

**RESPONSES TO SIGNIFICANT PUBLIC COMMENTS CONCERNING THE
PROPOSED REVISION OF THE DECEMBER 2000 APPROPRIATE AND
NECESSARY FINDING AND THE PROPOSED REMOVAL OF UTILITY UNITS
FROM THE SECTION 112(c) LIST**

Received in response to:

**Proposed National Emission Standards for Hazardous Air Pollutants; and, in
the Alternative, Proposed Standards of Performance for New and Existing
Stationary Sources: Electric Utility Steam Generating Units
(69 FR 4652; January 30, 2004)**

**Supplemental Notice for the Proposed National Emission Standards for
Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of
Performance for New and Existing Stationary Sources: Electric Utility Steam
Generating Units
(69 FR 12398; March 16, 2004)**

**Proposed National Emission Standards for Hazardous Air Pollutants; and, in
the Alternative, Proposed Standards of Performance for New and Existing
Stationary Sources, Electric Utility Steam Generating Units: Notice of Data
Availability
(69 FR 69864; December 1, 2004)**

Docket Number OAR-2002-0056

**US Environmental Protection Agency
Emissions Standards Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711**

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1.0 INTRODUCTION AND BACKGROUND

In January, 2004, EPA proposed three alternative regulatory approaches for addressing hazardous air pollutants (HAP) from electric utility steam generating units (utilities or Utility Units). (69 FR 4652; January 30, 2004). One of those approaches involved revising the December 2000 finding that it is appropriate and necessary to regulate coal- and oil-fired Utility Units under section 112 of the Clean Air Act (CAA or the Act), removing coal- and oil-fired Utility Units from the section 112(c) list, and issuing standards of performance for new and existing coal-fired Utility Units that emit mercury (Hg) and new and existing oil-fired Utility Units that emit nickel (Ni). Today, we are finalizing this regulatory approach, except we are not taking final action to issue proposed standards of performance for nickel.

We are finalizing this regulatory approach in two separate rulemaking actions. The first rule revises the December 2000 regulatory finding and removes coal- and oil-fired utilities from the section 112(c) list, and is 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.” The second rule establishes standards of performance for mercury from new and existing coal-fired Utility Units. That rule is called “Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units,” and is commonly referred to as the Clean Air Mercury Rule (CAMR). Some of the comments addressed in this document relate to CAMR, and we therefore refer the reader to the response to comments document in support of that rule. Some comments refer to CAMR because EPA proposed the revision of the December 2000 finding and the proposed standards of performance in the same proposed rule.

This response to comments document responds to significant comments received on the issues addressed in the final rule revising the December 2000 Finding. In January 2004, EPA specifically proposed that it should not have concluded that it was appropriate to regulate non-Hg HAP from coal-fired utilities and non-Ni HAP from oil-fired utilities. EPA explained that the record before the Agency in December 2000 did not support the conclusion that non-Hg and non-Ni HAP from Utility Units cause hazards to public health that warrant regulation. EPA further proposed that it erred in December 2000 in finding that it was necessary to regulate Hg from coal-fired units and Ni from oil-fired utility units under section 112. EPA proposed that the December 2000 necessary finding lacked foundation because CAA section 111 constituted a viable statutory mechanism that, if implemented, would adequately address the hazards to public health associated with emissions of Hg and Ni. EPA also proposed removing coal- and oil-fired utility units from the section 112(c) list, noting that it had erred in making the December 2000 finding and therefore Utility Units should never have been included on the section 112(c) list. EPA requested comment on its proposed revision of the December 2000 Finding and its proposed removal of coal- and oil-fired utility units from the section 112(c) list..

The purpose of this document is to address the significant public comments concerning EPA’s proposed revision of the December 2000 finding and removal of coal- and oil-fired Utility

Units from the section 112(c) list, that we received in response to: (1) the notice of proposed rulemaking (NPR), “Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units” (Clean Air Mercury Rule; CAMR) (69 FR 4652; January 30, 2004); (2) the supplemental notice of proposed rulemaking (SNPR), “Supplemental Notice for the Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units” (69 FR 12398; March 16, 2004); and (3) the notice of data availability (NODA), “Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources, Electric Utility Steam Generating Units: Notice of Data Availability” (69 FR 69864; December 1, 2004). The final rule contains an extensive discussion of EPA’s interpretation of section 112(n)(1)(A) and the bases for revising the December 2000 action and removing coal- and oil-fired Utility Units from the section 112(c) list. The final rule also contains responses to several comments.

We provided an opportunity for written and oral public comment on the proposed rulemaking, and that opportunity was announced with the NPR, the SNPR, and the NODA. Concurrent public hearings on the NPR were held on February 25 and 26, 2004, in Chicago, IL, Philadelphia, PA, and Research Triangle Park, NC. A public hearing on the SNPR was held on March 31, 2004, in Denver, CO. No public hearing was held on the NODA. The period for public comment on the NPR closed on March 30, 2004, but was extended to April 30, 2004, upon publication of the SNPR. Following numerous requests for an extension, the public comment period was reopened on May 1, 2004, and extended to June 29, 2004. The public comment period on the NODA closed on January 3, 2005.

In response to EPA’s three proposed alternative regulatory approaches, EPA received approximately 500,000 comments on the proposed rulemaking, including numerous mass-mailings and approximately 5,000 “unique” comments. A listing of the commenters is provided in Appendix A to the Response to Comments in support of CAMR. A complete set of the public comments received and the public hearing transcripts is available as part of eDocket OAR-2002-0056. This docket can be accessed at www.epa.gov/edocket or through the U.S. EPA Docket Center, 1301 Constitution Avenue, NW, Washington, D.C., 20004 in the Public Reading Room, Room B102, EPA West Building, 8:30 a.m. through 4:30 p.m., Monday through Friday.

A summary of the significant public comments received concerning the proposed revision of the December 2000 appropriate and necessary finding and the removal of coal- and oil-fired Utility Units from the section 112(c) list, and EPA’s responses is provided below. In this document, EPA has followed the following criteria:

- Detailed responses are provided only for those comments deemed to be significant. Some responses to significant comments are provided in the preamble to the Final Rule Revising the December 2000 Finding. Other comments may be summarized and general responses provided.

- Comments determined to be “late public comments” on the NODA (i.e., received after the close of the public comment period for the NODA) are neither summarized nor are responses provided. Comments received between June 30, 2004 (following the June 29, 2004, end of the public comment period on the NPR and SNPR) and November 30, 2004 (prior to the December 1, 2004, opening of the public comment period on the NODA) were considered in the decisions on the final rule because the comment period was reopened in December 2004, if only on a limited number of issues. Responses are not provided to comments received after the close of the public comment period on the NODA on January 3, 2005, because there was insufficient time for adequate analyses of these comments.
- Comments received on the proposed CAA section 112(d) maximum available control technology (MACT) approach and on the proposed approach to institute a cap-and-trade rulemaking under the authority of CAA section 112(n)(1)(A) have neither been summarized nor responded to in this document. We have taken this approach because these two proposed regulatory approaches, as noted above, were not selected for promulgation.¹

¹ Some commenters on section 112(d) discussed alternative measures of what the proper emissions standards would be under a MACT, or criticized EPA’s methodology for estimating those standards. To the extent these commenters have stated, or believe, that EPA should have performed additional MACT calculations, and compared these revised calculation with the emissions reductions achieved under CAA sections 110(a)(2)(D) and 111 before reversing its December 2000 section 112(n)(1)(A) determination or promulgating CAMR, EPA disagrees. As described in the preamble, EPA does not believe that Congress required the Agency to base its “appropriate and necessary” determination on a comparison with MACT or other section 112 requirements, because the determination would necessarily precede any actual regulation under section 112, and hence any assumption of what would be required under section 112(d) would be premature and speculative.

2.0 EPA'S PROPOSED REVISION OF THE DECEMBER 2000 FINDING

A. Proposed Revision of Appropriate and Necessary Finding: General Comments.

Comment:

Many commenters (including States and public interest groups) stated that EPA has misconstrued CAA section 112(n), and that section 112 is the only legal authority for regulating HAP. The commenters also assert that section 111 will not adequately address the public health threats posed by utility units, and therefore regulation under section 112 is necessary. (OAR-2002-0056-2108, -2330, -2332, -2823, -2575, -2823, -2880, -2871, -2878, -2889, -2920, -2924, 3393, -3394,-3459). According to these commenters,

