

US EPA ARCHIVE DOCUMENT

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR-2002-0056; FRL-XXXX-X]

[RIN 2060-XXXX]

Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from the Section 112(c) List: Reconsideration

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

**ACTION:** Notice of reconsideration of final rule; request for public comment; notice of public hearing.

**SUMMARY:** On March 29, 2005, EPA published a final rule entitled "Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from the Section 112(c) List" (Section 112(n) Revision Rule). (See 70 FR 15994.) Following that final action, the Administrator received two petitions for reconsideration. In response to those petitions, EPA is announcing its reconsideration of certain aspects of the Section 112(n) Revision Rule. We are requesting comment on the particular

issues identified below for which we are granting reconsideration. Those issues are referenced briefly in the **SUPPLEMENTARY INFORMATION** section of the preamble and described more fully later in this preamble.

We are seeking comment only on the aspects of the Section 112(n) Revision Rule specifically identified in this notice. We will not respond to any comments addressing other aspects of the Section 112(n) Revision Rule or any related rulemakings.

**DATES:** Comments. Comments must be received on or before December 19, 2005. Because of the need to resolve the issues raised in this notice in a timely manner, EPA will not grant requests for extensions beyond this date.

Public Hearing. A public hearing will be held on November 17, 2005. For further information on the public hearing and requests to speak, see the ADDRESSES section of this preamble.

**ADDRESSES:** Comments. Submit your comments, identified by Docket ID No. OAR-2002-0056 (Legacy Docket ID No. A-92-55), by one of the following methods:

- Federal eRulemaking Portal:  
<http://www.regulations.gov>. Follow the on-line instructions for submitting comments.

- Agency Website: <http://www.epa.gov/edocket>. EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.

- E-mail: [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov)

- Fax: (202) 566-1741

- Mail: Air and Radiation Docket and Information Center, U.S. EPA, Mailcode: 6102T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

- Hand Delivery: Air and Radiation Docket and Information Center, U.S. EPA, Room B102, 1301 Constitution Avenue, NW, Washington, D.C. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions. Direct your comments to Docket ID No. OAR-2002-0056 (Legacy Docket ID No. A-92-55). EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.epa.gov/edocket>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted

by statute. Do not submit information that you consider to be CBI or otherwise protected through EDOCKET, regulations.gov, or e-mail. The EPA EDOCKET and the Federal regulations.gov websites are "anonymous access" systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through EDOCKET or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Public Hearing. The public hearing will run from 8:00 a.m. to 5:00 p.m., Eastern time, and will be held in room 111C at the EPA facility, Research Triangle Park, N.C. Persons interested in attending the hearing or wishing to present

oral testimony should notify Ms. Pamela Garrett at least 2 days in advance of the public hearing (see FOR FURTHER INFORMATION CONTACT section of this preamble). The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning this notice. The public hearing for this action will be held on the same date and at the same time and location as the public hearing for the related reconsideration action for the Clean Air Mercury Rule (CAMR), published elsewhere in today's Federal Register.

If no one contacts Ms. Garrett in advance of the hearing with a request to present oral testimony at the hearing, we will cancel the hearing. The record for this action will remain open for 30 days after the date of the hearing to accommodate submittal of information related to the public hearing.

Docket. The EPA has established an official public docket for today's notice, including both Docket ID No. OAR-2002-0056 and Legacy Docket ID No. A-92-55. The official public docket consists of the documents specifically referenced in today's notice, any public comments received, and other information related to this notice. All items may not be listed under both docket numbers, so interested parties

should inspect both docket numbers to ensure that they have received all materials relevant to today's notice.

Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the Air and Radiation Docket and Information Center, U.S. EPA, Room B102, 1301 Constitution Avenue, NW, Washington, D.C. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For general and technical information, contact Mr. William Maxwell, Combustion Group, Emission Standards Division, Mailcode: C439-01, U.S. EPA, Research Triangle Park, NC 27711; telephone number: (919) 541-5430; fax number: (919) 541-5450; e-mail address: [maxwell.bill@epa.gov](mailto:maxwell.bill@epa.gov). For questions about the public hearing, contact Ms. Pamela Garrett, Combustion Group,

Emission Standards Division, Mailcode: C439-01,  
Environmental Protection Agency, Research Triangle Park, NC  
27711; telephone number: (919) 541-7966; fax number:  
(919) 541-5450; e-mail address: [garrett.pamela@epa.gov](mailto:garrett.pamela@epa.gov).

**SUPPLEMENTARY INFORMATION:**

Outline. The information presented in this preamble is organized as follows:

- I. General Information
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  - C. How do I obtain a copy of this document and other related information?
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- IV. Discussion of Issues Subject to Reconsideration
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  - C. Detailed Discussion of Certain Reconsideration Issues Related to Coal-Fired Utility Units as Set Forth in Section VI of the Final Section 112(n) Revision Rule
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  - E. Documents Identified by Petitioners that are Dated After the Close of the Public Comment Period
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- VI. Statutory and Executive Order (EO) Reviews
  - A. EO 12866: Regulatory Planning and Review
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  - F. EO 13175: Consultation and Coordination With Indian Tribal Governments
  - G. EO 13045: Protection of Children from Environmental Health and Safety Risks



H. EO 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

I. National Technology Transfer and Advancement Act (NTTAA)

**I. General Information**

A. Does this reconsideration notice apply to me?

Categories and entities potentially affected by today's notice include:

Category	NAICS code <sup>1</sup>	Examples of potentially regulated entities
Industry	221112	Fossil fuel-fired electric utility steam generating units.
Federal Government	221122 <sup>2</sup>	Fossil fuel-fired electric utility steam generating units owned by the Federal government.
State/local/Tribal Government	221122 <sup>2</sup> 921150	Fossil fuel-fired electric utility steam generating units owned by municipalities. Fossil fuel-fired electric utility steam generating units in Indian country.

<sup>1</sup> North American Industry Classification System.

<sup>2</sup> Federal, State, or local government-owned and operated establishments are classified according to the activity in which they are engaged.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by today's notice. This table lists examples of the types of entities EPA is now aware could potentially be affected by today's notice. Other types of entities not listed could also be affected. If you have questions regarding the applicability of today's notice to

a particular entity, consult Mr. William Maxwell listed in the preceding FOR FURTHER INFORMATION CONTACT section.

B. How do I submit CBI?

Do not submit this information to EPA through EDOCKET, regulations.gov, or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

C. How do I obtain a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of today's notice also will be available on the World Wide Web (WWW) through EPA's Technology Transfer Network (TTN). Following the Administrator's signature, a copy of this notice will be posted on the TTN's policy and guidance page for newly proposed rules at

<http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control.

## II. Background

On March 15, 2005, EPA signed a final action that revised the Agency's December 2000 finding made pursuant to Clean Air Act (CAA) section 112(n)(1)(A), and based on that revision, removed coal- and oil-fired electric utility steam generating units (Utility Units or power plants) from the CAA section 112(c) source category list. The final Section 112(n) Revision Rule was published on March 29, 2005. (See 70 FR 15994.) CAA section 112(n)(1)(A) is the threshold statutory provision underlying the Section 112(n) Revision Rule. That provision requires EPA to conduct a study to examine the possibility of hazards to public health that are reasonably anticipated to occur as the result of hazardous air pollutant (HAP) emissions from Utility Units after imposition of the requirements of the CAA. The provision also provides that EPA shall regulate Utility Units under CAA section 112, but only if the Administrator determines that such regulation is both "appropriate" and "necessary" considering, among other things, the results of the study. EPA completed the study

in 1998 (the Utility Study), and in December 2000 found that it was appropriate and necessary to regulate coal- and oil-fired Utility Units under CAA section 112. That December 2000 finding focused primarily on mercury (Hg) emissions from coal-fired Utility Units. In light of the finding, EPA in December 2000 listed coal- and oil-fired Utility Units on the CAA section 112(c) list of regulated source categories. On January 30, 2004 (69 FR 4652), EPA proposed revising the December 2000 appropriate and necessary finding and, based on that revision, removing coal- and oil-fired Utility Units from the CAA section 112(c) list.

In the final Section 112(n) Revision Rule, EPA revised the December 2000 appropriate and necessary finding, having concluded that it is neither appropriate nor necessary to regulate coal- and oil-fired Utility Units under CAA section 112. EPA took this action because the December 2000 finding lacked foundation and EPA received new information that confirmed that it is not appropriate or necessary to regulate coal- and oil-fired Utility Units under CAA section 112. Based solely on the revised finding, EPA removed coal- and oil-fired Utility Units from the CAA section 112(c) list.

The final Section 112(n) Revision Rule discusses, among other things, two other recent rulemakings. First, on March 10, 2005, EPA finalized the Clean Air Interstate Rule (CAIR), which will reduce nitrogen oxide (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions from coal-fired power plants by about 70 percent when fully implemented. As explained in the final Section 112(n) Revision Rule, EPA expects Hg co-benefit emissions reductions from CAIR. CAIR was published on May 12, 2005. (See 70 FR 25162.)

