



Department of Energy
Washington, DC 20585
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OPPT Document Control Officer (7407)
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street, SW
Room G-099, East Tower
Washington, DC 20460

Docket Number OPPTS-00255

Dear Sir or Madam:

Re: 63 FR 63926, Multimedia Strategy for Priority Persistent, Bioaccumulative, and Toxic Pollutants and Draft EPA Action Plan for Mercury; Notice of Availability and Solicitation of Public Comments

On November 17, 1998, the Environmental Protection Agency (EPA) published a notice of availability and solicitation of public comment on the draft Multimedia Strategy for Priority Persistent, Bioaccumulative and Toxic (PBT) Pollutants. This Strategy outlines the Agency's comprehensive approach to identify and take action to reduce releases of and exposures to PBT pollutants. It also calls for EPA to develop Action Plans for the 12 PBT pollutants identified as priority. Additionally, the first Action Plan for Mercury is provided for public comment. As indicated in the Notice, comments on both documents were to be presented to EPA on or before February 16, 1999.

The Department of Energy (DOE) appreciates the opportunity to raise concerns and provide input in response to this Notice. The Department supports the Agency's effort to develop a Multimedia Strategy for PBT pollutants in order to coordinate its PBT activities. However, DOE is concerned that the draft Strategy does not provide an adequate framework in order to achieve its stated goals. DOE has provided some recommendations that we believe will help the Strategy become a unifying document.

The enclosed comments are directed toward both the Strategy and the Mercury Action Plan and include viewpoints and issues identified by DOE Field Sites and Program Offices. These comments are introduced for EPA's consideration in developing the Multimedia Strategy for PBT pollutants.

Sincerely,

Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy and Assistance

Enclosure

cc: S. Sasnett, Pollution Prevention Division, EPA

U.S. Department of Energy (DOE)

**Comments on the Draft Multimedia Strategy for
Priority Persistent, Bioaccumulative, and Toxic (PBT) Pollutants**
63 FR 63926; November 17, 1998

General Comments

1. The Executive Summary of the Strategy states that its goal is to "further reduce risks to human health and the environment from existing and future exposure to PBT pollutants." The Strategy also states that "the intention of the Strategy is to make the whole of the Agency's efforts on PBT pollutants more than the sum of its parts." The Department of Energy supports EPA's effort to develop a multimedia strategy for PBT chemicals in order to coordinate its PBT activities. However, DOE is concerned that the draft PBT Strategy does not provide an adequate framework in order to achieve its stated goals. The Strategy primarily provides information on activities that are currently under way or planned, and actions that EPA might take rather than actually describing a clear methodology to achieve its stated goals, for example, how EPA will determine the priority PBT chemicals and how EPA will then select and coordinate its cross-media PBT activities to reduce risks to human health and the environment.

The Department believes that the Strategy should be the document that other Agency PBT initiatives tier from, so that the individual PBT initiatives are understood in the context of the Strategy. For example, the Draft RCRA Waste Minimization PBT Chemical List was published prior to the publication of the Strategy, and has its own reduction goals established. The RCRA PBT List contains fifty-three PBT chemicals, most of which do not appear on the list of twelve priority PBT chemicals in the Strategy. The recently proposed rule under EPCRA to lower reporting thresholds for certain PBT chemicals identifies its own set of chemicals as being PBT. Additionally, the Strategy has its own list of PBT pollutants, many of which are not identified in the other two initiatives. As such, it is difficult to understand how these PBT initiatives fit in under the Strategy, particularly when they are aimed at PBT chemicals that are different from the twelve identified in the Strategy.

The Department recommends that EPA consolidate the multiple PBT lists cited under various EPA draft rules, notices and programs into one master list that would identify the chemicals and programs under which they are being targeted. This list could be an appendix to the Strategy. DOE believes that consolidating the lists would avoid potential confusion to facilities, particularly when EPA has plans to continue adding chemicals to the various lists. This effort would serve to assist the regulated facilities in determining which chemicals they must report on, which chemicals "count" toward certain goals, and it would highlight those PBT chemicals common to all three lists where true multimedia coordination could occur. Consolidation of PBT lists would provide clarification just as EPA's *Title III List of Lists* was recently published to be used by facilities as a reference tool in complying with various regulations under EPCRA and the Clean Air Act.