- Commenter OAR-2002-0056-2575 stated that EPA's position concerning the proposed revision of the December 2000 finding is unreasonable and inconsistent with the language of section 112(n)(1)(A). Section 112(n)(1)(A) clearly states that EPA must impose all other CAA requirements applicable to utility units before carrying out the Utility RTC. EPA's position that it can now regulate Hg emissions under section 111 (6 years after completing the Utility RTC) directly contradicts the "after imposition of this chapter" language in section 112(n)(1)(A). Section 112(n) requires EPA to regulate utility units "under this section" (i.e., section 112) if the Administrator finds it necessary and appropriate to do so based on the impacts on public health (as evidenced in the study) and not on the availability of other sections of the CAA to regulate utility units.
- Commenters disputed EPA's conclusion that HAP could be regulated under CAA sections 111(b) and (d) and that a finding of "necessary" is not needed. The EPA's interpretation (that although it is still "appropriate" to regulate Hg emissions, it is not "necessary" to regulate under CAA section 112 because section 111 would adequately address Hg and Ni emissions) is unreasonable and inconsistent with the plain language of section 112(n)(1)(A) and the legislative history. The process outlined in section 112(n)(1) did not supplant sections 112(c) and (d) as the statutory mechanism for the regulation of electric utility generating units, but rather required EPA to make a threshold determination that it is "appropriate and necessary" to regulate electric utility generating units before proceeding with any regulation of this source category. Section 112(n)(1) states "'the Administrator shall regulate [these units] under this section [112] if the Administrator finds such regulation is appropriate and necessary after considering the results of the study...". If, after following this preliminary process, EPA made the requisite "appropriate and necessary" finding, then the Administrator is required to regulate electric utility generating units in accordance with section 112, which requires imposition of a MACT standard. After conducting the health risk study under section 112(n), EPA determined that regulation of HAP emissions from coal and oil-fired electric utility steam generating units under section 112 was appropriate and necessary and added these units to the list of source

categories under section 112(c)). (OAR-2002-0056-2823) and public interest groups (OAR-2002-0056-2173, 2575, 2823, 2878, 2920)

- EPA misconstrued CAA section 112(n)(1)(A) to provide that HAP emissions from power plants need not be regulated under section 112 if another section of the CAA may be used in the future to regulate HAP emissions. Section 112(n)(1)(A) recognizes that power plants were subject to requirements for non-HAP pollutants (e.g., acid rain, ozone, and PM-10) which other sources were not. Congress required that EPA study whether regulation of HAP emissions from power plants was necessary in light of the emission reductions achieved under this requirements and to regulate power plants if it was appropriate and necessary to do so after the implementation of these other requirements. Under EPA's interpretation of section 112(n), Congress required EPA to "scour" the CAA to determine if there was any other regulatory authority besides section 112. If Congress had intended EPA to regulate under section 111 or even consider it, Congress would have provided so in the legislation. Commenter OAR-2002-0056-2823 adds that EPA's reliance on Congressman Oxley's statement is misplaced because statements of individual legislators are entitled to little or no weight in construing a statute (See National Small Shipments Traffic Conf., Inc. v. Civil Aeronautics Board, 618 F.2d 819, 828, D.C. Cir 1980). Regarding the Oxley statement, commenter OAR-2002-0056-4139 adds that it is difficult to conceive that Congress meant EPA to consider regulations not yet conceived or proposed such as 111(d) when reporting to Congress on the study of HAP from utility units. (OAR-2002-0056-2823, -2173, 2575, 2823, 2878, 2920)
- Commenter OAR-2002-0056-2359 also disagreed with EPA's assertion that section 111 adequately address environmental effects since EPA said that it was unable to quantify the contribution of emissions to the health effects of surrounding populations. If it can no determine how much Hg in fish is contributed by coal-fired utility units, then the environmental impacts can not be quantified. Two commenters (OAR-2002-0056-2920, -3459) stated that EPA's claim (section 112 standards are not necessary) is arbitrary and capricious because: (1) EPA fails to explain why the application of less protective requirements under section 111 would make section 112 standards unnecessary; EPA does not quantify the benefits of Hg control or describe why section 111 is adequate, and (2) the rulemaking record disproves EPA's belief that section 111 will control Hg pollution adequately, when compared to section 112 regulation. The proposed section 111 scheme results in far weaker controls than a legitimate MACT standard. Regulation under section 111 is plainly not an adequate replacement for section 112 regulation, considering the statutory structure of the CAA and the number of ways in which section 112 is more comprehensive and stringent.
- Commenter OAR-2002-0056-2575 indicated that EPA mischaracterized its December 2000 regulatory finding. EPA argues that the finding was over-broad and the record supports only public health impacts of Hg. The clear language of section 112 clearly states that the EPA can list sources of HAP based on human health or environmental effects;

there is no preference for one category of effects over the other. A finding of adverse health effects does not mean that the regulation of a certain HAP is not necessary under section 112 as EPA now claims. The public health and environmental impacts of Hg are well established and have been acknowledged by EPA in several documents. It is disingenuous for EPA to now assert that the record only established adverse human health effects as a justification to regulate under CAA section 111. Further, EPA never identifies the basis for its conclusion that the record for its regulatory finding was deficient with regard to environmental hazard. The regulatory finding clearly states its conclusions on the environmental effects of methylmercury (MeHg) on fish and wildlife. EPA did not refute the validity of this conclusion or identify any flaws in the record. Therefore, EPA has no rational basis for overturning the December 2000 finding and in turn, no basis to regulate under section 111 instead of 112.

- Many states opposed EPA's proposed delisting. According to Maryland, EPA asserted a plausible link between methylmercury concentrations in fish and mercury emissions from power plants in the finding, and there is no data severing that link. Pennsylvania states that the adverse effects of exposure to mercury emissions are not rebuttable and EPA failed to support its proposed revision with any scientific evidence that mercury emissions from power plants are any less dangerous than they were in December 2000. Absent new and compelling evidence, EPA is not statutorily authorized to revise with regulatory determination. New Hampshire adds since the Utility RTC, other researchers have found plausible links between the mercury concentration in the blood of an avian indicator species (loons) and in their eggs. Michigan cites EPA's preamble statement that the study (Utility RTC) "reveals that there are no confirmed hazards to public health associated with emissions of such HAPs. We do not believe that it is appropriate to regulate coal and oil-fired utility units based on HAP emissions with no confirmed health effects" and that the conclusion reached in December 2000 could not have been made based on the information on record prior to 2000. EPA's conclusions appear to be drawn apart from the conclusions in the finding and the scientific evidence referenced in the finding. There is no question on whether it is appropriate or necessary to regulate these sources; EPA must regulate mercury emissions under section 112(d). New York states that EPA has no authority to delist utility units from the section 112(c) source category list absent compliance with the criteria in section 112(c)(9)(B)(ii). The initial listing of utility units was not a mistake. The fact that EPA reinterpreted its CAA authority without performing any additional technical analyses to counter the previous finding of "appropriate and necessary" makes the rescission unlawful. Since EPA can not meet this criteria, it must establish appropriate MACT standards under section 112(d). 3552 Missouri contends that the CAA does not seem to allow removing a source category from one section and not from another. Section 112(c)(1) requires that to the extent practicable, the categories and subcategories listed under section 112(c) to be consistent with the list of sources listed under section 111. This implies that when a category is listed under section 111, it is also listed under 112. Section 112(d) requires MACT standards for sources listed under section 112(c). One State commenter (OAR-2002-0056-2436) said the proposal to rescind the

December 2000 regulatory determination does not address the scientific conclusions reached in the December 2000 determination. EPA must address the scientifically based conclusions relating to localized health and environmental impacts of a Hg cap and trade program prior to rescinding the determination.

- Four commenters (OAR-2002-0056-2359, -2823, -2920, -3459) contended that even if the regulation of HAP were available under 111(d), EPA's proposal under section 111(d) is not an adequate substitute for section 112 regulation. EPA acted arbitrarily and capriciously in implying that section 111 regulation, including a cap and trade approach, is adequate to address the harmful regional and local health and ecological impacts of HAP emissions from power plants (2823).
- Commenter [OAR-2002-0056-5455] disputes the claims of other commenters that "were EPA to regulate under section 112(d) all HAP emissions from utility boilers based on a determination that Hg emissions pose a hazard to public health, EPA would be forced to impose emissions standards that would supersede other provisions in the CAA, impermissibly divesting them of effect." In other words, the other commenters argue, regulation under CAA section 112(d) "would subsume other provisions of the CAA, such as Title IV." In short, the commenter believes that EPA and the States possess broad authority to regulate SO₂ (and NO_x and PM) emissions more stringently than is required by Title IV. Given that broad authority, commenter OAR-2002-0056-5455 argues that it is erroneous to claim that EPA lacks authority to regulate HAP from power plants on the ground that this action would effectively require additional SO₂ reductions. The commenter reads CAA section 112 as a requirement to ensure utility HAP reductions through adoption of section 112(d) MACT standards fits comfortably within the existing statutory structure in which Titles I and IV act together to require reductions in all of the regulated air pollutants emitted by power plants. The commenter believes that section 112(d) requires that EPA adopt MACT standards for all power plant HAP emissions, and that numerous other CAA provisions require power plants to control their emissions, notwithstanding the simultaneous Title IV system of regulation.

Response:

EPA disagrees with the commenters on several levels, including on the interpretation of section 112(n)(1)(A) and the application of that interpretation to the record before the Agency. Congress enacted CAA section 112(n)(1)(A) specifically to address Utility Units. Section 112(n)(1)(A) requires EPA to study the hazards to public health "reasonably anticipated" to occur as a result of utility HAP emissions "after imposition of the requirements of th[e] Act." Section 112(n)(1)(A) further provides that EPA shall regulate Utility Units under section 112 of the Act, if it finds that it is both "appropriate" and "necessary" to do so considering, among other things, the results of the Utility Study. Congress required that the study be completed by November 15, 1993, but set no deadline for the appropriate and necessary determination.

As explained in the final rule, section 112(n)(1)(A) itself contains no clear standard to govern EPA's analysis and determination of whether it is "appropriate and necessary" to regulate utilities under section 112. The first sentence of the subparagraph describes the scope of the study EPA is to conduct. The sentence on EPA's "appropriate and necessary" finding then says that the Agency must make that finding after considering the results of the study. But Congress did not supply an actual definition or test for determining whether regulation of utilities under section 112 is "appropriate and necessary." Thus, EPA must supply a reasonable interpretation of those terms to fill the gap.