Second, on March 15, 2005, EPA signed the final CAMR and established standards of performance for Hg for new and existing coal-fired Utility Units, as defined in CAA section 111. CAMR was published on May 18, 2005. (See 70 FR 28606.)

Following promulgation of the Section 112(n) Revision Rule, the Administrator received two petitions, filed pursuant to CAA section 307(d)(7)(B), requesting reconsideration of many aspects of the final Section 112(n) Revision Rule.<sup>1</sup> The purpose of today's notice is to

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<sup>1</sup> One petition was submitted by 14 States: New Jersey, California, Connecticut, Delaware, Illinois, Maine, Massachusetts, New Hampshire, New Mexico, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin (State petitioners). The other petition was submitted by five environmental groups and four Indian Tribes: The Natural Resources Defense Council (NRDC), the Clean Air Task Force

initiate reconsideration of certain issues raised in those petitions.<sup>2</sup>

### III. Today's Action

Today, we are granting reconsideration of, and requesting comment on, many of the issues raised in the two petitions for reconsideration. Generally, the petitioners claim the final Section 112(n) Revision Rule contains legal interpretations and information that are of central relevance to the final rule but that were not sufficiently reflected in the proposed rule, and that they, therefore, did not have an adequate opportunity to provide input on

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(CATF), the Ohio Environmental Council, the U.S. Public Interest Research Group (USPIRG), the Natural Resources Council of Maine; the Aroostook Band of Micmacs, the Houlton Band of Maliseet Indians, the Penobscot Indian Nation, and the Passamaquoddy Tribe of Maine (Indian Township and Pleasant Point) (Environmental petitioners). In this notice, the term "petitioners" refers only to those entities that filed petitions for reconsideration of the Section 112(n) Revision Rule with EPA.

EPA also received four petitions to reconsider the CAMR. EPA's response to those petitions is addressed in a separate Federal Register notice published today.

<sup>2</sup> In a letter dated June 24, 2005, we informed the petitioners that we intended to initiate a reconsideration process of the Section 112(n) Revision Rule for at least one issue raised in the petitions. We indicated that we would provide particulars in a subsequent Federal Register notice. This is that notice. Also in that June 24, 2005 letter, we denied petitioners request that we administratively stay the Section 112(n) Revision Rule under section 307(d)(7)(B). On August 4, 2005, the D.C. Circuit denied a similar request to stay the Section 112(n)

these matters during the designated public comment period.

Further, the petitioners contend that additional information has become available since the close of the public comment period, and that this new information is also of central relevance.

The EPA recognizes that there is a high degree of public interest in the final rule. The public had three opportunities to submit comments on the rulemaking, following the January 30, 2004, Notice of Proposed Rulemaking (NPR), the March 16, 2004, Supplemental Notice of Proposed Rulemaking (SNPR), and the December 1, 2004, Notice of Data Availability (NODA). EPA received, reviewed, and responded to thousands of documents. Thus, a robust public discussion of the rule has already occurred. Nonetheless, in the interest of ensuring ample opportunity to comment on all meaningful aspects of this important rule, we are granting reconsideration on certain issues and asking the public for additional comment. The issues for which we are granting reconsideration at this time, and for which we are soliciting comment, are discussed below.

Our final decision on reconsideration for all the issues for which we are not granting reconsideration today

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Revision Rule pending the outcome of the litigation

will be issued no later than the date by which we take final action on the issues discussed in today's action.

#### **IV. Discussion of Issues Subject to Reconsideration**

##### **A. Legal Interpretations**

In the final Section 112(n) Revision Rule, EPA explained, in detail, its interpretation of CAA section 112(n)(1)(A). Petitioners claim that many of the legal interpretations underlying the final Section 112(n) Revision Rule were not part of the proposal and, therefore, that they did not have an opportunity to comment on them during the designated comment period. They also contend that they did not have an opportunity to address EPA's application of its legal interpretations. At this time, EPA is opening for public comment several aspects of its legal interpretations and its application of those interpretations as provided in the final Section 112(n) Revision Rule.

As explained in the final Section 112(n) Revision Rule, Congress treated Utility Units differently from other major and area sources and provided EPA considerable discretion in determining whether to regulate such units under CAA section 112. CAA section 112(n)(1)(A) provides:

The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of 

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challenging the rule.



emissions by electric utility steam generating units of pollutants listed under subsection (b) of this section after imposition of the requirements of this Act. The Administrator shall report the results of this study to the Congress within 3 years after November 15, 1990. The Administrator shall develop and describe in the Administrator's report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.

At this time, EPA grants reconsideration of its interpretation of the following terms and phrases in CAA section 112(n)(1)(A), and its application of those terms and phrases.

1. Hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units

We solicit comment on all aspects of EPA's interpretation of the above phrase as set forth in the final Section 112(n) Revision Rule and its application of that phrase. Although we seek comment on all aspects of EPA's interpretation and application of the above phrase, we clarify certain points below and identify certain threshold issues raised by petitioners on which we seek additional comment.

As EPA explained in the final Section 112(n) Revision Rule, CAA section 112(n)(1)(A) does not define what constitutes "hazards to public health reasonably

anticipated to occur" and EPA has the discretion to interpret those terms and, using its technical expertise, determine whether Hg emissions from Utility Units pose such hazards. (See 70 FR 15997-98, 16023-25.) EPA also explained in the final Section 112(n) Revision Rule that CAA section 112(n)(1)(A) does not incorporate the requirements of CAA section 112(f), including, but not limited to, the two-part ample margin of safety inquiry set forth at 54 FR 38044 (September 14, 1989) (the benzene analysis), as referenced in CAA section 112(f)(2)(B). Accordingly, in evaluating "hazards to public health reasonably anticipated to occur" under CAA section 112(n)(1)(A), EPA is not subject to the requirements of CAA section 112(f). We are reiterating this point because the petitions exhibited some confusion in this regard.

EPA also noted in the final Section 112(n) Revision Rule that even assuming, *arguendo*, that the health-based aspect of the two-part ample margin of safety inquiry under CAA section 112(f) applied to CAA section 112(n)(1)(A) (which EPA maintains it does not), EPA's conclusions would not have differed from the conclusion it reached in analyzing hazards to public health reasonably anticipated to occur under CAA section 112(n)(1)(A). In this regard,

EPA examined the two steps in the ample margin of safety inquiry under CAA section 112(f) from a public health perspective and concluded that even "if we were proceeding under section 112(f), we would likely conclude that CAIR, and even more so CAMR, not only protects public health, but does so with an ample margin of safety." (See 70 FR 16025.) EPA specifically solicits comment on the above-noted conclusion and EPA's analyses in this regard. (See also section IV.C of today's notice.)

Finally, EPA specifically solicits comment on its interpretation that the relevant inquiry for assessing "hazards to public health reasonably anticipated to occur" under CAA section 112(n)(1)(A) is to focus on HAP emissions resulting from Utility Units. (See generally 70 FR 15998.)

2. After imposition of the requirements of the Act

We solicit comment on all aspects of EPA's interpretation of the above phrase as set forth in the final Section 112(n) Revision Rule and its application of that phrase. (See generally 70 FR 15998-99; section IV of the preamble to the final Section 112(n) Revision Rule.) Among other things, we solicit comment on EPA's reliance on CAIR in this regard.

3. Appropriate and necessary after considering the results

of the study

We solicit comment on all aspects of EPA's interpretation of the term "appropriate." Among other things, we seek comment on EPA's interpretation of CAA section 112(n)(1)(A) as allowing EPA to consider environmental impacts of emissions from Utility Units in the "appropriate" analysis, but only when EPA has already determined that hazards to public health are reasonably anticipated to occur as the result of utility HAP emissions. (See 70 FR 15997-98; section IV of the preamble to the final Section 112(n) Revision Rule.)

We further solicit comment on EPA's application of its interpretation of the term "appropriate." We specifically solicit comment on EPA's application of the term "appropriate" in the context of utility-attributable emissions alone, which reflects EPA's interpretation of CAA section 112(n)(1)(A).

In their petitions, petitioners focus on EPA's alternative "appropriate" argument. Specifically, in the final Section 112(n) Revision Rule, EPA explained that even examining the entire global pool of Hg emissions, as opposed to utility-only attributable Hg (as EPA has interpreted CAA section 112(n)(1)(A)), EPA would still

conclude that it is not appropriate to regulate coal-fired Utility Units on the basis of the global Hg pool under CAA section 112. We seek comment on this argument. (See 70 FR 16028.)

Moreover, we solicit comment on EPA's interpretation of the term "necessary," but only insofar as EPA has interpreted that term as involving an analysis of whether the alternative legal authority identified, if implemented, would result in effective regulation, including, for example, its cost-effectiveness and administrative effectiveness. (See 70 FR 16001.) We also solicit comment on EPA's application of this aspect of the term "necessary." We are not soliciting comment today on EPA's interpretation of the term "necessary" as involving an analysis of whether there is alternative authority under the CAA that, if implemented, would address hazards to public health associated with remaining utility-attributable HAP emissions.