2. The Department is concerned that the criteria used to identify the PBT chemicals in the RCRA PBT list, the EPCRA PBT list, and the Strategy list of PBT pollutants were different. The RCRA PBT list was developed using the Waste Minimization Prioritization Tool (WMPT) and a composite list of PBT chemicals identified as priorities by other EPA program offices. The EPCRA PBT list was developed by first considering various sources

of lists of PBT chemicals of concern and then selecting those chemicals that met defined numerical criteria based on degree of persistence and bioaccumulation. The Strategy does not specifically state what criteria were used to arrive at the list of twelve BNS Level 1 PBT chemicals.

The Department believes that the Strategy should provide the framework for PBT initiatives by defining a single set of criteria that EPA will use to identify priority PBT chemicals, and that those criteria should be consistent among all initiatives. In addition, DOE believes that the criteria should remain consistent by requiring that a chemical be added only if it meets all **three** criteria (persistence, bioaccumulation **and** toxicity). DOE believes that adding chemicals that exhibit either persistence or bioaccumulation will dilute the focus of EPA's PBT initiatives. Adding numerous chemicals to the PBT list would take away the "priority" status of these chemicals.

Specific Comments

EXECUTIVE SUMMARY

1. Page v, 5th bullet

This bullet lists the international efforts EPA is engaged in to reduce PBT risks.

DOE believes it would be helpful if the Strategy would expand this section to further explain these activities, e.g., naming the participating countries and provide a listing of the specific source regions that are covered by each of the international efforts mentioned. An explanation of how EPA plans to prioritize its international effort with its limited resources would also be helpful (e.g., prioritize on the basis of human health impacts). DOE also believes the Strategy should include a discussion on how potential U.S. impacts from PBT emissions from the eastern hemisphere are evaluated (i.e., mercury emissions from coal-fired power plants in Asia which impact the U.S.)

U.S. Department of Energy (DOE) Comments on the Draft Mercury Action Plan

General Comment

The recent and forthcoming MACT standards for various combustion sources will likely decrease mercury emissions to air but potentially produce new quantities of mercury (and dioxin/furan) contaminated carbon waste, sludges, aqueous wastes, and aqueous effluents from the mercury control systems used. DOE believes that the Mercury Action Plan should address how estimates will be obtained for the expected quantities of these secondary wastes or effluents, the amounts of mercury involved, and how preferred methods of treatment and disposal will be identified.

Specific Comments

OVERVIEW OF THE MERCURY PROBLEM

1. Page 1-6, 2nd paragraph

This paragraph is taken from the *Mercury Study Report to Congress* and states that "Cost-effective opportunities to deal with mercury during the product life cycle, rather than just at the point of disposal, need to be pursued."

DOE suggests that as part of this Strategy, EPA consider regulatory innovations that strongly reward process operators for mercury pollution prevention and for reduction of cross-media transfers. Innovative ways to prevent mercury from entering waste streams, and once there, to treat the wastes in ways that do not release mercury into the environment, need to be developed. DOE suggests that more emphasis be given in the Action Plan to development of such innovations, both technical and regulatory.

STRATEGIC APPROACH

2. Page 1-7, 3rd paragraph.

This paragraph states "Currently, EPA requires that hazardous wastes containing high levels of mercury be treated to recover the elemental mercury from the waste. This requirement may no longer be the preferred approach in all cases since the demand for mercury has been reduced to the point where the supply of recovered mercury exceeds it..".

The Department agrees that mercury recovery may indeed no longer be the preferred approach in all cases. For example, recovered mercury at DOE facilities may be contaminated with radioactive or other impurities that would make it difficult to use. However, DOE believes that recovery of mercury in pure form suitable for reuse should still be of the highest priority. Newer recovery systems, particularly vacuum retort systems, have much lower mercury emissions. If recovery of mercury for reuse can avoid land disposal of significant quantities of mercury wastes and prevent future mercury mining world wide, then it would appear that mercury recovery has environmental value.

