

Congress of the United States
House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

MAJORITY (202) 225-5051
FACSIMILE (202) 225-4784
MINORITY (202) 225-5074

www.oversight.house.gov

February 11, 2008

Mr. Steven L. Johnson
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, D.C. 20460

Dear Mr. Johnson:

The Domestic Policy Subcommittee is conducting an investigation into the work of the Environmental Protection Agency (EPA) to determine if EPA has underestimated mercury emissions related to dental use of mercury. The Subcommittee's hearing on November 14, 2007 revealed significant disparities between the agency's data for mercury emissions related to dental use of mercury and other estimates. EPA has even expressed a lack of confidence in some of its estimates. Furthermore, there are a number of other emissions pathways for which EPA has failed to develop any estimates.

Dental Use of Mercury is Substantial

Dental offices are the third largest user of mercury, after wiring device/switch makers and manufacturers of measuring and control instruments.¹ Dental mercury amalgam, also known as "silver fillings," is about 50 percent mercury. Mercury contained in the existing dental fillings of Americans is one of the largest uses. According to one estimate it comprises over half of all mercury in use today, amounting to over 1000 tons.² Dental amalgam is a significant source of mercury waste in the environment. According to the EPA, "Mercury discharges [in wastewater] from dental offices far exceeded all other commercial and residential sources."³ EPA cites an estimate that 36 percent of mercury

¹ EPA's Roadmap for Mercury p. 36, (July 2006) (online at <http://www.epa.gov/mercury/roadmap/htm>).

² EPA 2004 International Mercury Market Study, cited in Mercury Policy Project, "Current Status of US Dental Mercury Reduction Initiatives," (Oct. 12, 2007)

³ Roadmap *op. cit.*, p. 8

in municipal sewage treatment plants is released by dental offices. Other estimates put the figure closer to 50 percent.⁴

Disparities in Data for Mercury Emissions Related to Dental Use of Mercury

EPA has developed emissions factors for three routes of atmospheric emissions of mercury related to dental use of mercury. They are: sewage sludge incineration, cremation of human remains containing mercury fillings, and direct air emissions from dental offices. At a hearing of the Domestic Policy Subcommittee, testimony from witnesses inside and outside the Agency revealed: 1) significant disparities between official EPA estimates and other, more recent emissions estimates, and 2) no emissions estimates for a number of additional pathways.

Specifically, EPA estimates airborne mercury attributable to sludge incineration to be 0.6 tons per year. This figure may significantly undercount sludge-related mercury pollution, however. The Northeast States for Coordinated Air Use Management estimated that mercury emissions in sludge emissions in the New England alone amount to 0.5 ton per year.⁵ EPA estimates of total mercury emitted as a byproduct of cremation of human remains to be around 0.3 tons per year. EPA's estimate might again significantly understate the magnitude of mercury emissions. The official estimate is based entirely on a single test conducted at a single crematorium nearly 10 years ago.⁶ A recently published article authored by an EPA environmental scientist estimates mercury emissions from cremation at about 3 tons per year, ten times the EPA estimate.⁷

EPA's own confidence in some of its estimates is low. For instance, EPA admits that its mercury emission factor for sludge incineration is "poor," a deficiency it attributes to both the small number of facilities tested and the fact that these facilities were not a random sample of the industry.⁸

Furthermore, there are a number of other dental mercury-related air emissions for which EPA has not developed emissions factors, including dental mercury: in sludge that is landfilled or spread on agricultural or forest land, or that is dried before it is used as fertilizer; in infectious and hazardous waste; in human respiration; removed as grit and

⁴ Report to 31st Conference of New England Governors and Eastern Canadian Premiers, Mercury Task Force Activities and Work Plan, (June 2007)

⁵ NESCAUM, Inventory of Anthropogenic Emissions of Mercury, (November 2005). (Online at <http://www.nescaum.org/documents/inventory-of-anthropogenic-mercury-emissions-in-the-northeast/>)

⁶ Appendix A: NEI Nonpoint HAP Source Estimates – Human Cremation, Footnote 3.