We further solicit comment on EPA's interpretation of the phrase "considering the results of the study" and, in particular, that EPA is not foreclosed from examining relevant information that becomes available after the study. (See 70 FR 15999.) We also solicit comment on

EPA's interpretation of CAA section 112(n)(1)(A) as authorizing EPA to revise a prior appropriate and necessary determination, where, as here, we believe that the December 2000 finding lacked foundation and that new information confirms that it is neither appropriate nor necessary to regulate HAP emissions from Utility Units under CAA section 112. (See 70 FR 16001.)

EPA's interpretation of the above identified terms and phrases in CAA section 112(n)(1)(A) is set forth, in full, in the final Section 112(n) Revision Rule and commenters should refer to that discussion in formulating any comments. In particular, commenters may want to review sections III, IV, V, and VI of the final Section 112(n) Revision Rule.

EPA also specifically solicits comment on EPA's interpretation of CAA sections 112(n)(1)(A) and 112(c)(9), and its explanation as to why the requirements of CAA section 112(c)(9) do not apply to EPA's removal of Utility Units from the CAA section 112(c) source category list. (See generally section VIII of the final Section 112(n) Revision Rule.)

B. EPA's Methodology and Conclusions Concerning Why Utility Hg Emissions Remaining After Imposition of the Requirements of the CAA are not Reasonably Anticipated to Result in Hazards to Public Health

In section VI of the final Section 112(n) Revision Rule, EPA set out a methodology for evaluating utility Hg emissions and deposition. That methodology, among other things, assesses the amount of utility-attributable methylmercury (MeHg) levels in fish tissue and the amount of fish consumption and evaluates the resulting public health effects. EPA also set forth in section VI its conclusions based on that methodology. At this time, EPA is opening for public comment all aspects of this methodology and the conclusions EPA reached, as described and justified in section VI and the associated Section 112(n) Revision Rule technical support documents (TSD).

EPA is also granting reconsideration with respect to materials included in the CAIR docket that EPA incorporated by reference into the docket for the final Section 112(n) Revision Rule, as they pertain to the methodology in section VI of the final Section 112(n) Revision Rule. We ask that anyone who comments on materials in the CAIR docket explain why their comments are pertinent to the issues on which we are granting reconsideration today.

Many of the analytical tools (e.g., Community Multiscale Air Quality model (CMAQ), Mercury Maps (MMaps)) and data sources (e.g., emissions inventories, GEOS-CHEM

global background, and fish tissue concentrations) relevant to the methodology described in section VI of the final Section 112(n) Revision Rule were described in the NODA and the public, therefore, had an opportunity to comment on them previously. Nevertheless, EPA today grants the petitioners' request for an additional opportunity to comment on those analytical tools and data sources, including how they informed our final decision, as discussed in section VI of the final Section 112(n) Revision Rule. Among other things in Section VI, we solicit comment on EPA's treatment of the uncertainties in the analysis that support its determination that utility-attributable Hg emissions remaining after CAIR, and independently CAMR, are not "reasonably anticipated to result in hazards to public health."

Although we are granting reconsideration on the entire methodology and our associated conclusions set forth in section VI of the final Section 112(n) Revision Rule, the following section of this preamble includes additional discussion concerning particular aspects of that methodology.

C. Detailed Discussion of Certain Reconsideration Issues Related to Coal-Fired Utility Units as Set Forth in Section



VI of the Final Section 112(n) Revision Rule

As explained in the prior section, EPA grants reconsideration of its methodology and conclusions contained in section VI of the final Section 112(n) Revision Rule. In this section, we provide additional information and discussion concerning specific aspects of the methodology described in section VI of the final Section 112(n) Revision Rule for which we are soliciting comment.

1. Modeling of Hg Deposition Changes that Result from Implementation of CAIR and CAMR

The petitioners claim that EPA did not provide adequate notice of how EPA intended to use the CMAQ model or of the results from CMAQ model runs. In addition, some petitioners claim that EPA's reliance on the CMAQ model was flawed because (a) the model has not been used before for Hg modeling, (b) the model has not been peer reviewed, and (c) EPA conducted an inadequate performance evaluation.

Other petitioners assert that CMAQ is not precise enough to estimate deposition for the purposes of the final Section 112(n) Revision Rule because the grid size is too large to investigate the possibility of utility hotspots. These petitioners add that CMAQ under-predicts wet deposition and

that its dry deposition rates are inaccurate because there is no dry deposition monitoring against which to evaluate the model predictions. Petitioners add that EPA's averaging of the model-predicted grid-cell-wide average deposition across all grid cells in a watershed obscures areas of higher deposition.

Through the NODA, EPA solicited and received public comment on CMAQ and how EPA intended to use it generally, and responded to those comments in the final Section 112(n) Revision Rule. Even so, as noted above, in the interests of ensuring full opportunity for the public to comment, we grant reconsideration of EPA's use of CMAQ in its public health analysis, and solicit comment on the documentation for CMAQ and the substantive points raised by petitioners, in particular. In addition, we have developed additional information, summarized below, on some of the points raised by petitioners, and solicit comment on that information.

a. Prior Use, and Peer-Review, of the CMAQ Model. The CMAQ model used in the Section 112(n) Revision Rule has been used for Hg modeling previously in model evaluation studies, although not to support a regulatory analysis. We solicit comment on the following information concerning peer review, some of which was included in the docket at

the time of the final Section 112(n) Revision Rule, others of which we have added more recently in support of today's notice.

The CMAQ model has been peer reviewed, as noted in section III of the "Modeling TSD" (Technical Support Document for the Final Clean Air Mercury Rule: Air Quality Modeling; OAR-2002-0056-6130).<sup>3</sup> The CMAQ Hg module is primarily documented in the peer reviewed Atmospheric Environment journal article documented in the Modeling TSD (Bullock and Brehme, 2002). In addition the entire CMAQ model, including the Hg updates documented in the Modeling TSD, underwent further peer review in May 2005. A report containing the results of this peer review is available in the docket (and is also publicly available at <http://www.cmascenter.org> ).

Concerns have also been raised over the exclusion of the State of Alaska (Healy Plant), the State of Hawaii (AES-

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<sup>3</sup> CMAQ Review Panel, 2004: Final Report Summary: December 2003 Peer Review of the CMAQ Model. [http://www.cmascenter.org/html/CMAQ%20peer%20review%20final\\_CMAS-web.pdf](http://www.cmascenter.org/html/CMAQ%20peer%20review%20final_CMAS-web.pdf), Carolina Environmental Programs, Chapel Hill, NC.

CMAQ Review Panel, 2005: Final Report: Second Peer Review of the CMAQ Model. Carolina Environmental Programs, Chapel Hill, NC (<http://www.cmascenter.org>).

Byun, D., and K.L. Schere, 2005: Review of the Governing Equations, Computational Algorithms, and Other Components of the Models-3 Community Multiscale Air Quality (CMAQ) Modeling System. Applied Mechanics Reviews (in press).

Hawaii), and the U.S. Territories from the modeling analyses supporting CAMR. The primary reason for this exclusion is that the meteorological model (Mesoscale Meteorological Model, Version V, which drives the atmospheric chemistry simulation in CMAQ) does not include these remote areas in its current modeling domain. Thus, there is no available meteorological information to assess the transport, diffusion, and deposition from sources in these regions in the CMAQ modeling analyses.

Moreover, EPA assessed the magnitude of emissions from coal-fired power plants in Alaska and Hawaii in the 1999 ICR data and determined that these plants emitted 0.0155 percent and 0.0162 percent, respectively, of the total 48 tons of Hg emissions in 1999. Given the magnitude and density of power plant emissions in the lower 48 States, and the conclusion stated in the final Section 112(n) Revision Rule that emissions in the lower 48 States, after the implementation of CAIR (and moreover CAMR), are not reasonably anticipated to result in hazards to public health, EPA does not reasonably anticipate that Hg emissions from units located in Alaska, Hawaii, and the U.S. Territories pose hazards to public health.

b. CMAQ Model Evaluation. We solicit comment on the evaluation of the CMAQ model performance summarized in section VI of the Section 112(n) Revision Rule and discussed more fully in section IV of the Modeling TSD. In

particular, we seek comment concerning our conclusion that the model performance for CMAQ Hg deposition falls within what has been considered reasonable model performance for ozone and particulate matter model applications.

Currently, there is no continuous measurement network for Hg dry deposition in part because there is no low-cost dry measurement method available for use in such a network. Thus, we are not able to evaluate model performance for Hg dry deposition by comparing model predictions to monitored observations. Nonetheless, we believe our use of CMAQ adequately accounts for Hg dry deposition.

As discussed in the Modeling TSD, the best current scientific understanding is that wet Hg deposition and dry Hg deposition are roughly equal in magnitude. In a recent peer-reviewed journal article, Miller et al. (2005) discuss in detail the state-of-the-science regarding monitoring wet and dry deposition in North America. In general, areas with high precipitation amounts may have more wet Hg deposition and areas with low precipitation amounts may have more dry Hg deposition. The total national CMAQ Hg wet deposition is roughly equal in magnitude to the total national dry deposition (see Modeling TSD) while CMAQ predicts more dry deposition in dry areas of the country and more wet deposition in wet areas of the country, as

empirical evidence would support. (Miller, et al., 2005).

c. Changes in Deposition Predictions. Petitioners state that the model predictions of higher Hg deposition rates in a 2001 scenario in which Utility Unit emissions are zeroed-out, compared to a 2020 scenario in which Utility Unit emissions are reduced but not zeroed-out, reveal the inaccuracies of the model.