Congress' direction on the study provides the only guidance in section 112(n)(1)(A) about the substance of EPA's appropriate and necessary inquiry. Because the statute provides no other explicit guidance, EPA has chosen to extrapolate from Congress' description of the study to adopt a reasonable interpretation of the phrase "appropriate and necessary." The final rule provides an extensive discussion of EPA's interpretation of section 112(n)(1)(A). As is relevant here, however, EPA disagrees with commenters' assertion that EPA cannot regulate Hg emissions from coal-fired utility units under section 111 because such action contradicts the phrase "after imposition of the requirements of the Act" in section 112(n)(1)(A).

As explained in the final rule, EPA reasonably interprets the phrase "imposition of the requirements of th[e] Act" to include not only those requirements already imposed and in effect, but also those requirements that EPA reasonably anticipates will be implemented and will result in reductions of utility HAP emissions. In the study, Congress asked EPA to identify the utility HAP emissions that would remain "after imposition of the requirements of th[e] Act" and identify the hazards to public health reasonably anticipated to occur as the result of such emissions. Further, as explained in the final rule, EPA interprets section 112(n)(1) to provide that the appropriate and necessary finding is to be made by reference to the utility HAP emissions that remain "after imposition of the requirements of th[e] Act."

EPA disagrees that the phrase "after imposition of the requirements of th[e] Act," means that EPA must propose or promulgate all requirements applicable to Utility Units prior to the Utility Study. Congress required that the Utility Study be completed in November 1993, which is two years prior to commencement of the first phase of Title IV, which is a significant regulatory program that impacts utility emissions. Given the timing for completion of the study and the fact that Congress added Title IV in 1990, Congress could not have reasonably intended for EPA to limit its consideration of requirements that either had been proposed or promulgated by that date. EPA's interpretation of the phrase "after imposition of the requirements of th[e] Act" is reasonable. See generally 136 Cong. Rec. H12911, 12934 (daily ed. Oct. 26, 1990) (statement of Congressman Oxley) (recognizing that the control of other pollutants under other requirements of the Act, including the Acid Rain Program in Title IV, would result in utility HAP reductions). In addition, because Congress did not set a deadline for making the appropriate and necessary determination, EPA can reasonably consider new information obtained after the study, particularly where that new information affects the level of emissions that would remain following "imposition of the requirements of th[e] Act," which, as noted above, is our guide for assessing

whether it is appropriate and necessary to regulate utilities under section 112.

EPA concludes in the final rule that it erred in December 2000 in finding that it was appropriate to regulate coal-fired Utility Units on the basis of Hg emissions. EPA specifically failed to fully account for the Hg emissions remaining after “imposition of the requirements of th[e] Act.” That failure resulted in an overestimate of the remaining utility Hg emissions. Had we properly considered the Hg reductions remaining “after imposition of the requirements of th[e] Act” in December 2000, we might well have (and, as discussed in the final rule, now believe should have) reached a different conclusion as to whether it was “appropriate” to regulate coal-fired units on the basis of Hg emissions. EPA further concludes in the final rule that recent information confirms that it is not appropriate to regulate coal-fired Utility Units under section 112 on the basis of Hg emissions, because the emissions remaining after implementation of CAA section 110(a)(2)(D), and independently section 111, will result in levels of Hg emissions that are not reasonably anticipated to cause hazards to public health. EPA recently signed rules implementing these two statutory provisions and those regulations will obtain important utility Hg reductions.

In any event, even if Congress contemplated a more limited set of requirements when it referred to the “imposition of the requirements of th[e] Act,” EPA concludes that it is still not necessary to regulate Hg emissions from coal-fired utility units under section 112 because section 111 constitutes a viable statutory authority that will effectively address the Hg emissions remaining “after imposition of the requirements of th[e] Act. We interpret the “necessary” prong of the section 112(n)(1)(A) inquiry to require EPA to examine whether there are any other available authorities under the CAA that, if implemented, would effectively address the remaining Hg emissions from coal-fired Utility Units. See Final Rule Revising December 2000 Finding (explaining why regulation under section 110(a)(2)(D) and 111 would effectively address the Hg utility emissions remaining after imposition of the requirements of the Act.). We disagree with those commenters that suggest that the appropriate and necessary inquiries are solely health-based inquiries. Congress provided EPA discretion in section 112(n)(1)(A) to determine whether regulation of Utility Units under section 112 was both “appropriate” and “necessary.” Our interpretation gives effect to both terms, which commenters’ arguments do not. Further, EPA’s interpretation of these terms, as set forth in detail in the final rule, is a permissible construction. Further, there is no legislative history indicating to the contrary.

Finally, contrary to commenters’ assertions, we conclude, based on additional modeling and analyses of the data, that Hg emissions remaining after implementation of CAIR, and independently CAMR, are not reasonably anticipated to cause hazards to public health. EPA’s analysis in this regard is set forth in detail in the final rule. As for environmental effects, EPA interprets section 112(n)(1)(A) as not requiring EPA to study or base its appropriate and necessary determination on environmental effects that are unrelated to public health. Nevertheless, as EPA explains in the final rule, EPA believes that it can consider environmental effects that are unrelated to public health, such as the effects of methylmercury on loons and racoons and other wildlife, in determining whether it is appropriate to regulate utilities under

section 112, but those non public-health considerations cannot alone or in combination with one another justify regulation of Utility Units under section 112 where, as here, EPA has concluded that hazards to public health are not reasonably anticipated to result from utility HAP emissions remaining after imposition of the requirements of the Act. Because EPA has concluded that utility Hg emissions remaining after imposition of the requirements of the Act are not reasonably anticipated to cause hazards to public health, it reasonably did not consider environmental effects unrelated to public health. EPA's interpretation of section 112(n)(1)(A) concerning environmental effects is reasonable given the language of section 112(n)(1)(A), unlike other provision in section 112, does not refer to environmental effects

To the extent the above comment summaries dispute EPA's authority to regulate HAP under section 111(d) or address EPA's appropriate and necessary finding with regard to non-Hg HAP, please refer to the sections below.

B. Is it Appropriate and Necessary to Regulate Coal-fired Units under section 112 on the Basis Hg Emissions?

Comment:

Many industry commenters argued that EPA has not demonstrated that regulation of Hg emissions from coal-fired power plants is appropriate and necessary under section 112. The agency's Utility Report to Congress found only that Hg was the hazardous pollutant of "greatest concern." It did not include a finding that Hg emissions from coal-fired power plants posed a public health concern. EPA's December 2000 decision to regulate Hg emissions from coal-fired power plants does not contain a concise explanation of the factual bases for the agency's conclusions that Hg emissions from these sources a risk to public health that warrants regulation. The commenters do not accept at face value that EPA has made a "plausible link" between mercury HAP emission from utility boilers and the potential health impacts and human exposure. Commenter OAR-2002-0056-2922 also states that the reference does for MeHg is highly conservative and that EPRI analyses show that significant reductions in Hg emissions from coal-fired plants will result in little change in human exposures in the U.S. that [OAR-2002-0056-2365, 2422, 2560, 2661, 2861, 2867, -2891, -2922, -2948, 3200, 3403, -3432, -3445, -3530, -3537)

According to Commenter 2867 and others, the 1998 Report to Congress, the December 2000 determination, and the preamble to the proposed rule all reflect the multitude of unanswered questions that make it impossible for EPA to conclude that any hazard to public health can reasonably be anticipated to result from emissions from utility units after the imposition of the other requirements of the Clean Air Act. Specifically:

- The basis for the proposed regulatory action is the EPA mercury and utility studies conducted under Section 112 (n)(1)(A) and (B). The commenter states that neither of these studies concluded that mercury or nickel emissions from power plants posed a specific risk to human health.

- All of the work performed to date by EPRI indicates that U.S. utility mercury emissions represent approximately one percent of total global mercury in the atmosphere, that deposition patterns of mercury are not a true indicator of exposure, that only methylated forms of mercury are bioavailable and accumulate in fish tissues, and that total elimination of U.S. utility mercury emissions would have no discernible impact on the exposure of sensitive populations to high levels of mercury through consumption of fish.
- The commenter claims that generic inferences to a "plausible link" between mercury emissions from power plants and methyl mercury concentrations in fish consumed by local populations (the human exposure pathway) as the basis for emissions reductions are scientifically and technically unsound (69 Fed. Reg. at 4658). The commenter believes that EPA has failed to adequately: a) Establish source-receptor linkages, b) Account for the high percentages of deep sea and farm-raised fish consumed as part of the American diet, or c) Provide any evidence of quantifiable health benefits in support of its call for mercury emission reductions from power plants.
- The commenter points out furthermore, EPA has recognized in the preamble that speculative theories about power plant emissions being responsible for creating localized mercury hot spots are unsupported. Importantly, there does not seem to be a scientific definition of a hotspot. The commenter claims that EPRI's comments in this docket dispel the myth of hot spots, using different interpretations of the term.
- The commenter notes that of particular significance in the context of the proposed mercury rulemaking are the following conclusions from additional modeling efforts performed by EPRI: 1) Even with a 70% reduction in US power plant mercury emissions (of an estimated 48 Tons per year) to 15 Tons, US mercury deposition would change on an average 6.9%. This disparity results from the fact that 70% of the mercury deposited in the United States is believed to originate outside of the US, 2) From an economic perspective, the estimated costs of such mercury reductions would run into several billion dollars, 3) And from an environmental perspective, despite these levels of reduction in power plant mercury emissions the benefits may not be discernable, when translated to reductions in fish advisories (the principal measurement yardstick for the effectiveness of the proposed mercury regulations), 4) The "reference dose value" (RID) on which fish advisories are premised have an inherent margin of built-in safety, and continuing research in the Seychelles study has demonstrated no observable health effects in sensitive populations at exposure levels far in excess of EPA's RID.
- The commenter claims EPA has offered no plausible scientific evidence of a link between mercury air emissions and cardiovascular related health effects.
- The commenter concludes that EPA has confirmed its decision not to regulate HAPs other than mercury and nickel, on the grounds that these other HAPS do not pose a risk to public health. EPRI's Research findings have arrived at these same conclusions. The commenter

states that EPA has also recognized that the CAA limits EPA's authority to regulate utility HAPs based only on health effects, not effects on other environmental media. The commenter recommends that this conclusion should be adopted, as part of the final rule and the December 2000 finding should also be revised appropriately.

