the proposed NSPS, but not required by RACT, include not exceeding the solvent fill line, flushing to be performed in the freeboard area with continuous stream, operating the agitator without observable splashing, guarding against air drafts when the machine cover is open, and cleaning up spills. It is difficult to verify continued compliance for these and all other work practices proposed in the NSPS and required by RACT. The work practices, however, are common sense pollution prevention techniques that minimize solvent loss and are beneficial to the operators of cold cleaning machines. Accordingly, the EPA believes the existing regulatory requirements applicable to machines in this situation would provide for the work practices and the equipment standards (with the exception of a visible fill line) included in a final NSPS. A final NSPS would have required an initial notification demonstrating compliance with all equipment standards, including a visible fill line. Although the absence of a final NSPS in this situation could result in cold cleaning machines without a visible fill line, as discussed below, the EPA believes all cold

cleaning machines will be constructed with visible fill lines.

Finally, the fourth level of coverage would affect cold cleaning machines that are (1) located in an attainment area and (2) operated with only non-halogenated solvents. These units are subject to neither the NESHAP nor the RACT requirements. Although machines in this situation are not necessarily subject to RACT rules or the NESHAP, to the extent that cold cleaning machines are built to a single standard with BDT, the EPA believes that such machines will meet both the RACT and NESHAP equipment standards. Based on information available to the Administrator, the EPA believes that cold cleaning machines are built to a single standard that reflects BDT as specified in the CTG and NESHAP such that a machine design can be constructed for sale and/or distribution throughout the United States regardless of the machines ultimate location in an attainment or non-attainment area. Similarly, cold cleaning machines built to a single standard reflecting BDT allows the machine operators flexibility in choosing the type of cleaning solvent used (halogenated, non-halogenated, or a mixture). Accordingly, the EPA believes that machines in this situation would meet the equipment standards that a final NSPS would require. The EPA also believes that operators of machines in this situation would meet the work practices that would be included in a final NSPS. The EPA expects that the regulated community would follow such work practices as a matter of course to the extent that such practices are pollution prevention techniques which benefit the operator and reflect prudent, if not standard, operating practices already employed in the industry.

Under a separate action, the Agency may proceed to revise the priority list of major source categories for which NSPS are required by deleting the "organic solvent cleaners" listing. In finalizing this priority list, the Agency indicated that a subsequent finding that any NSPS would have little or no effect on emissions would be sufficient grounds for removing that source category from the priority list (44 FR 49223).

#### *Summary of Public Comments*

Ten comment letters were received during the public comment period following proposal. Two commenters advised the Agency that there was redundancy and duplicative requirements in the proposed NSPS that were already required in the NESHAP and the RACT; the other commenters addressed various technical aspects of

the proposed NSPS. After reviewing all the comments, the EPA has concluded that the proposed NSPS is not needed. A summary and analysis of the ten comment letters received appears in the docket; only those comments pertinent to the decision to withdraw the NSPS are discussed here.

The comment regarding the duplicative requirements in the proposed NSPS and NESHAP suggested that cold cleaning machines could be subject to both standards which would require unnecessary compliance burden with no additional air quality benefit. The comment regarding duplicative requirements in the proposed NSPS and RACT rules suggested that some State RACT rules are more stringent than the proposed NSPS and specific language should be included in the final NSPS stating that more stringent RACT rules take precedence over the NSPS. Two of the technical comments received were in regard to solvent pump pressure design limits stating that certain cleaning operations could only be conducted with high pressure solvents and the final NSPS should not prohibit these operations. These comments are discussed in the following paragraphs.

#### *Analysis of Comments*

The EPA's analysis indicates that the proposed NSPS would achieve little or no emission reduction. At proposal, the Agency acknowledged that promulgation of the NESHAP for halogenated solvent cleaners eliminated the need for the NSPS for organic solvent cleaners and proposed withdrawal of that NSPS. The EPA now believes that existing regulations for cold cleaning machines in the NESHAP and RACT rules are adequate to protect public health and welfare and the proposed NSPS for cold cleaning machines is also unnecessary. If the EPA moved forward with promulgation of the NSPS, the equipment standard for solvent pump pressure would have been eliminated so as not to prohibit necessary cleaning operations for some sectors of industry. With the absence of this equipment standard, the NESHAP equipment standards are essentially the same as the NSPS equipment standards (see rationale for withdrawing the NSPS).

After reviewing its analysis and the submitted comments, it is the Agency's judgment that compliance with the NSPS in this instance would achieve little or no VOC emission reductions; therefore, the benefits of the proposed standards do not justify the additional administrative costs that would be required by an NSPS.

## Economic and Regulatory Impacts

Today's withdrawal of three proposed rules is not a rulemaking; it does not impose or relieve any regulatory requirements or costs on the regulated community or the national economy.