The 2001 utility emissions zero-out scenario results in lower Hg deposition than the 2020 with CAIR scenario in the high utility-attributable Hg emissions area of the Ohio River Valley and western Pennsylvania. The CMAQ model predicts lower utility Hg deposition for the 2001 utility Hg emissions zero-out scenario than for the 2020 with CAIR scenario in the areas of highest utility Hg emissions.

There are a few scattered small areas of the country where the 2001 Hg deposition with utility Hg emissions zeroed-out are higher than the 2020 with CAIR Hg deposition. However, these are in areas where local non-utility sources of Hg emissions have decreased between 2001 and 2020. In the 2020 with CAIR scenario, not only are utility Hg emissions reduced from the 2001 scenario, but local non-utility sources of Hg emissions are also reduced from the 2001 scenario (see table 2 of the Modeling TSD).

Thus, the reason that the model predicts higher Hg deposition in some scattered areas for the 2001 utility zero-out scenario, compared to the 2020 with CAIR scenario, is due to decreased Hg emissions from non-utility Hg emissions sources in the 2020 with CAIR scenario.

d. Grid Cell Size and Averaging Across Grid Cells in a Watershed. Petitioners assert that averaging deposition within the 36 kilometer (km) grid cell, and averaging deposition across all grid cells within a watershed, results in imprecise estimates of the effects of Hg emissions on fish tissue in waterbodies. As explained in the final Section 112(n) Revision Rule and section 2.1 of the "Effectiveness TSD" in support of the final Section 112(n) Revision Rule (Methodology Used to Generate Deposition, Fish Tissue Methylmercury Concentrations, and Exposure for Determining Effectiveness of Utility Emission Controls, OAR-2002-0056-6301, OAR-2002-0056-6190), we believe that averaging Hg deposition within a grid cell, and then across all grid cells that comprise a watershed, is a reasonably accurate methodology to indicate the impact of Hg deposition on fish tissue levels in waterbodies within a given watershed.

Processes operating at the watershed (8-digit

hydrologic unit code (HUC)) level likely influence MeHg concentrations in fish at any given location within the ecosystem. As water moves through the watershed, Hg that has been deposited from the atmosphere will also move through the HUC. Fish living in the aquatic ecosystem can move as well. Some species migrate, while others may travel significant distances in large lakes and through river and stream networks while other species remain within smaller geographic areas. Therefore, there is additional geographic uncertainty associated with where the fish are exposed to Hg deposition. Additionally, many fishers visit numerous waterbodies to fish. Averaging to a larger geographic unit (U.S. Geological Survey (USGS) 8-digit HUC) representative of an ecosystem unit (watershed) helps us to avoid modeling false precision between the exposure of fish and the source of the deposited Hg, and fishing activity.

Given all of these factors, averaging enables us to produce an accurate regional or watershed level picture of deposition. Thus, 36 km resolution CMAQ output, which is generally somewhat smaller than the 8-digit HUC resolution, is an appropriate geographic resolution from which to analyze air deposition of Hg to the ecosystem, and averaging deposition across grid cells within a given



watershed enables a watershed-level characterization of Hg.

## 2. EPA's Method for Determining How Changes in Utility-Attributable Hg Deposition Would Result in Changes in Concentrations of MeHg in Fish Tissue

Petitioners claim that the 1,633 sample sites for fish tissue MeHg levels are too few to adequately represent the millions of lake acres and river miles in the U.S. They also argue that the samples do not adequately represent the places where people regularly fish, and in particular that the geographic scope of sample sites is too limited. Petitioners also contend that EPA's elimination of small-sized fish samples resulted in too few sites for Virginia, Pennsylvania, Ohio, and certain other States, even though most of the utility-attributable Hg deposition occurs in these States.

We solicit comment on the sufficiency of the sample site data set for the analytic purposes described in the final Section 112(n) Revision Rule, in particular the specific issues raised by the petitioners. In addition, we solicit comment on the additional information that we have developed, described below, which is pertinent to the concerns expressed by the petitioners, as noted above.

We have re-examined aspects of the sufficiency of the

fish tissue data set related to fish tissue concentrations and believes that because it is not realistic to directly sample, on a yearly basis, over 40 million lake acres and 3 million miles of river, the issue is whether the available samples comprise a representative sample of U.S. waterbodies. As part of this evaluation, EPA examined the geographic area that a single sample represents.

We have examined the similarity of sample sites within a particular geographic area. We define similarity in terms of variance, which is the average squared deviation of all values from the mean. The values are the levels of MeHg in fish tissue at the sample sites. We determine variance on the basis of all the values within particular geographic units.

Our exploratory studies have found that samples taken from within the same watershed are reasonably similar to each other. They are more similar to each other than samples taken within larger geographic areas like States or the entire nation. EPA has examined whether samples continued to be more alike at the smaller geographic unit of a county. The samples are not greatly more alike within counties than they are within watersheds (which can contain several counties). Variance among fish tissue

concentrations from across the nation is 0.21 parts per million (ppm). Average variance within States is 0.07 ppm. Average variance within watersheds is 0.053 ppm, and average variance within counties is 0.050 ppm.

The difference between a geographic unit of analysis on the county level, compared to a watershed level is, 0.003 ppm in variance. This represents less than a 1 percent decrease in variance within the sample data, an amount which is quite small. Note that in the Effectiveness TSD, the average concentration is 0.43 ppm.

The relatively small amount of variance within a watershed of 0.053 ppm, compared to the average concentration of 0.43 ppm, and the comparability of the intra-watershed variance with intra-county variance, supports EPA's use of the available fish tissue samples to adequately represent MeHg levels over a watershed.

Applying this assumption of representativeness means that the fish tissue sample data are representative of all the rivers and lakes found within the watersheds in which they were taken. The set of fish tissue concentration samples used for the Effectiveness TSD covers approximately 24.5 percent of all the HUCs which, in turn, contain 50 percent of lakes and 25 percent of river miles in the U.S.

While EPA does recognize that there are HUCs from which no fish tissue samples have been taken, our sample set provides an adequate regional, watershed-level characterization.

The adequate portrayal or characterization of concentrations in areas that have not been sampled can lead to more uncertainty in the analyses. The unavailability of predictive models to accurately estimate values of Hg concentrations in fish where no samples have been taken makes it difficult to quantitatively assess how representative of unsampled geographic locations the existing sample data set is. Thus, to assess the coverage of the available data set of fish tissue samples, we can examine how similar the data set is to other data resources that provide complete national coverage, and are believed to be related to fish tissue concentrations. Total air mercury deposition is one such data set.

It is not unreasonable to assume that the fish tissue samples would have similar statistical characteristics to Hg deposition concentrations. In other words, if total Hg concentrations are dependent upon total Hg deposition, we would expect the distributional properties in each data set to be similar. The degree of similarity between the distributional properties of the two data sets (deposition and fish tissue concentrations) can be somewhat assessed by a visual comparison of the patterns shown in figures 2.9 and

### 3.4 of the Effectiveness TSD.

Figures 2.9 and 3.4 graphically depict the cumulative distributions for the two data sets - Hg deposition and fish tissue concentration. A visual comparison of these two distributions reveals similar distributional properties. Both data sets show that small numbers of observations (samples/HUCs) have low values, while the majority of the data are within a tightly defined middle range, with the highest concentrations deviating further from the rest of the data, but small in numbers compared with the overall data set.

While examining these data sets in this manner does not conclusively or quantitatively prove that new fish tissue samples would never be outside the statistical range of the existing distributions (minimum and maximum value), it does suggest that if air deposition and fish tissue concentrations have similar distributions, the fish tissue sample data set is representative of the total population of U.S. fish. Thus, the sample of fish tissue concentrations available to EPA for the Effectiveness TSD in support of the final Section 112(n) Rule analyses is adequate to reasonably characterize the range of potential health risks.

In response to petitioners' argument that there are not enough samples in the West, we note that in the Effectiveness TSD, which focuses on examining the role coal-fired power plants play in Hg deposition and fish tissue

concentration, the lower density of samples in the West is of comparatively little concern because of the low utility-attributable Hg deposition there. Figure 2.2 of the Effectiveness TSD shows that in the West, Hg deposition from power plants is less than 1 microgram per square meter ( $\mu\text{g}/\text{m}^2$ ), while in the East, it can account for average HUC levels as high as  $20 \mu\text{g}/\text{m}^2$ . Although these data do not mean that the West is not of any concern, they do show that utility-related impacts are significantly lower in the West than in the East, and, therefore, they do not form a significant portion of the foundation of EPA's decision.