According to Commenter 2861, while utilities may be the largest U.S. source of mercury emissions, they account for only about one percent of total global mercury emissions. The commenter states that EPA thus far has failed to provide an estimate of: 1) the amount of methylmercury in fish currently consumed in the U.S. that comes from U.S. power plants emissions; 2) the reduction in the concentration of methylmercury in fish consumed in the U.S. that might be expected from the reduction in power plant mercury emissions that EPA is proposing; and 3) the resulting reduction in human exposure, or the time over which any change in methylmercury concentrations and reduced exposure might occur. The commenter believes all are necessary to support the regulation of mercury emissions. The commenter states there is also a problem with the method EPA used to derive its highly conservative reference dose for mercury, which is lower than comparable values derived by other federal or international agencies. EPA relied solely on the results of the Faroe Islands study, totally ignoring an equally detailed and more credible study performed in the Seychelle Islands which did not find the same adverse developmental effects from methylmercury exposure found in the Faroe Islands study, and which doesn't suffer from the confounding effects of PCBs that the Faroe Islands study does. The commenter notes that other organizations use the results of the Seychelles Island study as part of their analyses and arrive at much higher reference doses. The commenter claims that EPA compounds its failure to consider all credible scientific information by applying a scientifically unjustified and excessively high uncertainty factor of 10 in setting its reference dose. The World Health Organization and the Agency for Toxic Substances and Disease Registry use uncertainty factors of 6.4 and 4.5 respectively.

The commenter states that analyses by the Electric Power Research Institute demonstrate that by reducing power plant mercury emissions to EPA's proposed 15 ton emissions cap level, exposure to methylmercury by women of childbearing age would be reduced by less than one percent. Given the lack of a factual case demonstrating a link between power plant mercury emissions and methylmercury levels in fish, the lack of available controls designed specifically to remove mercury, and the uncertainty of whether emissions reductions would actually achieve any significant reduction in exposure, the commenter certainly agrees with EPA's conclusion that regulation under the Section 112 MACT standards is not warranted. The commenter adds that for these same reasons, there is no justification for regulation under Section 112(n)(1)(A). The commenter asserts that in fact, since EPA has not quantified the risk and failed to acknowledge the many issues related to the control of mercury that remain unresolved, the only findings to date warrant that EPA rescind the December 20, 2000 finding entirely."

Commenter 3537 asserted that EPA's conclusion that regulation of Hg emissions from utility units is appropriate and necessary was not supported by the record. The commenter stated first, EPA's RfD for MeHg was overly conservative and should be used only as a screening tool for deciding when health concerns are non-existent, not as the basis for concluding that exposures above

the RfD result in adverse health effects. Second, EPA's reliance on a "plausible link" between anthropogenic releases of Hg from industrial and combustion sources in the U.S. and MeHg in fish was insufficient to justify regulation. The commenter stated that EPA's failure to quantify its plausible linkage theory prevented it from concluding that regulation of utility units pursuant to section 112(n)(1)(A) was appropriate and necessary to protect public health. Third, the fact that Utility Units are the largest source of Hg emissions in the U.S. did not warrant a finding that the regulation is appropriate and necessary under section 112(n)(1)(A). Instead, the commenter believed EPA must establish a relationship between Hg emissions from utility units and the effects of such emissions on public health, before the appropriate and necessary finding under section 112(n)(1)(A) could be made. The commenter stated that EPA failed to do this. Fourth, the use of fish advisories as a justification for listing ignored the fact that EPA could not quantify how much MeHg in fish consumed in the U.S. population is contributed by utility unit emissions. The commenter submitted, in other words, that fish advisories could not be used to conclude that Utility Units pose risks to public health. Fifth, EPA's speculation about the plausible health benefits from the control of Hg emissions from utility units was not supported by the EPRI's actual analyses. EPRI concluded, among other things, that even if Hg emissions from coal-fired power plants were reduced from 45 to 15 tons per year, Hg deposition in the U.S. would only be reduced from 165.4 tons per year to 153.9 tons per year (or 6.9 percent of the total annual Hg deposition in the U.S.) The commenter stated that such a small reduction in Hg deposition in the U.S. would have little effect on the exposures to women of child-bearing age. The commenter noted the Hg exposure to this population subgroup would only be reduced by 0.5 percent to 0.75 percent. The exposures of the fraction of the population predicted to be above EPA's RfD would only be reduced by 0.064 percent. According to the commenter, these small predicted percentage reductions in the population above the RfD brought into question whether any observable public health benefit would be realized as a result of significant reductions in Hg emissions from Utility Units. The commenter stated that the rulemaking record did not contain sufficient factual evidence to conclude that Hg emissions from coal-fired power plants present a public health concern. Therefore, the commenter submitted that EPA must reconsider its decision and must delist Utility Units from CAA section 112(c).

Response:

EPA agrees with the commenters that it is neither appropriate nor necessary to regulate coal-fired utility units under section 112 on the basis of Hg emissions, but for different reasons than those articulated by the commenters. The Agency articulates those reasons in the preamble and the technical support documents.

C. Is it Appropriate and Necessary to Regulate Coal-fired Units under section 112 on the Basis non-Hg Emissions and Oil-fired units under section 112 on the basis of Non-Ni HAP.

Comment:

The commenters contend that CAA section 112(c)(2) requires EPA to promulgate emission standards for all power plant HAP emitted in significant quantities from coal and oil-fired units (a listed source category).

- Commenter OAR-2002-0056-2817 indicated that EPA's rationale for not regulating non-Hg HAP relies heavily on Latham and Watkins memorandum. EPA declined to collect any more data or perform any additional analyses. The only additional information provided is an inadequate modeling of HCl emissions for two hypothetical plants.
- Three commenters (OAR-2002-0056-2823, -2878, -3459) stated that CAA section 112(c)(2) requires EPA to promulgate emission standards for all power plant HAP emitted in significant quantities from coal and oil-fired units (a listed source category); the CAA does not authorize EPA to pick and choose the HAP it will regulate (National Lime Association v EPA, 233 F.3d 625,634 (D.C. Cir. 2000)).
- Commenter OAR-2002-0054-2823 stated that although EPA identified Hg as the HAP of greatest concern, there are many other HAP emitted in significant amounts from this source category that result in adverse human health or environmental effects. The only way for EPA to legally avoid the obligation is to delist the source category, which EPA failed to do. In other rulemakings, such as the industrial boiler (IB) rule, EPA regulated the same HAP that EPA refused to regulate under this proposal. EPA must revise its proposed determination that regulation of these HAP is both inappropriate and unnecessary, and should adopt appropriate emissions standards for all HAP emitted in coal and oil-fired units in significant amounts.
- Commenter OAR-2002-0054-3449 indicated that EPA is required to regulate all HAP listed in section 112(b) as a result of its December 2000 finding that it is necessary and appropriate to regulate electric utility steam generating units under section 112. Emissions of other HAP do warrant regulation; the Utility RTC concluded that other HAP of potential concern include arsenic (As), chromium (Cr), cadmium (Cd), dioxins, hydrogen chloride (HCl), and hydrogen fluoride (HF). These other HAP can be controlled by currently available technology such as scrubbers (for acid gases) and baghouses (for metals and dioxin), which also are effective Hg controls. In the IB rule, EPA acknowledged the health effects of the same HAP, and promulgated limits for Hg, non-Hg metallic HAP, inorganic HAP, and organic HAP using surrogates. This contradicts EPA's statement that information obtained since the Utility RTC reveal no health risk warranting regulation. It also contradicts the Federal Plan requirements for municipal waste incinerators which control Hg and non-Hg HAP for existing units. EPA should regulate all significant HAP from utility units.