⁷ Alexis Cain et al., "Substance Flow Analysis of Mercury Intentionally Used in Products in the United States," *Journal of Industrial Ecology*, Volume 11, Number 3 (2007)

⁸ Emission Factor Documentation for AP-42 Section 2.2, Sewage Sludge Incineration, Office of Air Quality Planning and Standards, EPA, pp. 3-5 and 4-98 (July 1993) (online at <http://www.epa.gov/ttn/chief/ap42/ch02/bgdocs/b02s02.pdf>).

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finest at wastewater treatment plants and disposed of in a number of ways, and in combined sewer overflows.

In total, EPA estimates of mercury emissions from pathways related to dental use of mercury to be 1.5 tons per year. However, a more realistic estimate for atmospheric emission of dental mercury could range from 7.1 tons per year to 9.4 tons per year, or six times official EPA estimates.⁹

EPA has Statutory Authority to Revise and Improve Emissions Data

As you know, EPA is required by the Clean Air Act (CAA) (codified at 42 U.S.C. § 7401-7671) to monitor emissions and develop emission standards for a number of hazardous air pollutants, including mercury. Fundamental to the establishment of standards is accurate emissions data, and CAA provides EPA with broad authority to obtain the emissions data necessary for achieving the goals of the Act. Section 114 authorizes EPA to conduct inspections and to require monitoring at emissions sources for developing emissions standards, determining violations and “carrying out any provision of this Act.” In addition, there are numerous CAA provisions requiring EPA to base its development and revision of regulatory standards on accurate emissions baseline data. *See, e.g.*, section 112(c)(3) (requiring EPA to develop a sufficient list of area sources of the 30 hazardous air pollutants, including mercury, that present the greatest threat to public health in the largest number of urban areas “*based on actual or estimated aggregate emissions of a listed pollutant or pollutants*” (emphasis added); section 112(e)(2)(B) (requiring EPA to set priorities for promulgating emission standards based on “the quantity ... of emissions or reasonably anticipated emissions”); section 112(k)(2) (requiring EPA to conduct “a program of research with respect to sources of hazardous air pollutants in urban areas”). Finally, CAA also provides for public accountability for EPA’s emissions estimating practices. Section 130 of the Act requires the Agency to “permit any person to demonstrate improved emissions estimating techniques, and following approval of such techniques, the Administrator shall authorize the use of such techniques.”

Committee Request

In order to assist the Subcommittee with its investigation, I am writing to request the following documents:

1) All documents related to EPA’s determination of air pollutant emissions factors for mercury emissions from sewage sludge incinerators, crematoria, and dental offices;

⁹ Testimony of Michael Bender, before the Domestic Policy Subcommittee (November 14, 2007)

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2) All documents pertaining to any discussion, recommendation, or initiative to reconsider mercury emissions factors for sludge incinerators, crematoria, and dental offices, and

3) All documents pertaining to any consideration, recommendation, or initiative to establish emissions factors for mercury: in sludge that is landfilled or spread on agricultural or forest land, or that is dried before it is used as fertilizer; in infectious and hazardous waste; in human respiration; removed as grit and fines at wastewater treatment plants and disposed of in a number of ways, and in combined sewer overflows.

The Oversight and Government Reform Committee is the principal oversight committee in the House of Representatives and has broad oversight jurisdiction as set forth in House Rule X. The Subcommittee requests that you submit this information in electronic form, either on a CD, a DVD, or a flash drive. Please provide these documents no later than **5:00 PM on Friday, February 29, 2008**. An attachment to this letter provides additional information on how to respond to the Subcommittee's request.

If you have any questions regarding this request, please contact Jaron Bourke, Staff Director, at (202) 225-6427.

Sincerely,



Dennis J. Kucinich
Chairman
Domestic Policy Subcommittee

cc: Darryl Issa
Ranking Minority Member

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Responding to Oversight Committee Document Requests

In responding to the document request from the Committee on Oversight and Government Reform, please apply the instructions and definitions set forth below.