The Department believes that EPA should discourage declaring usable chemicals, including mercury, as waste that must then be land disposed. The speculative accumulation rule has resulted in disposal of certain usable chemicals and products, such as lead and mercury. Such disposal wastes the energy and other resources it takes to replace these products. For chemicals such as mercury that continue to be needed in research, industry, and commerce, it may be preferable to ensure consolidated, safe storage in a condition suitable for reuse. Long range estimates of world wide need should be evaluated before taking steps to eliminate "excess" mercury. Special mercury disposal areas may also need to be provided until assurance can be given that disposed mercury forms are stable under foreseeable environmental conditions.

KEY MERCURY ACTION ITEMS

3. Page 1-8.

This section discusses the ten most significant actions that EPA is undertaking to deal with the problem of mercury exposure. Throughout this section, carbon injection is mentioned in several places for control of combustor mercury emissions to air.

DOE is concerned that significant quantities of spent carbon wastes would be generated while there is limited existing disposition capability and capacity for mixed hazardous and radioactive contaminated spent carbon. DOE suggests that the Mercury Action Plan include a description of the R&D needed to (1) determine the amounts of spent carbon that would be generated by carbon injection and carbon bed adsorption for mercury (and dioxin/furan) control, (2) determine the status of the adsorbed mercury *vis a vis* TCLP testing, and (3) determine preferred methods for management of the spent carbon, including radioactively contaminated spent carbon from mixed waste combustors.

4. Page 1-11, Air Regulations, Linking Air Emissions to Water Quality Impacts to Prioritize Control Actions.

EPA plans to combine tools in the Clean Air Act and Clean Water Act to foster an air deposition/water quality management approach with state and local partners.

The Department suggests that this should be expanded to explain how EPA plans to address changes in mercury speciation from stack to water body, i.e., linking air emissions to water quality impacts. This section should also include a description of the R&D, including necessary model development, that would be undertaken.

5. Page 1-13, Pursue Voluntary Reductions in Industrial Use and Releases.

EPA is pursuing a number of voluntary reduction initiatives in the industrial uses and releases of mercury.

The Department supports EPA's efforts to pursue voluntary reductions in industrial use and releases of PBT chemicals, including mercury. For example, DOE is testing technologies to remove mercury from mixed (hazardous and radioactive) wastes that are to be incinerated. This would reduce mercury air emissions and scrubber water loading.

EPA should strongly encourage process improvements for manufacturing and R&D that would reduce or eliminate the use of mercury in manufacturing, R&D, and other processes and remove excess mercury from feed materials. Often the permittee may not consider such pollution prevention methods first, especially if the technology is not well known or is expensive to install or operate. The Department suggests that EPA incorporate development of regulatory incentives for the use of such technologies and other mercury pollution prevention methods into the Action Plan.

6. Page 1-15, Develop Disposal Options for Hazardous Wastes Containing Mercury.

Current waste treatment standards for many hazardous wastes containing mercury are based on recovery of mercury through retorting. EPA is planning to evaluate other options including alternatives based on permanent stabilization of mercury.

The Department believes that a decision to encourage disposal of large quantities of stabilized mercury "wastes" rather than to recover the mercury for reuse may have drawbacks. In the draft Mercury Action Plan, EPA states that mercury recovery systems have mercury emissions and that the supply of mercury is out pacing demand, therefore recovery may not be necessary or desirable. Mercury recovery from wastes may not be the preferred approach in all cases, for example when the recovered mercury would be contaminated with radioactive or other difficult to remove impurities that would hinder its use. Newer recovery systems, however, have greatly reduced mercury emissions. Recovery of mercury for reuse may still avoid the long term need for further mercury ore mining and refining world wide, with their associated energy use and environmental effects. DOE believes that the Mercury Action Plan should state how the options of recovery versus disposal will be identified and evaluated for input to this decisionmaking.