- Commenter OAR-2002-0054-3459 stated that the record supports the development of limits for non-Hg HAP emitted by utility units. The health and environmental effects are well-documented. EPA can not hide behind a supposed lack of data and use that to avoid setting standards because EPA has authority to collect necessary information and the environmental community has repeated urged EPA to augment its data if EPA felt more were needed. However, available stack test data is by itself sufficient to support limits for non-Hg HAP metals from coal-fired units and EPA must use these data to set standards. The currently available data for other non-Hg HAP do not appear sufficient.
- Two commenters (OAR-2002-0056-2920, -2767) indicated that EPA's failure to set standards for each of the HAP emitted by powerplants is unlawful and its rationale for not doing so is unlawful, arbitrary, and capricious. EPA did not even discuss the other HAP or provide any explanation for its failure to control them. EPA argues that section 112(n) gives it discretion on which HAP to regulate for power plants. EPA ignores section 112(d) and misreads section 112(n). Section 112(n) does not provide any exceptions from the section 112(d) requirements. EPA does not identify any statutory support for its interpretation of section 112(n).
- Many commenters stated that the proposals fail to address over 60 other HAP like As, Cr, dioxin, and acid gases (HF and HCl). According to Commenters OAR-2002-0056-2219 and -2198, EPA must regulate all HAP from the affected sources for three reasons. (1) EPA regulated all HAP from industrial boilers under subpart DDDD and there is little or no difference in coal-fired industrial boilers and coal-fired utility units. EPA must explain this discrepancy. (2) The study required under 112(n) was not restricted to only Hg and Ni -- all HAP were to be assessed. (3) Use of section 112(d) requires addressing all HAP emitted from utility units. Commenter 2889 adds that Hg and Ni controls would provide control of other HAP, increasing the cost effectiveness. Commenter OAR-2002-0056-3326 adds that a number of HAP emitted from power plants exceed health benchmarks, as evidenced by toxic air monitors operated over the past 3 years.
- Commenter OAR-2002-0056-3437 disagrees with EPA's interpretation of section 112(n)(1)(A) that, once EPA determines it must regulate Hg, it is not required to regulate any other HAP. The plain language of subsection (n) is that EPA is to regulate under section 112 ... after considering the results of the study required by this subsection. Subsection 112(n) refers to the larger section 112., which requires regulation of all HAP, not just the most significant one. The commenter believes EPA's decision not to address other toxic pollutants is not consistent with section 112 and rules EPA has promulgated for other industries and that the 1998 Utility RTC does not support EPA's position. EPA states that the study indicates that there are no non-Hg or non-Ni HAP emissions that warrant regulation and makes a finding that the uncertainties are so great that regulation of these pollutants do not pose a health risk. The Utility RTC specifically says that the report does not make a determination on whether to control HAP emissions, As and Cr contribute most to the inhalation cancer risks, The MIR from all HAP are 4 in 1 million, and further research

is needed to assess inhalation risk. The December 2000 finding said that As and Cr were also of potential concern for carcinogenic effects. Also, EPA's 1996 National Air Toxics Assessments predicted median concentrations of As, Cd, and Cr in numerous counties well over 1 in 1 million. Utilities account for the majority of these emissions. Chromium is the most significant HAP in Indiana. The commenter supports additional, refined risk assessment before EPA determined that other HAP do not pose a risk.

Response:

The Administrator today signed a final rule titled 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. The effect of that final rule is to revise EPA's finding that it is appropriate and necessary to regulate coal- and oil-fired Utility Units under CAA section 112 and to remove electric utility steam generating units for the 112(c) list of source categories. As a result, oil- and coal-fired Utility Units are no longer subject to regulation under CAA section 112 and commenters' comments are, therefore, moot. The EPA, nevertheless, disagrees with the commenters' contention that section 112(n)(1)(A) does not provide EPA with the authority to only establish regulations for those hazardous air pollutants for which it determines that it is appropriate to do so were it finalizing a CAA section 112 rule for all of the reasons explained in the preamble to the January 30, 2004 proposed rule. If EPA was proceeding with a CAA section 112 rule, that rule would be limited to regulating mercury emissions from coal-fired Utility Units for the following reasons.

In the study required by CAA section 112(n)(1)(A), and detailed in the RtC, EPA identified 67 HAP as potentially being emitted by Utility Units. Based on a screening assessment designed to prioritize HAP for further evaluation, EPA identified 14 HAP as priority for further evaluation. Of the 14 HAP identified for further evaluation, 12 HAP (As, beryllium (Be), Cd, Cr, manganese, Ni, HCl, HF, acrolein, dioxins, formaldehyde, and radionuclides) were identified for further study based on potential for inhalation exposure and risks. Four of those 12 HAP (As, Cd, dioxins, and radionuclides) plus Hg and lead (Pb) were considered priority for multipathway exposure. Of those six HAP, four (As, Hg, dioxins, and radionuclides) were identified as the highest priority to assess for multipathway exposure and risks. The other 53 HAP were not evaluated beyond the screening assessment.

In evaluating the potential for inhalation exposure and risks for the 12 HAP identified through the screening assessment as priority for that purpose, EPA estimated the high-end inhalation cancer risk for each HAP identified as a carcinogen and the high-end inhalation noncancer risks for the remaining HAP for both coal- and oil-fired Utility Units in 2010. That evaluation indicated that there was no maximum individual risk (MIR) for cancer greater than 1×10^{-6} for Be, Cd, dioxin, and Ni emissions from coal-fired Utility Units and for Be, Cd, and dioxin emissions from oil-fired Utility Units. With regard to dioxins, the RtC specifically concluded that the quantitative exposure and risk results did not conclusively demonstrate the existence of health risks of concern associated with inhalation exposures to utility emissions on a national scale or

from any actual individual utility. The RtC thus indicates that inhalation of Be, Cd, and dioxin emissions from Utility Units are not of significant concern from a public health standpoint because such exposure does not present a MIR for cancer greater than 1×10^{-6} . With regard to Pb emissions, EPA found that emission quantities and inhalation risks were relatively low and, therefore, decided not to conduct future evaluations of multipathway exposures to lead resulting from Utility Unit emissions. For As, EPA concluded that there were several uncertainties associated with both the cancer risk estimates and the health effects data such that further analyses were needed to characterize the inhalation risks posed by As emissions from Utility Units. The inhalation exposure assessment did not identify any exceedences of the health benchmarks (e.g., RfCs) for HCl or HF, thus indicating that Utility Unit emissions of those HAP did not pose a significant public health concern.

The EPA erred in the December 2000 Regulatory Determination to the extent that its appropriate finding for coal-fired Utility Units was based, in any way, on hazards to public health or the environment arising from emissions of non-Hg HAP from coal-fired Utility Units. Based on the information before it at the time, EPA could not have reasonably concluded that coal-fired Utility Unit non-Hg HAP emissions presented a hazard to public health. In addition, as stated above, EPA should not have considered environmental effects in the December 2000 Regulatory Determination's consideration of whether it was appropriate to regulate HAP emissions from coal-fired Utility Units under CAA section 112.

In the December 2000 Regulatory Determination, EPA indicated that there were a few metallic HAP (e.g., Cr and Cd) which were of potential concern for carcinogenic effects, but stated that "the results of the risk assessment (performed in conjunction with the RtC) indicate that cancer risks are not high". The EPA acknowledged, however, that the cancer risks were not low enough to eliminate those metals as a potential concern for public health. This later statement, at least as it pertains to Cd, is at odds with the results of the risk assessment set forth in the RtC and discussed above. In the RtC, EPA determined that there was no MIR for cancer greater than 1×10^{-6} due to inhalation of Cd emissions from Utility Units. In the Proposed Rule, EPA stated that although it recognized the existence of uncertainties with regard to the data and information obtained prior to the December 2000 Regulatory Determination regarding potential hazards to public health resulting from Utility Unit emissions of non-Hg metallic HAP, the Agency believed that the uncertainties associated with those emissions were so great that it was not appropriate to regulate them at that time because they do not pose a hazard to public health that warrants regulation. The EPA continues to believe that had it properly accounted for the uncertainties regarding the data and information on potential hazards to public health resulting from Utility Unit emissions of non-Hg metallic HAP in making the December 2000 appropriate finding it would have concluded that it was not appropriate to regulate such emissions because they do not cause a hazard to public health. The EPA has not discovered any new information on hazards to public health arising from such emissions that invalidates this conclusion, either through its own efforts or in response to the Proposed Rule.

In the December 2000 Regulatory Determination, EPA also identified dioxins as being of

potential concern and indicated that they may be evaluated further during the regulatory development process. The EPA did not, however, indicate that those concerns rose to a level that warranted regulation of dioxins. Thus, EPA did not conclude, and could not have concluded, based on the record before it at the time of the December 2000 Regulatory Determination that it was appropriate to regulate coal-fired Utility Unit HAP emissions under section 112 of the CAA on the basis of dioxin emissions. In the Proposed Rule EPA stated that while it intended to continue to study dioxins in the future, the RtC and the information EPA had obtained since finalizing the RtC revealed no public health hazards reasonably anticipated to occur as a result of emissions of dioxins by Utility Units. As is the case with non-Hg metallic HAP, EPA has neither discovered information on hazards to public health arising from Utility Unit emissions of dioxins based on its own efforts, nor received such information in response to the Proposed Rule. The EPA therefore concludes that its appropriate finding in December 2000 lacked foundation because it could not have reasonably concluded that the level of remaining utility dioxin emissions results in hazards to public health.

In the December 2000 Regulatory Determination, EPA identified emissions of HCl and HF as being of potential concern and indicated that such emissions may be evaluated further during the regulatory development process. The EPA did not, however, indicate that it believed that it was appropriate to regulate such emissions, under section 112 or otherwise. As indicated in the Proposed Rule, EPA did in fact further evaluate Utility Unit emissions of HCl and HF. That modeling indicates that individuals are not exposed to acid gas emissions from Utility Units at concentrations which pose hazards to public health. EPA has neither discovered information on hazards to public health arising from Utility Unit emissions of acid gases based on its own efforts, nor received such information in response to the Proposed Rule. EPA therefore concludes that its appropriate finding in December 2000 lacked foundation because the level of remaining utility acid gas emissions does not result in hazards to public health.