### List of Subjects in 40 CFR Part 60

Environmental protection, Air pollution control, Intergovernmental Relations, Reporting and recordkeeping requirements, Starch production plants, Cold cleaning operations, Organic solvent cleaners.

Dated: October 11, 1996.

Carol M. Browner,  
*Administrator.*

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## 40 CFR Part 372

[OPPTS-400105; FRL-5396-9]

### Copper Metal; Toxic Chemical Release Reporting; Community Right-to-Know

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Denial of petition.

**SUMMARY:** EPA is denying a petition to remove copper metal ( $\text{Cu}^0$ , CAS No. 7440-50-8) from the list of chemicals subject to the reporting requirements under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and section 6607 of the Pollution Prevention Act of 1990 (PPA). This action is based on EPA's conclusion that copper metal does not meet the deletion criterion of EPCRA section 313(d)(3). Specifically, EPA is denying this petition because EPA's review of the petition and available information resulted in the conclusion that copper ion (i.e.,  $\text{Cu}^{+1}$  and  $\text{Cu}^{+2}$ ) can become available from copper metal and that copper ion is highly toxic to several aquatic species.

**FOR FURTHER INFORMATION CONTACT:** Daniel R. Bushman, Acting Petitions Coordinator, 202-260-3882 or e-mail: bushman.daniel@epamail.epa.gov, for specific information regarding this document. For further information on EPCRA section 313, contact the Emergency Planning and Community Right-to-Know Information Hotline, Environmental Protection Agency, Mail Stop 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 taken 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 also must report pollution prevention and recycling data for such chemicals, pursuant to section 6607 of the Pollution Prevention Act of 1990 (PPA), 42 U.S.C. 13106. Section 313 established an initial list of toxic chemicals that was comprised of more than 300 chemicals and 20 chemical categories. Copper was included in the initial list of chemicals and chemical categories. Section 313(d) authorizes EPA to add or delete chemicals from the list, and sets forth criteria for these actions. EPA has added 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.

EPCRA section 313(d)(2) states that a chemical may be listed if any of the listing criteria are met. Therefore, in order to add a chemical, EPA must demonstrate that at least one criterion is met, but does not need to examine whether all other criteria are also met. Conversely, in order to remove a chemical from the list, EPA must demonstrate that none of the criteria are met.

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 submitting petitions. On May 23, 1991 (56 FR 23703), EPA issued guidance regarding the recommended content of petitions to delete individual members of the section 313 metal compound categories. EPA has also published a statement clarifying its interpretation of the section 313(d)(2) criteria for adding and deleting chemical substances from the section 313 list (59 FR 61439, November 30, 1994) (FRL-4922-2).

## II. Description of Petition and Relevant Regulations

On August 17, 1995, EPA received a petition from the National Electrical Manufacturers Association (NEMA) to remove copper metal (CAS No. 7440-50-8) from the list of toxic chemicals subject to the annual release reporting requirements of EPCRA section 313 and PPA section 6607. NEMA suggested that the current unqualified copper listing should be replaced with a qualified listing limited to fume and dust forms only. The petitioner contends that copper metal, in forms other than fume or dust, should be deleted from the EPCRA section 313 list of toxic chemicals because the available data show that copper in metallic form does not meet the criteria for inclusion on the list of EPCRA section 313 chemicals. The petitioner also asserts that copper ion is unavailable from copper metal under environmental conditions.

In addition to being listed under EPCRA section 313, copper metal is regulated by EPA under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Under CERCLA, copper metal is considered a hazardous substance if its particle size is less than 100 micrometers (0.004 inch). Copper ion (i.e.,  $\text{Cu}^{+1}$  and  $\text{Cu}^{+2}$ ) is regulated under the Safe Drinking Water Act (SDWA). In the Federal Register of June 7, 1991 (56 FR 26460), EPA promulgated a maximum contaminant level goal (MCLG) and a national primary drinking water regulation (NPDWR) for copper ion in drinking water. The MCLG was set at 1.3 milligrams/liter (mg/l) of copper ion, and the NPDWR consists of a treatment technique that includes corrosion control treatment, source water treatment and public education.

## III. EPA's Technical Review of Copper Metal

The technical review of the petition to delete copper metal included an analysis of the chemistry, health, ecological and environmental fate data known for this substance.

### A. Chemistry

Copper metal ( $\text{Cu}^0$ ; CAS No. 7440-50-8) is a naturally-occurring reddish, lustrous, ductile, malleable, water insoluble substance, having a melting point of 1083 °C and a boiling point of 2595 °C (Refs. 1 and 2). Copper metal has many commercial uses. Some of the major uses of copper metal include production of copper tubing, copper wire, copper compounds, brass and bronze, to name just a few. Copper metal gradually loses its lustrous