Instructions

1. In complying with the request, you should produce all responsive documents in your possession, custody, or control.
2. Documents responsive to the request should not be destroyed, modified, removed, transferred, or otherwise made inaccessible to the Committee.
3. In the event that any entity, organization, or individual denoted in the request has been, or is currently, known by any other name than that herein denoted, the request should be read also to include them under that alternative identification.
4. Each document produced should be produced in a form that renders the document capable of being copied.
5. When you produce documents, you should identify the paragraph or clause in the Committee's request to which the documents respond.
6. Documents produced in response to this request should be produced together with copies of file labels, dividers, or identifying markers with which they were associated when this request was issued. To the extent that documents were not stored with file labels, dividers, or identifying markers, they should be organized into separate folders by subject matter prior to production.
7. Each folder and box should be numbered, and a description of the contents of each folder and box, including the paragraph or clause of the request to which the documents are responsive, should be provided in an accompanying index.
8. It is not a proper basis to refuse to produce a document that any other person or entity also possesses a nonidentical or identical copy of the same document.

9. If any of the requested information is available in machine-readable or electronic form (such as on a computer server, hard drive, CD, DVD, memory stick, or computer backup tape), you should consult with Committee staff to determine the appropriate format in which to produce the information.
10. The Committee accepts electronic documents in lieu of paper productions. Documents produced in electronic format should be organized, identified, and indexed electronically in a manner comparable to the organizational structure called for in (6) and (7) above. Electronic document productions should be prepared according to the following standards:
 - (a) The production should consist of single page TIF files accompanied by a Concordance-format load file, an Opticon reference file, and a file defining the fields and character lengths of the load file.
 - (b) Document numbers in the load file should match document Bates Numbers and TIF file names.
 - (c) If the production is completed through a series of multiple partial productions, field names and file order in all load files should match.
11. In the event that a responsive document is withheld on any basis, you should provide the following information concerning the document: (a) the reason the document is not being produced; (b) the type of document; (c) the general subject matter; (d) the date, author, and addressee; and (e) the relationship of the author and addressee to each other.
12. If any document responsive to this request was, but no longer is, in your possession, custody, or control, you should identify the document (stating its date, author, subject, and recipients) and explain the circumstances by which the document ceased to be in your possession, custody, or control.
13. If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you should produce all documents which would be responsive as if the date or other descriptive detail were correct.
14. This request is continuing in nature and applies to any newly discovered document. Any document not produced because it has not been located or discovered by the return date should be produced immediately upon location or discovery subsequent thereto.
15. All documents should be bates-stamped sequentially and produced sequentially. In the cover letter, you should include a total page count for the entire production, including both hard copy and electronic documents.

16. Two sets of documents should be delivered, one set to the majority staff and one set to the minority staff. The majority set should be delivered to the majority staff in Room 2157 of the Rayburn House Office Building, and the minority set should be delivered to the minority staff in Room B350A in the Rayburn House Office Building. You should consult with committee staff regarding the method of delivery prior to sending any materials.
17. Upon completion of the document production, you should submit a written certification, signed by you or your counsel, stating that (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee or identified in a privilege log provided to the Committee.

Definitions

1. The term “document” means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, interoffice and intra-office communications, electronic mail (email), contracts, cables, notations of any type of conversation, telephone calls, meetings or other communications, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto). The term also means any graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, voice mails, microfiche, microfilm, videotape, recordings and motion pictures), electronic and mechanical records or representations of any kind (including, without limitation, tapes, cassettes, disks, computer server files, computer hard drive files, CDs, DVDs, memory sticks, and recordings), and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term “documents in your possession, custody, or control” means (a) documents that are in your possession, custody, or control, whether held by you or your past or present agents, employees, or representatives acting on your behalf; (b) documents that you have a legal right to obtain, that you have a right to copy, or to which you have access and (c) documents that you have placed in the temporary possession, custody, or control of any third party.
3. The term “communication” means each manner of means of disclosure or exchange of information, regardless of means utilized, where oral, electronic by document or otherwise, and whether fact-to-face, in a meeting, by telephone, mail, telexes, discussions, releases, personal delivery, or otherwise.
4. The terms “and” and “or” shall be construed broadly and either conjunctively or disjunctively to bring within the scope of the request any information which might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.
5. The terms “person” or “persons” means natural persons, firms, partnerships, associations, corporations, subsidiaries, division, departments, joint ventures,

proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, and other units thereof.

6. The terms “referring” or “relating,” with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with, or is in any manner whatsoever pertinent to that subject.