For the reasons stated above, EPA finds that it could not reasonably have concluded that it was appropriate to regulate coal-fired Utility Units under section 112 due to emissions of non-Hg HAP based on the record before it at the time of the December 2000 Regulatory Determination. The EPA further finds that it has not itself discovered any information which would support the conclusion that it is appropriate to regulate non-Hg HAP emissions by coal-fired Utility Units under CAA section 112 subsequent to the December 2000 Regulatory Determination, nor has it received any such information in response to the January 2004 Proposed Rule, the March 2004 Supplemental Notice or the December 2004 Notice of Data Availability. Finally, EPA finds that it should never have considered potential environmental effects in determining whether it was appropriate to regulate coal-fired Utility Units under section 112. The EPA, therefore, finds that, based on the record before it at the time, it was in error in determining that it was appropriate to regulate coal-fired Utility Unit HAP emissions under section 112 to the extent that the determination was based in any way on the hazards to public health of non-Hg HAP emissions or on environmental effects resulting from such emissions.

In determining whether it is appropriate and necessary to regulate Utility Unit HAP

emissions under section 112, the threshold question is whether it is appropriate to regulate such emissions at all. Where, as here, EPA cannot reasonably conclude that it is appropriate to regulate such emissions, it should never have reached the question of whether it is necessary to regulate such emissions under section 112, or elsewhere. In any event, even if EPA could have reasonably concluded that it was appropriate to regulate non-Hg HAP emissions from coal-fired Utility Units, it would not have been reasonable for the Agency to find that it was necessary to regulate such emissions under section 112 since, as discussed above, it should have realized that there was an available alternative mechanism, i.e., section 111, for regulating such emissions had it been appropriate to do so.

Comment:

These commenters believe EPA correctly decided not to regulate HAP emissions other than Hg and Ni from Utility Units, EPA should only regulate Hg, and/or EPA should not regulate Ni emissions from oil-fired units.

- Commenter OAR-2002-0056-3537 notes that EPA appropriately recognizes that parts of its December 2000 finding were overbroad and could not reasonably have been made, based on the record before it in December 2000. EPA recognizes that its determination could be interpreted to suggest that all HAP emissions from coal and oil-fired Utility Units pose serious public health hazards. However, in the preamble to the Hg Rule, EPA admits that it could not reasonably have reached such a conclusion based on the record before it at the time of the finding, which, according to EPA, support only a finding that emissions of Hg and Ni warrant regulation. EPA notes that nothing in the utility study or information obtained by EPA following such study (such as the NAS Study) supports the proposition that EPA should address HAP emissions from Utility Units other than emissions of Hg and Ni. The commenter notes that EPA also recognizes that its conclusion that emissions of HAP from Utility Units result in serious environmental hazards also cannot be supported by the record. The commenter submits first and foremost, CAA section 112(n)(1)(A), focuses solely on hazards to public health, not the environment. Second, the utility study itself expressly notes that the ecological impacts associated with HAP from utility units were not examined, because such impacts were beyond the scope of the study mandated by section 112(n)(1)(A). The commenter further notes therefore, EPA expressly states that: “the most ... [it] could have intended to state in the December 2000 ‘necessary’ finding is it is necessary to regulate Hg from coal-fired Utility Units and Ni from oil-fired Utility Units because the implementation of other requirements under the CAA will not adequately address the serious public health hazards arising from such emissions or the environmental hazards associated with Hg.” The commenter submits that this finding if properly made is sufficient to support the regulation of Hg emissions from coal-fired Utility Units under section 112.
- According to Commenter OAR-2002-0056-2422, non-Hg HAP should not be regulated. EPA’s authority under CAA sections 112(c) and (d) is limited to regulating Hg emissions from coal-fired plants. This limitation results from the unique way that Congress chose to

treat electric utility steam generating units under section 112 of the Clean Air Act.

- Commenter OAR-2002-0056-3556, -2911 states that EPA has correctly decided not to regulate HAP emissions other than Hg and Ni from Utility Units. In its December 14, 2000 regulatory decision, EPA concluded that Hg from coal-fired plants is the HAP of greatest potential concern, with additional research and monitoring being needed. The commenter points out that EPA noted that Ni emissions from oil-fired plants were of potential concern, but that significant uncertainties exist pertaining to the form of Ni emitted. The commenter also points out that EPA stated that As and a few other metals, such as Cr and Cd, may be of potential concern for carcinogenic effects, and that dioxins, HCl, and HF are of potential concern, and all would require more study. EPA added that the other HAP studied in the risk assessment do not appear to be of concern for public health, based on the available information. The commenter also points out that in the preamble to the rule, EPA does not suggest that any non-Hg HAP, emitted by Utility Units, is a public health concern, nor has it offered any factual evidence to support such a conclusion. The commenter states that, consequently, the rulemaking record does not establish any public health concern from power plant emissions of non-Hg HAP. The commenter further states that until such a factual showing exists, EPA does not have legal authority to regulate those HAP, under CAA section 112(n)(1)(A). The commenter states that, consequently, the rulemaking record neither establishes nor supports a public health concern for the regulation of other HAP.
- Commenter OAR-2002-0056-2830 states that EPA should regulate only Hg as a coal-fired utility boiler HAP. EPA and EPRI studies have demonstrated that other coal-fired utility HAP emissions do not pose public health risk.
- Commenter OAR-2002-0056-2835 stated that it is appropriate to focus any air regulatory program for electric utilities solely on emissions of Hg and Ni given that these are the pollutants of greatest concern. No other outcome is legally permissible based on the information in the rulemaking record, which only supports setting limits for those pollutants of greatest concern. EPA correctly states that the information collected on emissions of other HAP is inconclusive. CAA section 112(n)(1)(A) requires EPA to assess the public health hazards posed by emissions from electric utilities and regulate these sources considering the results of the study. This section does not dictate which pollutants EPA must regulate independent of the potential health risks; instead, EPA must consider the results of the study. Given that EPA's study points to Hg emissions, and to some extent Ni emissions, as the HAP of greatest concern, a regulatory program addressing only these pollutants meets the statutory requirements of section 112(n)(1)(A).
- Several commenters (OAR-2002-0056-2365, -2660, -2891, -3200, -3432) support EPA's finding that non-Hg HAP from coal-fired power plants do not need to be regulated. CAA section 112(n) directs EPA to regulate HAP emissions, if appropriate and necessary, based on health effects. EPA's studies have found no need to control non-Hg HAP based on public health concerns, and the agency has not determined that such controls are necessary.

- Commenter OAR-2002-0056-3445 notes that in its December 2000 regulatory determination (65 FR 79824), EPA identified only Hg as the pollutant of concern. The commenter further notes that EPA collected and studied Hg data in the ICR and the working group process. The commenter states that only Hg emissions should be regulated.
- Commenter OAR-2002-0056-3478 points out that before making the decision to include coal- and oil-fired as NESHAP source categories, EPA conducted a comprehensive study of the impacts from all HAP emitted by these units. The commenter notes that EPA concluded that Hg (and Ni from oil-fired units) were the only HAP of concern for the coal-fired units.

Response:

The Administrator today signed a final rule titled 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. The effect of that final rule is to revise EPA's finding that it is appropriate and necessary to regulate coal- and oil-fired Utility Units under CAA section 112 and to remove electric utility steam generating units for the 112(c) list of source categories. As a result, oil- and coal-fired Utility Units are no longer subject to regulation under CAA section 112. EPA does, however, agree with the commenters that Hg is the only pollutant for which regulation should be pursued. Consequently, the Administrator signed another final rule today titled Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units. That rule establishes a traditional CAA section 111(b) new source performance standard for mercury emissions from Utility Units and provides for a national mercury cap-and-trade program for mercury emissions from both new and existing Utility Units pursuant to CAA section 111(d). The new rule does not address Ni emissions from oil-fired Utility Units because EPA has determined that regulation of Ni emissions from oil-fired Utility Units is not necessary.