### 3. EPA's Approach to Estimating Utility-Attributable Exposure.

Petitioners provide substantive comments on certain aspects of EPA's decision regarding exposure pathways and health risks associated with Hg exposure. We provide further information below on some of the points they raise, and we solicit comment on this information.

a. Exposure Pathways. The petitioners assert that EPA, by limiting its focus to one fish consumption pathway of Hg exposure - freshwater fish caught by recreational and subsistence fishers - failed to adequately evaluate four other fish consumption pathways for human Hg exposure: (a) marine (saltwater) fish, (b) commercial freshwater fish,

(c) fish produced through aquaculture, and (d) estuarine fish. Furthermore, the petitioners charge that EPA failed to explain the rationale for assessing these pathways qualitatively.

Petitioners are correct that considering the total concentrations of MeHg in fish tissue resulting from all sources of Hg emissions (including global sources), marine fish present the primary source of Hg exposure to most persons living within the U.S. However, as explained in the final Section 112(n) Revision Rule, EPA has interpreted CAA section 112(n)(1)(A) as calling for an analysis of the hazards to public health reasonably anticipated to occur as the result of emissions by Utility Units. Thus, as explained in the final Section 112(n) Revision Rule, the proper inquiry for purposes of CAA section 112(n)(1)(A) is to examine the concentrations of MeHg in fish tissue that result from U.S. coal-fired power plant Hg emissions. As discussed in the final Section 112(n) Revision Rule, emissions of Hg from U.S. coal-fired power plants most significantly impact concentrations of MeHg in freshwater fish; thus, it was appropriate for EPA to focus on this pathway in the CAA section 112 rulemaking. Nonetheless, we recognize that other exposure pathways may still contribute

to the total exposure from U.S. coal-fired power plant Hg emissions, and, thus, we explore them more fully below and in the "Reconsideration TSD" in support of the final Section 112(n) Revision Rule (Technical Support Document: Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from the Section 112(c) List: Reconsideration). EPA solicits comment on all of these issues, comments, and analyses. Marine Fish Pathway. The petitioners argue that because utility-attributable Hg deposits in areas where marine fishing occurs, human health impacts attributable to power plant Hg emissions should be reasonably anticipated, noting that a number of commercially important marine fish have relatively high Hg concentrations.

In the Effectiveness TSD, EPA did acknowledge that marine systems could be affected by U.S. power plant Hg emissions, but concluded that based on the available science marine species do not appear to be significantly affected by Hg emissions from U.S. power plants. The actual quantification of this impact was not conducted because of the scientific uncertainty in modeling marine



systems. (See Reconsideration TSD, section 2.) For today's action, EPA conducted an analysis using upper-bound assumptions, including the assumption of a proportional relationship between decreases in utility-attributable Hg deposition and decreases in MeHg fish tissue concentration. (See Reconsideration TSD, section 3.) The conclusion of this analysis reinforces our conclusion to focus our previous quantitative analysis on self-caught freshwater fish, not marine fish. This conclusion is based on the small contribution of the U.S. power plant Hg emissions to open ocean environments. High-end consumers eating over 200 grams per day of a cross-section of marine fish would have an Index of Daily Intake (IDI) value of about 0.05.<sup>4</sup> (See Reconsideration TSD, table 3.2.) Even if this high-end consumer exclusively ate marine fish with one of the highest utility-attributable MeHg concentration levels, the consumer would have an IDI value below one. (See Reconsideration TSD, table 3.3.) Given that the IDI values for the marine fish pathway are significantly less than one for moderate consumption rates and less than one even for

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<sup>4</sup> As described in the final Section 112(n) Revision Rule, the IDI is an index of exposure to Hg due solely to power plants. An IDI of 1 or greater indicates that an individual exposure to Hg from power plants is equal to or

the extreme combination of high consumption rate of marine fish with high MeHg levels, EPA maintains that marine fish are a pathway of small concern when evaluating the health impact of Hg emissions from U.S. power plants.

Aquaculture Fish Exposure Pathway. The petitioners assert that our qualitative treatment of utility-attributable Hg exposure due to U.S. aquaculture fish was not adequate. EPA acknowledged in the Effectiveness TSD that we lacked "sufficient information to characterize the impact of utility emissions on aquaculture" due to the unique nature of the aquaculture pathway and gaps in the available data. By this statement, we meant that we were not able to provide a quantitative estimate then. Nor can we do so now. As explained in section 5 of the Reconsideration TSD, the concentration of MeHg in aquaculture fish is dependent on the MeHg content of the fish products fed to aquaculture fish. Thus, it is the location and type of the fish caught to make fish feed, as opposed to the location of aquaculture farms, that is relevant to assessing the utility-attributable concentration of MeHg in aquaculture fish. Furthermore, many of the commonly consumed aquaculture fish species (e.g., catfish) tend to have lower

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exceeds the EPA reference dose (RfD) for Hg due solely to

concentrations of MeHg than many of the commonly consumed marine fish, and the total amount of aquaculture fish consumed in the U.S. is substantially less than the total amount of marine fish consumed in the U.S.

Having already concluded that an upper-bound estimate of utility-attributable Hg exposure due to marine fish is small and that the utility-attributable Hg exposure due to aquaculture is smaller than for marine fish, we reasonably conclude that the utility-attributable Hg exposure due to aquaculture fish is minimal.

Estuarine Fish Exposure. EPA believes that the state of the science currently does not support a national-scale quantitative analysis for this component of the exposure pathway. The studies cited as examples by the petitioners assumed a proportional relationship between declines in Hg deposition and declines in MeHg concentrations in estuarine fish. However, while such an assumption is supported for freshwater systems, it has not been endorsed by EPA or the scientific community as an appropriate method for characterizing the effects of Hg emissions reductions on MeHg estuarine fish concentrations. (See section 4.1 the Reconsideration TSD.)

EPA finds that the available data indicate that the utility-attributable exposure to Hg from estuarine fish and utility-attributable Hg exposure. (See 70 FR 16021.)

shellfish will likely be small relative to that from self-caught freshwater fish.

We estimate that the total exposure from the entire global Hg pool (i.e., all Hg sources, including, but, not limited to power plants,) associated with consumption of estuarine and near-coastal fish is roughly one third of the exposure from all marine species. This fraction includes near-coastal fish caught on the Pacific Coast and other areas not significantly affected by U.S. power plants. This estimate of total Hg exposure from estuarine species is thought to be an upper bound because it is based on total Hg concentrations in shellfish rather than MeHg concentrations, the Hg species that is toxicologically most significant. (See section 4 of the Reconsideration TSD.)

Of the Hg exposure associated with the consumption of estuarine and near-coastal fish, we estimate that the utility-attributable fraction is small. As described in section 4 of the Reconsideration TSD, utility deposition after CAIR, and even more so after CAMR, is small in the coastal areas, especially taking into account estuarine and near-coastal fisheries on the West Coast. Finally, populated coastal regions like the Chesapeake Bay and Baltimore Harbor (Mason and Lawrence, 1999) will receive

significant land-based (e.g., point source discharges) Hg inputs from wastewater effluents, municipal waste discharges, and historical Hg contamination that is slowly leaching from the watershed.

Although we are not able to provide a national-scale quantitative estimate of the utility-attributable Hg exposure from the consumption of estuarine and near-coastal species of fish and shellfish, for all of these reasons we conclude that this exposure pathway is small relative to the self-caught freshwater pathway.

Commercial Freshwater Fish Exposure Pathway. The petitioners raised concerns over the contribution of commercial freshwater fish to human Hg exposures. Specifically, the petitioners are concerned that the annual Great Lakes commercial freshwater fish harvest is 17 million pounds and EPA's air deposition modeling shows that relatively higher levels of utility-attributable Hg deposition, after CAIR and CAMR, occurs in the Great Lakes region.

Freshwater commercial fish are not a significant exposure pathway because a total consumption of 17 million pounds/year (lb/yr) is small when compared to recreational freshwater fish consumption of 377 million lb/yr (see section 6, Reconsideration TSD), or 22 times the Great

Lakes' commercial haul.<sup>5</sup> Further, even though utility-attributable Hg deposition is comparatively higher around the Great Lakes and the regional watershed surrounding the Great Lakes as defined by the USGS, in comparison with the rest of the U.S., it is still only a small percentage of Hg deposition from all sources. Within small HUC cataloging units, the average percent of total Hg deposition that is attributable to power plants in these areas is approximately 14 percent in 2001. By 2020 after CAIR, this will decrease to approximately 8 percent. After CAMR, utility-attributable deposition decreases further to approximately 7.5 percent. Thus, following the assumptions in MMaps, approximately 10 percent of the Hg in the fish found in this area is attributable to power plants.

As described above, the commercial freshwater harvest is small compared to recreational freshwater consumption. Additionally, only a portion of the commercial freshwater harvesting area is affected by comparatively higher concentrations of utility-attributable Hg deposition in  $\mu\text{g}/\text{m}^2$  (Lakes Michigan, Erie, and Huron), and the Great Lakes

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<sup>5</sup> The Great Lakes commercial haul is 0.2 percent of the total commercial haul. The marine haul represents the most significant fraction of the total haul and is discussed elsewhere. (See Reconsideration TSD, section 6.)

utility-attributable Hg deposition is not disproportionately higher than the immediately surroundings areas for recreational freshwater harvest. All of these factors lead us to believe that the commercial freshwater fish exposure pathway is still expected to be small relative to the national recreational freshwater exposure pathway.