D. Is it Appropriate and Necessary to Regulate Oil-fired units under section 112 on the basis of Ni Emissions.

Comment:

Several industry commenters (OAR-2002-0056-2046, -2452, -2504, -2835, -2828, -2850, -2867, -2891, -2910, -2922, -3345, -3356, -3402, -3513, -4454) contend that the risk posed by Ni emissions from oil-fired units is negligible and does not justify the December 2000 regulatory determination that it is appropriate and necessary to these units. The commenters contend:

- The EPA risk assessment and assumptions in the Utility RTC greatly overestimated the inhalation risk posed by Ni emissions from oil-fired plants. Although EPA acknowledged that there was significant uncertainty concerning the risks, the agency overestimated the risks from oil-fired plants assuming that 50 percent of the Ni emitted from oil-fired plants is nickel subsulfide (a carcinogen), but then admitted in the report that the data available indicated less

than 10 percent of Ni emissions as nickel subsulfide. Recent studies (University of North Dakota Energy & Environmental Research Center, UNDEERC) have shown that the amount of nickel subsulfide actually emitted from oil-fired units is much lower (nearing or at zero) than originally assumed by EPA. Commenter OAR-2002-0056-4454 adds that recent studies by Galbreath in 2000 and 2004 show that the Ni species in oil-fired emissions consist of soluble nickel sulfate and insoluble nickel oxide - - nickel subsulfide is simply not present, and would not be expected to be, given its instability at high temperatures and with excess stoichiometry of oxygen. If there is near zero or zero nickel subsulfide being emitted, then the risks of Ni emissions are near zero or zero. According to Commenter OAR-2002-0056-2046, the Carnot and University of Louisville Nickel Speciation Program April 1995 testing of Sites 127, 128, 129, and 130 (EPRI-12288/R016F989.T) and EPRI PISCES Field Chemical Emissions Monitoring Project Site 112 Emissions Report (EPRI TR-105632/9028-03) showed that sulfidic nickel compounds generally comprised between 5 and 10 percent of total Ni, with a maximum of 25 percent. The commenter noted that with the exception of the UNDEERC study, tests were conducted for nickel sulfide, not nickel subsulfide. In view of these findings, EPA does not have a sufficient basis to support its original finding that regulation of oil-fired utility units is appropriate and necessary under CAA section 112(n)(1)(A). Commenter OAR-2002-0056-2912 agrees that EPA should rescind the regulatory determination for oil-fired units because the Utility RTC contains faulty, and scientifically unsupportable, assumptions regarding the carcinogenicity of Ni emitted from oil-fired units.

- Commenter OAR-2002-0056-2867 submits that no studies have attributed specific health effects to Ni emissions from utility units, and recent work suggests that speciation data supports the lack of any viable connection between such emissions and any arguable health effects. The commenter asserts that EPA's decision to regulate Ni from oil-fired plants likewise is not substantiated. EPA admits (69 Fed. Reg. at 4658) that uncertainties exist with respect to the quantity and fate of the Ni emissions from oil-fired power plants, their speciation, and that there are no reference concentrations that can be related to specific health endpoints. The commenter submits that in sum, there is a lack of any demonstrated link between power plant emissions and inhalation based health effects risks (the primary human exposure route). The commenter believes that given these limitations EPA does not have a sound basis for regulating Ni emissions from oil-fired utility units. The commenter adds, moreover, EPA's health risk assessment for oil-fired power plant Ni emissions is keyed to what is believed to be "screening level" modeling of health effects, that may not have been predicated on correct assumptions for the parameters listed above. Previous EPRI conducted modeling appears to dispel any inhalation risk concerns, the principal pathway for human exposure.
- Commenter OAR-2002-0056-3345 notes that an EPRI study used many of the EPA's emissions data and risk assessment methods but concluded that cancer inhalation risks are less than one in one million for all utilities, and non-cancer inhalation risks are well below Federal threshold levels for all utilities. Although the Utility RtC states that further research

is needed to assess the inhalation cancer risks especially to reduce uncertainties associated with the Ni risk estimates, EPA appears to have ignored the EPRI research and the Utility RTC's recommendations. Despite these uncertainties (and without resolving them), EPA determined that it was appropriate and necessary to regulate Ni emissions from oil-fired utility units.

- There has been a substantial change in the universe of affected facilities . More recent operating data show that a number of the facilities have retired or reduced their use of residual oil since EPA performed its study. Use of many oil-fired generators has been reduced due to age and/or high fuel costs. According to one commenter, one of its members serving Jacksonville and northeast Florida has retired all of its inter-city heavy oil-fired units and has recovered two 300 MW units at the rural Northside Generating station. The member's system has gone from 11 oil-fired generators (approximately 1700 MW) in the 1980s to 1 unit (approximately 500 MW) today. Thus, there may no longer be a plant that contributes to a MIR of cancer of more than one in one million, which would make delisting appropriate. The commenters (OAR-2002-0056-2046, -2835, -2891, -2912, -3402, -3345) recommend that EPA revisit the question of whether Ni emissions from these units warrant regulation at all.
- Four commenters (OAR-2002-0056-2952, -3445, -3514, -4454) stated that the proposed rule for Ni emissions from oil-fired units is based on inadequate data.
- Several commenters (OAR-2002-0056-2850, -2915, -2929, -2948, -2952, -3345, -3514, -3556) contend that EPA has no jurisdiction to regulate Ni from oil-fired plants because specific health concerns associated with HAP emissions were not identified when the agency issued original regulatory determination in December 2000. The evidence in the rulemaking record fails to show that there is a public health risk associated with Ni emissions from oil-fired units. Commenter OAR-2002-0056-2952 states that EPA's determination that it was "appropriate and necessary" to regulate Ni emissions from oil-fired units was made in error because it did not properly reflect the lack of information on the health effects from Ni emissions from oil-fired units.

Response:

Based on the comments received, EPA has examined recently available information relating to both the number of oil-fired units and the combinations of fuels fired in such units. Based on that examination, EPA believes that Ni emissions from oil-fired Utility Units have been substantially reduced since the 1998 Utility RtC through a combination of unit closures and fuel switching. In addition to the information provided by the commenters, EPA analyzed the latest information provided by the U.S. Department of Energy, Energy Information Administration (DOE/EIA), particularly with regard to the 11 plants identified as causing the greatest risk. The 11 oil-fired plants identified in the Utility Study as having a cancer maximum individual risk of greater than 10^{-6} based on Ni emissions were comprised of 42 individual units. Of those 42 units,

12 units have permanently ceased operation or are out of service. (OAR-2002-0056-2046 at pp. 12 - 13; OAR-2002-0056-5998). In addition, 6 of the original 42 units have reported to the U.S. Department of Energy (DOE) that their fuel mix now includes natural gas. Earlier reports did not show these units as using natural gas as a fuel. (OAR-2002-0056-5998). The use of natural gas as a part of their fuel mix would decrease the Ni emissions from these 6 units. Similarly, another 5 units report using a mix of natural gas and distillate oil (rather than residual oil) in 2003. (OAR-2002-0056-5998). Since distillate oil contains less Ni than the residual oil previously burned by these units, it is reasonable to assume that these units currently emit less Ni than was previously the case. Another 2 units now fire a residual oil/natural gas mixture and have limited their residual oil use through permit restrictions to no greater than 10 percent of the fuel consumption between April 1 and November 15, with natural gas being used for at least 90 percent of total fuel consumption. (OAR-2002-0056-2046 at p. 13). Finally, five units have effectively eliminated their Hg emissions since the Utility Study by switching to burning natural gas exclusively. (OAR-2002-0056-2046 at pp. 12 - 13; OAR-2002-0056-5998). Taken as a whole, these changes mean that 30 of the original 42 units identified in the Utility Study have taken steps to effectively reduce or actually eliminate their Ni emissions. Of the original 11 plants identified in the Utility Study, only 2, both in Hawaii, have units for which actions that will result in reduced Ni emissions do not appear to have been taken. (OAR-2002-0056-6871). In addition to the closure of the 12 units identified as being of potential concern in the Utility Study, there has been a steady decrease in the number of oil-fired Utility Units generally over the past decade and this trend is likely to continue. In fact, the latest DOE/EIA projections (OAR-2002-0056-5999) estimate no new utility oil-fired generating capacity and decreasing existing oil-fired generating capacity through 2025, with an additional 29.2 gigawatts of combined oil- and natural gas-fired existing capacity being retired by 2025. Based on the foregoing, EPA concludes that it is not appropriate to regulate oil-fired Utility Units under section 112 because we do not anticipate that the remaining level of utility Ni emissions will result in hazards to public health.

E. EPA's Authority to Regulate HAP from Utility Units Under CAA Section 111.

Many commenters (including States and public interest groups) stated that EPA has misconstrued CAA section 112(n), and that section 112 is the only legal authority for regulating HAP. (OAR-2002-0056-2108, -2330, -2332, -2823, -2575, -2823, -2880, -2871, -2878, -2889, -2920, -2924, 3393, -3394,-3459). According to these commenters:

- The legislative history cited by EPA does not support its position (OAR-2002-0056-2823, -2920, -3459, 3393, 3394). According to commenter OAR-2002-0056-2823, EPA attempts to find support for its interpretation of section 111(d) by citing a conflict where none exists between the 1990 House and Senate amendments to section 111(d) in 1990. Although there is a difference in the two versions, the language does not affect the meaning of section 111(d). According to commenter OAR-2002-0056-2920, both amendments clearly preclude regulation of Hg and Ni under CAA section 111. Commenter OAR-2002-0056-3459 gave two explanations why the two amendments do not conflict and stated that both amendments reinforce the same principle – EPA can not use CAA section 111(d) to regulate HAP except

where the CAA specifically tells EPA to do so. Even if they did conflict, EPA can not adopt its proposed reconciliation because there is a canon of statutory interpretation that when two provisions are irreconcilably conflicting, the last provision in the point of arrangement (in this case, the Senate amendment) must control (Lodge 1858, Am. Fed. of Gov't Employees v. Webb, 580 F.2d 496, 510 (D.C. 1978)). Because there is an easy reconciliation, EPA lacks authority to adopt an alternative interpretation in an attempt to invent new regulatory authority to control HAP under section 111(d) beyond the requirements of section 129. Because this authority does not exist, EPA cannot use section 111(d) to issue standards of performance for HAP from existing units. Because EPA cannot use section 111(d), EPA's claimed authority to rescind its regulatory determination evaporates and regulation under section 112 remains necessary just as EPA determined in December 2000. Finally the commenter asserts that EPA's interpretation of the conflicting amendments is contrary to section 112(b)(6) that provides that pollutants listed under CAA section 112(b)(1) are not subject to the Prevention of Significant Deterioration ("PSD") regulations .