Although we are not able to provide a national-scale quantitative estimate of the utility-attributable Hg exposure from the consumption of commercial freshwater species of fish, for all of the reasons discussed above, we conclude that exposure from this pathway is small.

b. Joint Consumption. In order to examine utility-attributable Hg exposure from total fish consumption quantitatively, it would be necessary to have information on the distribution of consumption of each type of fish - recreational freshwater, commercial freshwater, recreational saltwater, etc - as well as utility-attributable MeHg concentrations (either sufficiently accurate or upper-bound) for each type of fish. If we were able to identify the consumption of each type of fish as well as utility-attributable MeHg concentrations for each type of fish, then the IDI values from each type of fish could be calculated and added together to arrive at a total IDI value. Currently no such data exists. While we

are not able to develop a quantitative estimate, for the reasons described above and in the Reconsideration TSD, EPA maintains that self-caught freshwater fish consumption represents the most significant exposure pathway for the populations with the highest utility-attributable exposure.

At any given total fish consumption rate noted in our analyses, introducing aquaculture, marine, or estuarine fish into the diet of a self-caught freshwater fish consumer necessarily implies reducing consumption of self-caught freshwater fish (e.g., in order to maintain the same total fish consumption rate). As discussed in previous sections, because power plants contribute more Hg to freshwater fish species than to any other fish species, such substitution implies a lower IDI than is associated with consumption of self-caught freshwater fish alone, supporting the assertion that self-caught freshwater fish consumption represents the primary source of utility-attributable Hg exposure. Hence, for any given consumption rate, consumption of self-caught freshwater fish alone leads to a higher IDI than that of any other combination of fish, supporting our decision to focus our analysis on consumption of self-caught freshwater fish.

Table 6.4 of the Effectiveness TSD (US EPA 2005a)



shows an array of consumption values combined with percentiles of MeHg concentration in freshwater fish. Results for 2020 with CAIR indicate that estimated IDIs are all well below 1 for the first three consumption rates. Estimated IDIs are over one for 99th percentile recreational fishers and mean subsistence Native Americans only when all of the fish consumed has MeHg concentrations at the 99th percent level, a convergence of factors which is unlikely to occur. (See 70 FR 16024.) Estimated IDIs for the 95th (170 g/day) and 99th percentile (295 (g/day) subsistence Native American consumers are above one for lower percentile MeHg concentration fish. It is unlikely that these consumers would add significant amounts of non-self-caught freshwater fish to their diets over the course of a year, but rather would substitute fish, again supporting our focusing on the consumption of self-caught freshwater fish.

Further, we have no evidence that high-end consumers of self-caught fish also consume other types of fish. It is highly unlikely that subsistence individuals eating 170 g/day or 295 g/day of self caught freshwater fish would also consume significant quantities of marine fish. Even if we were to assume that these consumers do eat additional fish, the additional MeHg ingested by these consumers is believed

to be small as described above. For scenarios in which the IDI value is below one, it is unlikely that a consumer would add a sufficient amount of other fish (with lower utility-attributable MeHg concentrations than freshwater fish) to their freshwater fish diet to cause their IDI to exceed one.

#### 4. Utility Hotspots.

In the final Section 112(n) Revision Rule, we explained that we do not believe that there will be any utility hotspots after implementation of CAIR. In the final Section 112(n) Revision Rule, we defined a "utility hotspot" as a waterbody with utility-attributable MeHg levels in excess of the MeHg water quality criterion of 0.3 ppm (milligram per kilogram (mg/kg)). The methodology for calculating an exceedence of the MeHg water quality criterion is explained in the Effectiveness TSD, including the approach of looking at the highest MeHg concentration fish species and averaging across samples within that species.

The petitioners asserted that this definition of a "utility hotspot" differs from the definition in the NPR. The petitioners also asserted that EPA's definition of a utility hotspot differs from the common understanding of

that term and, therefore, obscures what the petitioners consider to be waterbodies with problematically high levels of MeHg. The petitioners further stated that the water quality criterion that EPA uses as the basis of its definition of a utility hotspot is defective in that it is based on assumptions about fish consumption habits that, the petitioners assert, are incorrect. The petitioners also stated that EPA's definition fails to consider that even when utility-attributable Hg emissions may not be the sole cause of problematically high MeHg levels in a waterbody, they may contribute to existing background levels so that total MeHg levels are problematic. In addition, the petitioners objected to EPA's position that utility hotspots should not be considered a problem because even if they do occur, EPA can address them in the future.

Today, we grant the petitions to reconsider on the issue of how to define a "utility hotspot" for purposes of the finding concerning regulation of Utility Units under CAA section 112. We also solicit comment on our analysis and conclusions concerning utility hotspots, in section VI.J of the final Section 112(n) Revision Rule (70 FR

16025).<sup>6</sup>

## 5. Cross-Cutting Issues

a. Regulation of Power Plant Hg Emissions Under CAA Section 112 Beyond CAIR. In two separate sections of the final Section 112(n) Revision Rule, EPA makes statements comparing the costs of further controlling Hg emissions from coal-fired power plants to the benefits that may accrue from those additional reductions. The statements appear in the context of “alternative arguments” that EPA provided in addition to its main argument that utility Hg emissions remaining after implementation of CAIR, and even more so after CAMR, are not reasonably anticipated to result in hazards to public health. (See 70 FR 16025 (discussing CAA section 112(f)), and 70 FR 16028 (discussing utility-attributable Hg emissions in the context of the global pool).)

The Reconsideration TSD contains additional information supporting EPA’s statements about the costs and benefits of further reductions of Hg emissions from Utility Units. As explained in the Reconsideration TSD, we evaluated the costs and benefits of regulating under

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<sup>6</sup> Petitioners note that EPA used different variations of the term “hotspot” in the final Section 112(n) Revision

section 112 beyond the level of CAIR using a screening analysis. In this regard, we presumed that the costs of regulating under section 112 are at least as great as the costs of regulating under CAMR. This assumption is a lower bound estimate of the potential costs of regulating under section 112. See Cost and Energy Impacts - Technical Support Document (Cost TSD). We further estimate the neurological benefits of the complete elimination of utility-attributable Hg after CAIR, which is an upper-bound estimate of the health benefits of regulating under section 112 beyond CAIR. As explained below, the lower bound cost of regulating under section 112 beyond the level of CAIR far exceeds the upper bound estimate of the benefits of such regulation. Therefore, regulating under section 112 beyond the level of CAIR would not be justified.

In particular, in the Reconsideration TSD, EPA performed an analysis of the upper bound of benefits of reduced intelligent quotient (IQ) decrements that could be obtained from eliminating exposure to U.S. power plant Hg emissions after CAIR. The analysis is a bounding analysis in the sense that the resulting health benefit estimate is almost certainly above the true health benefits of improved

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Rule. As part of this reconsideration process, we are

neurological performance associated with reducing Hg emissions from power plants.

The benefit calculation follows directly from the IDI values presented in table 6-4 of the Effectiveness TSD and the IDI values calculated for the marine pathway in the Reconsideration TSD. Using a dose-response relationship, we translate these IDI values into neurological improvements, using IQ points as a surrogate, were power plant Hg emissions to be eliminated. We then estimate the monetized value of these IQ point increments and discount these future monetized benefits to account for the ecosystem response time.

The total annualized cost of CAMR exceeds the upper bound estimate of the total health benefits from eliminating utility-attributable Hg exposure in 2020 after the implementation of CAIR. It should be noted, however, that CAMR does not eliminate all Hg emissions and that CAMR's cost estimate is based on a market-based approach, generally considered to be one of the lowest cost regulatory options.

Given that the total monetized costs of CAMR (which only partially eliminates remaining power plant Hg

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clarifying that we mean "utility hotspot."

emissions after CAIR) exceed the total monetized benefits of eliminating all remaining power plant Hg emissions, it is reasonable to conclude that the cost of requiring further reductions in U.S. power plant Hg emissions beyond CAIR would significantly outweigh the benefits associated with reductions in IQ decrements. We request comment on these analyses and calculations.

Moreover, as noted below, even if EPA were to undertake a similar analysis for non-Hg HAP emissions from coal-fired Utility Units, we would likely conclude that the benefits from additional regulation of the non-Hg HAP under section 112 were not justified by the costs. This statement is supported by the Utility Study Report to Congress (see <http://www.epa.gov/ttn/atw/combust/utiltox/utoxpg.html#TEC>) The health benefits of eliminating non-Hg HAP would likely reduce cancer cases by only a few per year. (See ES-5 high-end estimate of 1.3 cancer cases per year from HAP from inhalation from coal-fired power plants). The multi-pathway assessment increases this estimate somewhat (see, for example, the estimate that radionuclides may increase risk by a small amount. "The estimated cancer incidence in the U.S., due to emissions and dispersion of radionuclides

within 50 km of each utility, is estimated to be 0.3 cancer deaths/yr." ES22.) The non-cancer risks are small. ("The highest estimated long-term ambient HAP concentration was 10 times below the RfC.")

Using economic valuation of these health endpoints would not lead to significant monetized health benefits (see US EPA, 2000, Guidelines for Preparing Economic Analyses, EPA 240-R-00-003, for a discussion of the Agency's methodology for valuing reduced premature mortality and morbidity). The costs of controls to reduce non-Hg HAP would be far greater. (See 70 FR 25201 for a discussion of the cost of scrubbers.) We request comment on these analysis, calculations, and conclusions.

b. EPA's Selection of 2020 as the Date for Measuring the Remaining Emissions. Some petitioners argue that EPA should not have based its decisions regarding hazards to public health based on emissions as of 2020; rather, EPA should have looked at earlier dates that tracked those that would apply if a CAA section 112(d) standard were promulgated, followed by a residual risk review under CAA section 112(f).

For the reasons stated in the final Section 112(n) Revision Rule, EPA continues to believe that it must look



at what emissions from Utility Units will be after imposition of the requirements of the CAA, here CAIR, and independently CAMR, when determining whether it would be appropriate and necessary to regulate Utility Units under CAA section 112. Thus, it was reasonable for EPA to look at what Utility Unit Hg emissions were predicted to be after imposition of CAIR, and, independently, CAMR. Nonetheless, after the Section 112(n) Revision Rule was finalized, EPA modeled scenarios for the years 2010, 2015, and 2020 that included the CAIR, CAMR, and Clean Air Visibility Rule (CAVR) programs. For the reasons set forth below and in section 10 of the Reconsideration TSD, we believe this modeling supports our position that the expected Hg deposition with CAIR plus CAMR in 2015 is expected to be similar to the Hg deposition with CAIR plus CAMR in 2020. (See Modeling TSD, section V.B.) EPA takes comment on our tentative conclusion that the modeling shows that most of the reductions from CAIR will be achieved by 2010. Moreover, as we noted in the final Section 112(n) Revision Rule, CAIR targets the form of Hg of the greatest importance for local and regional deposition purposes (i.e., ionic or oxidized Hg, also known as reactive gaseous Hg (RGM)). (See 70 FR 16011, n.37). As noted in section

II of the Modeling TSD, Hg reductions associated with CAIR co-control result in a 62 percent reduction in RGM by 2020. However, because of the 2010 Phase I CAIR cap, most of these reductions in RGM are expected to occur by that time. Reductions related to CAMR, on the other hand, lead to proportionately more reductions in elemental Hg because of the reliance on Hg-specific controls for the 2018 cap.

First, CAVR indicates that States that opt into the CAIR trading program can satisfy CAVR without imposing further requirements on eligible utility sources. (See 70 FR 39137 and 40 CFR 51.308(e)(4).) Therefore, in the CAIR States, it is reasonable to presume that there would be no further reductions in utility Hg emissions from CAVR. Thus, in these States, it is reasonable to presume that the modeled CAIR/CAMR/CAVR reductions in Hg emissions are a fair representation of CAIR/CAMR Hg reductions.

Second, the most readily depositable Hg emissions are RGM emissions. As discussed in the Reconsideration TSD, the CAIR/CAMR/CAVR runs show a significant drop in modeled utility RGM emissions of almost 11 tons between 2001 (20.6 tons) and 2010 (9.7 tons) (primarily, as noted above, as a result of the co-control effected by the CAIR Phase I cap). Much smaller reductions occur between 2010 and 2015 (2.5

tons), and even smaller reductions between 2015 and 2020 (1.1 tons) (because of the large reductions in RGM emissions already effected and because of the increased reliance on the CAMR Hg-specific controls for the 2018 Phase II cap). Additionally, there is a similarly significant drop in the modeled utility-attributable Hg deposition from 2001 to 2010 (because of the large reductions in RGM), and very small changes in the utility-attributable Hg deposition from 2010 to 2015 and from 2015 to 2020 (because of the increased reliance on Hg-specific controls to meet the 2018 Phase II CAMR cap, which results in increased reductions in elemental Hg emissions - a form that does not readily deposit). Finally, we would expect that, in accordance with our assumptions in the MMaps model for purposes of this rulemaking, reductions in utility-attributable MeHg levels in fish tissue by 2010 and 2015 would parallel the reductions in utility-attributable Hg deposition by those years.

We ask for comment on EPA's position that the above-noted modeling results are a fair indicator or representation of the levels of utility-attributable Hg emissions and deposition that one could reasonably anticipate in the CAIR States in 2010 and 2015 for

CAIR/CAMR.

D. EPA's Decision Related to Nickel (Ni) Emissions from Oil-Fired Utility Units

In the final rule, EPA determined that it is neither appropriate nor necessary to regulate oil-fired units on the basis of nickel (Ni) emissions. In support of that finding, EPA explained that it was "not appropriate to regulate oil-fired Utility Units under CAA section 112 because we do not anticipate that the remaining level of utility Ni emissions will result in hazards to public health" (70 FR 16008).

Petitioners contend that EPA did not quantify the cancer risk resulting from the changed fuel mixes at oil-fired units, and did not establish that the changes in fuel mix upon which EPA relied in making its determination are permanent and enforceable.

We are granting reconsideration of the Agency's conclusion that it is not appropriate or necessary to regulate oil-fired units under CAA section 112 on the basis of Ni emissions. (See section IV.B.1 of the final Section 112(n) Revision Rule.) EPA is particularly interested in information related to the primary factors supporting its decision not to regulate Ni emissions from oil-fired

Utility Units under CAA section 112, including those it identified in the final Section 112(n) Revision Rule.

Those factors are: (1) the low level of risk presented by Ni emissions from oil-fired Utility Units as documented in the Report to Congress; (2) uncertainty regarding the health impacts of Ni emissions from oil-fired Utility Units; (3) the trend toward a reduction in the utilization of oil for electric power generation; and, (4) the fact that EPA is aware of no information regarding the health impacts of Ni emissions from the plants located in Hawaii that would justify regulating those units, much less the entire class of oil-fired Utility Units, under CAA section 112.

In summary, EPA is specifically seeking the following:

(1) Information indicating that the trend away from the use of oil in the generation of electricity will not be maintained.

(2) Information indicating that there are oil-fired power plants other than the 11 plants identified in the Report to Congress and considered in the December 2000 finding with estimated risk values greater than  $1 \times 10^{-6}$ .

(3) Specific information indicating that any of the

11 identified plants pose a greater risk than EPA has considered to date.

E. Documents Identified by Petitioners that are Dated After the Close of the Public Comment Period

Petitioners also identify certain documents that are dated after the close of the public comment period, which they believe are of central relevance to the final Section 112(n) Revision Rule. In particular, petitioners argue that the documents are relevant to EPA's determination that the levels of utility-attributable Hg remaining after the implementation of CAIR, and independently after CAMR, are not reasonably anticipated to result in hazards to public health. As explained above, EPA is granting reconsideration on section VI of the final Section 112(n) Revision Rule, which sets forth EPA's methodologies and its conclusion that after implementation of CAIR, and independently CAMR, utility-attributable Hg emissions are not reasonably anticipated to result in hazards to public health. During the public comment period for this notice, petitioners and any other commenters may submit any documents that they believe are relevant to section VI of the final Section 112(n) Revision Rule or to any other issue on which we are granting reconsideration today,

including the documents cited by petitioners. We will consider any such documents and any other new information at the same time we consider all significant comments received during the comment period on the reconsideration issues.

We do note, however, that one of the documents cited by petitioners is a study submitted by the Northeast States for Coordinated Air Use Management (NESCAUM) entitled, "Economic Valuation of Human Health Benefits of Controlling Mercury Emissions from U.S. Coal-fired Power Plants" (February 22, 2005; OAR-2002-0056-5749, OAR-2002-0056-5752). After issuance of the final Section 112(n) Revision Rule, EPA did address this study publicly in response to an inquiry from Senators Leahy, Jeffords, Boxer, and Kerry that we received. We set forth our position on that study in an April 5, 2005 reply to them and have included this response in the Reconsideration TSD (and in the docket). Please refer to that discussion in the Reconsideration TSD in formulating any comments on the issues relevant to this reconsideration notice.

**V. Clarification and Correction of Statements Made in Final Section 112(n) Revision Rule**

In addition to commencing a reconsideration proceeding

on the above issues, EPA by this notice is also clarifying or correcting some statements made in the final Section 112(n) Revision Rule. The clarifications and corrections can be categorized generally as follows: (a) clarification of confusing explanatory text and (b) correction of incorrect factual statements. Below, we identify each clarification or correction to the explanatory text at 70 FR 15994 and provide a brief explanation for the revised language.

(1) On page 16024, column 3, in the last full paragraph, after the second sentence, change the first sentence to read as follows: "Applying the risk factors identified above to utility Hg emissions in the 112(n)(1)(A) context, EPA concludes that utility Hg emissions remaining after implementation of CAIR, and even more so after CAMR, are not reasonably anticipated to result in hazards to public health."

We are revising this sentence because the original sentence ("...unacceptable hazards to public health...") in the preamble to the final Section 112(n) Revision Rule is inconsistent with the wording of CAA section 112(n)(1)(A), which is the standard that EPA applies when making its final decision.



(2) On page 16022 in column 1, last paragraph, and in column 3, first paragraph, and on page 16024 in column 2, second full paragraph, EPA indicates that data from a study by the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) on fish consumption rates by Ojibwa Great Lakes tribes had not been peer reviewed. However, we have subsequently learned that this is a peer-reviewed study. We, nevertheless, continue to believe that there are reasons for not using the Ojibwa study.

Two reasons for not using the Ojibwa study not related to the peer review status of the study were cited in the final rule. Specifically, commenters did not include information on annual average consumption rates or the percentage of those fish consumers that are women of childbearing age and, based on EPA's information, the Tribes do not reside in an area that appears to be significantly impacted by utility Hg emissions. Thus, despite having extremely high consumption rates, there are no data in the record that suggest that members of the Tribe would be exposed above the RfD (above an IDI value of 1) as a result of utility-attributable emissions. (See 70 FR 16012 and 70 FR 16021 for a discussion of the RfD and the IDI, respectively.) Moreover, EPA notes that (a) the

study does not clearly identify the population percentile that the data represent (i.e., what fraction of fishers is represented by the various consumption rates given), and without this information, we can not know whether the information is relevant for a 90<sup>th</sup> percentile, 95<sup>th</sup> percentile, 99<sup>th</sup> percentile, or max value; (b) the study covers individuals not residing in the most impacted portions of our study area, therefore, using a more generalized and broadly representative estimate such as EPA's recommended subsistence fisher rate, is a better approach; and (c) the data are seasonal, therefore, one cannot necessarily translate the date into annual-averaged values (i.e., what is consumption during periods other than the high-consuming fishing seasons).

In addition, EPA, in the Effectiveness TSD, did evaluate a 99<sup>th</sup> percentile subsistence fisher consumption rate that was 295 grams per day (g/day) (this value was based on the EPA mean and a 95<sup>th</sup> percentile subsistence fisher consumption rate of 60 and 170 g/day, respectively; we fitted a log-normal distribution and took the 99<sup>th</sup> percentile from this). This 295 g/day value is at the high end of the values provided in the Ojibwa study; therefore, EPA did use a consumption value that was at the high end of

the values presented in the GLIFWC study.

## VI. Statutory and Executive Order (EO) Reviews

### A. EO 12866: Regulatory Planning and Review

Under EO 12866 (58 FR 51735; October 4, 1993), EPA 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 EO. The EO defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlement, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the

principles set forth in the EO.

Pursuant to the terms of EO 12866, OMB has notified us that it considers this a "significant regulatory action" within the meaning of the EO. We have submitted this reconsideration notice to OMB for review. However, EPA determined that the final Section 112(n) Revision Rule would not have a significant economic impact. Similarly, today's notice of reconsideration does not have a significant economic impact. Changes made in response to OMB suggestions or recommendations will be documented in the public record. All written comments from OMB to EPA and any written EPA response to any of those comments are included in the docket listed at the beginning of this notice under ADDRESSES.

B. Paperwork Reduction Act

The final Section 112(n) Revision Rule did not contain any information collection requirements and there was not subject to the Paperwork Reduction Act (44 U.S.C. 3501 et seq.) (PRA). Similarly, this action does not contain any information collection requirements and, therefore, is not subject to the PRA.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an

agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

We certify that this notice of reconsideration will not have a significant economic impact on a substantial number of small entities because it imposes no regulatory requirements. We continue to be interested in the potential impacts of the Section 112(n) Revision Rule on

small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) (UMRA), establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under UMRA section 202, 2 U.S.C. 1532, EPA generally must prepare a written statement, including a cost-benefit analysis, for any proposed or final rule that "includes any Federal mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more...in any one year." A "Federal mandate" is defined under section 421(6), 2 U.S.C. 658(6), to include a "Federal intergovernmental mandate" and a "Federal private sector mandate." A "Federal intergovernmental mandate," in turn, is defined to include a regulation that "would impose an enforceable duty upon State, local, or Tribal governments," section 421(5)(A)(i), 2 U.S.C. 658(5)(A)(i), except for, among other things, a duty that is "a condition of Federal assistance," section 421(5)(A)(i)(I). A "Federal private sector mandate" includes a regulation that

"would impose an enforceable duty upon the private sector," with certain exceptions, section 421(7)(A), 2 U.S.C. 658(7)(A).

We determined that the final Section 112(n) Revision Rule did not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, or Tribal governments, in the aggregate, or the private sector in any 1 year. Thus, the final Section 112(n) Revision Rule was not subject to the requirements of UMRA sections 202 and 205. In addition, we determined that the final Section 112(n) Revision Rule contained no regulatory requirements that might significantly or uniquely affect small governments because it contained no regulatory requirements that apply to such governments or imposed obligations upon them. Therefore, the final Section 112(n) Revision Rule was not subject to the requirements of UMRA section 203. Today's notice of reconsideration changes none of the regulatory requirements of the final Section 112(n) Revision Rule and, thus, is also not subject to the requirements of UMRA.

E. EO 13132: Federalism

EO 13132 (64 FR 43255; August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and

timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the EO to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final Section 112(n) Revision Rule did not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in EO 13132. In addition, today's notice does not impose any additional requirements. Thus, E.O. 13132 did not apply to the final Section 112(n) Revision Rule.

For the same reasons, today's notice of reconsideration does not have federalism implications. Thus, EO 13132 does not apply to today's notice of reconsideration.

F. EO 13175: Consultation and Coordination With Indian Tribal Governments



EO 13175 (65 FR 67249; November 6, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

"Policies that have tribal implications" are defined in the EO to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final Section 112(n) Revision Rule did not have Tribal implications as defined by EO 13175. It did not have a substantial direct effect on one or more Indian Tribes, in that it was a determination not to regulate power plants under CAA section 112, and, therefore, imposed no burden on tribes. Furthermore, the final Section 112(n) Revision Rule did not affect the relationship or distribution of power and responsibilities between the Federal government and Indian Tribes. The CAA and the Tribal Authority Rule establish the relationship of the Federal government and Tribes in implementing the CAA. Because the final Section 112(n) Revision Rule did not have Tribal implications, EO 13175 did not apply. Furthermore,

this notice of reconsideration does not impose any additional requirements and, thus, is also not subject to EO 13175.

Although we have determined that the final Section 112(n) Revision Rule and this notice are not subject to EO 13175, we recognize that Tribes have expressed concern about the rule's impact upon human health and the environment in Indian Country and the scope of EPA's consultation with Tribes on these issues. In recognition of these concerns and EPA's trust responsibility to Tribes, and because this reconsideration includes additional scientific and technical analysis, such as on fish consumption levels by Tribes and the extent of the impact of utility-attributable Hg on fish tissue, EPA is considering outreach strategies to further explain our findings to Tribes beyond this notification and the requirements of EO 13175.

G. EO 13045: Protection of Children from Environmental Health and Safety Risks

EO 13045 (62 FR 19885; April 23, 1997) applies to any rule that: (1) is determined to be "economically significant," as defined under EO 12866, and (2) concerns an environmental health or safety risk that EPA has reason

to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

The final Section 112(n) Revision Rule was not subject to EO 13045 because it was not an economically significant regulatory action as defined by EO 12866. In addition, EPA interprets EO 13045 as applying only to those regulatory actions that are based on health and safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulations. The final Section 112(n) Revision Rule was not subject to EO 13045 because it did not include regulatory requirements based on health or safety risks. This notice of reconsideration imposes no requirements and, thus, also is not subject to EO 13045.

Nonetheless, in making its determination as to whether it is "appropriate and necessary" to regulate utility units under CAA section 112, EPA considered the effects of utility HAP emissions on both the general population and sensitive subpopulations, including children.

H. EO 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

EO 13211 (66 FR 28355; May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Regulatory Affairs, OMB, a Statement of Energy Effects for certain actions identified as "significant energy actions." Section 4(b) of EO 13211 defines "significant energy actions" as "any action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of final rulemaking, and notices of final rulemaking: (1)(i) That is a significant regulatory action under EO 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a "significant energy action." Although the final Section 112(n) Revision Rule was determined to be a significant regulatory action under EO 12866, it will not have a significant adverse effect on the supply, distribution, or use of energy. Further, we conclude that today's notice of reconsideration is not

likely to have any adverse energy effects.

I. National Technology Transfer and Advancement Act  
(NTTAA)

Section 12(d) of the NTTAA of 1995 (Public Law No. 104-113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (e.g., material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires EPA to provide Congress, through the OMB, with explanations when EPA decides not to use available and applicable voluntary consensus standards.

Revision of December 2000 Regulatory Finding on the  
Emissions of Hazardous Air Pollutants From Electric Utility  
Steam Generating Units and the Removal of Coal- and Oil-  
Fired Electric Utility Steam Generating Units from the  
Section 112(c) List: Reconsideration

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The final Section 112(n) Revision Rule did not involve technical standards and, therefore, the NTTAA did not apply. Similarly, this notice of reconsideration does not involve technical standards and, therefore, the NTTAA does not apply.

Dated:

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Stephen L. Johnson

Administrator