- Sections 112(c)(6) and 112(d)(7) do not authorize regulation of HAP under any provision of the CAA except section 112 (OAR-2002-0056-2878, -2920, -3459) . There is nothing in the language of the provisions, legislative history, or structure of the CAA to support EPA's assertion. EPA does not identify any language in the provisions to support a conclusion (only their assertion). The legislative history indicates that Congress intended EPA to regulate HAP only under section 112. Commenter 3459 added that CAA section 112(d)(7) does not grant, imply or contemplate authority to regulate HAP emissions under any other section other than 112. It represents a prohibition on EPA adopting section 112 standards that diminish or replace requirements under state authorities or other CAA provisions. The commenter gives four reasons why EPA's reading is wrong and would lead to absurd results.
- Statutory authority under section 111(d) only covers standards for existing sources for any air pollutant for which air quality criteria have not been issued or which is not on the list of criteria pollutants or which is emitted from a source category which is regulated under section 112. Mercury and Ni are emitted from other source categories regulated under section 112 (e.g., hazardous waste combustors).
- EPA misconstrues CAA section 111(d). Congress did not intend section 111(d) as a substitute for regulation under CAA section 108 or 112. Commenters assert that section 111(d) is a backstop provision, requiring state regulation of existing sources if emissions from new sources in the category are regulated by an NSPS, but only if emissions the emissions are not criteria pollutants regulated under CAA sections 108-110 and that HAP be regulated under section 112. Regulation under CAA section 111(d) is unavailable (OAR-2002-0056-2823).
- EPA has no authority to regulate HAP emissions from electric utility unit or to establish a Hg

cap and trade program under CAA section 111(d). Section 112(n) clearly states that EPA must regulate electric utility steam generating units under *this* section (i.e., 112), not this *subsection*. Subsections 112(d), 112(f), and 112(h) are the only authorities under section 112 under which EPA may regulate HAP emissions. Congressional intent to regulate Hg emissions under section 112 is clear (see Chevron USA v. NRDC, 467 US 837 (1984). (OAR-2002-0056-2330, -2332, -2871, -2880, -2889, -2924).

- Commenter OAR-2002-0056-2920 states that even if the legislative history cited by EPA in support of its proposal to regulate under CAA section 111 were relevant, it does not support rescinding the regulatory finding. Based on EPA's construction of CAA section 111(d), commenter OAR-2002-0056-2823 states that the actual listing under section 112(c) precludes EPA from requiring state regulation of the source category under section 111(d). EPA's determination that it can regulate under section 111(d) because it erred in the source category listing under CAA section 112(c) is transparent and has no foundation in statutory language or legislative intent.
- Thirteen U.S. Senators and Congressmen states that none of the proposals is legally supportable under the Clean Air Act and each violates Congressional intent that EPA shall regulate HAP under section 112. These officials urge EPA to repropose a legally defensible and scientifically supportable MACT rule under section 112. If finalized in 2005, the MACT rule will be more than 3 years late and they do not wish to see any further delay in fulfilling the requirements of section 112. [2836].

Response:

We disagree with the commenters. For all of the reasons stated in the final rule titled 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, EPA believes that it has authority to regulate HAP from Utility Units under section 111(d) of the Act. The commenters do not dispute that both the House and the Senate enacted different amendments to section 111(d) in 1990. Nor do they dispute that the language of the two amendments differ. EPA disagrees with the commenter that asserts that the language of the two different amendments to section 111(d) does not affect the meaning of section 111(d). The language of the amendments, as explained in the final rule, are different and commenters' attempts to argue to the contrary lack foundation.

In section 111(d), EPA is confronted with the highly unusual situation of an enacted bill signed by the President that contains two different and inconsistent amendments to the same statutory provision. Neither we, nor commenters, have identified a canon of statutory construction that addresses the specific situation with which we are now faced, which is how to interpret two different amendments to the exact same statutory provision in a final bill that has been signed by the President. The canon of statutory construction that calls for harmonizing conflicting statutory provisions, where possible, and adopting a reading that gives some effect to both provisions is not

controlling here because that canon applies where two provisions of a statute are in conflict, not where two amendments to the same statutory provision are in conflict. Similarly, the canon of statutory construction that provides that where there is a conflict between two provisions in a statute, the last provision in point of arrangement controls does not apply, where, as here, the conflict is between two different amendments to the same statutory provision, as opposed to two entirely different provisions of a statute. In addition, application of this rule conflicts with the legislative history discussed in the final rule, which further supports EPA's interpretation of the conflicting amendments to section 111(d).

Moreover, most of commenters' arguments hinge on the assertion that their interpretation or attempt at harmonizing the amendments is a reasonable one. The question, however, is not whether the commenters have identified a reasonable construction of the Act, but whether EPA's construction is permissible. We believe that our construction of the Act is permissible and consistent with the legislative history.

In assessing whether to revise the December 2000 "necessary" finding, it is reasonable to look to whether CAA section 111 constituted a viable alternative authority for regulating utility HAP emissions prior to the December 2000 finding. The answer is yes and therefore under our proposed interpretation of the conflicting amendments, we could have regulated HAP from Utility Units under section 111(d). We listed coal- and oil-fired Utility Units under section 112(c) in December 2000 based solely on our appropriate and necessary finding. That finding lacks foundation and, recent information, confirms that it is neither appropriate nor necessary to regulate Utility Units under CAA section 112. We should have recognized prior to the December 2000 finding that section 111 constituted a viable authority for regulating utility HAP emissions and therefore should have never listed Utility Units on the Section 112(c) list.

Finally, commenters argue that EPA cannot rely on section 111(d) to regulate HAP, except where Congress specifically tells it do so, as in section 129. EPA disagrees. Section 129 is another provision of the Act, in which Congress treated a particular source category in a unique way. Section 129, like section 112(n)(1)(A), are both specifically tailored provisions to specific source categories. Congress provided different treatment for these two source categories, but that does not render our interpretation of the conflicting amendments – that EPA can regulate HAP under section 111(d) if such HAP are emitted from facilities that are not part of a source category regulated under section 112 – invalid. Commenters also rely on CAA section 112(n)(5), which directs EPA to study hydrogen sulfide, which is not a HAP, and to develop a control strategy to protect public health "using authorities, such as sections 7411 of this title and this section." That provision cites section 111, but it also refers to other authorities, such as section 111 and 112. Section 112(n)(1)(A) is framed by reference to the requirements of the Act. It does not reference section 111, but the fact that section 112(n)(5) does, as an example, does not mean that EPA cannot regulate HAP under section 111(d).

Contrary to commenters' assertions, CAA section 112(b)(6) can more readily be viewed as demonstrating that Congress was aware of how to instruct EPA not to regulate HAP emission under

other sections of the Act when it intended to do so. Since there is not a similar prohibition in section 112(b) regarding regulations under CAA section 111, it is reasonable to assume that Congress did not intend to preclude EPA from regulating HAP emissions under that section in appropriate circumstances. Similarly, the fact that Congress specifically authorized EPA to use its authorities under section 111, as well as section 112, in developing and implementing any necessary control strategy for emissions of hydrogen sulfide, which is not a HAP, should not be read as precluding EPA from regulating HAP emissions under section 111 when EPA determines that it is appropriate to do so.

Comment:

Commenter OAR-2002-0056-2867 stated that EPA has correctly harmonized these conflicting statutory provisions, and interpreted them in a way that effectuates the purposes of the statute as whole.

Response:

EPA agrees with this commenter.

3.0 EPA's PROPOSAL TO REMOVE COAL- AND OIL-FIRED UTILITY UNITS FROM THE CAA SECTION 112(c) LIST 2000

Many commenters disagreed that EPA has authority to remove coal- and oil-fired Utility Units from the section 112(c) list without following the criteria in section 112(c)(9). (OAR-2002-0056-1327, 1836, 2010, 2108, 2110, 2173, 2330, -2332, -2823, -2519, -2575, 2660, -2823, -2880, 2836, -2871, -2878, -2889, 2919, -2920, -2924, 3393, 3449, -3394,-3459, 3552, 4139.]

- EPA's proposal contravenes the legally valid and correct regulatory determination of December 2000. The regulatory determination followed Congressional intent of regulation under section 112. The 1998 NRDC settlement agreement also requires this. EPA has no basis for reversing this determination. Since 2000, no other CAA requirements have been imposed and EPA has not performed a new study or otherwise produced new information of diminished hazard. In fact, the bulk of scientific evidence since 2000 justifies more stringent regulation of Hg and other HAP from these sources. Therefore, EPA can not conclude that "after considering the results of the [1998] study" it is not longer necessary to control utility emissions under section . Once a source category is listed under section 112(c), which it did in December 2000, it cannot delist the industry unless it follows the process in section 112(c)(9). EPA can not do this because the facts do not support a determination that no coal or oil-fired plant emits HAP at levels low enough that (1) the emissions pose no lifetime risk of cancer greater than 1 in 1 million, (2) the emissions do not exceed levels adequate to protect public health with an ample margin of safety, and (3) no adverse environmental effect will result from emissions from any powerplant. EPA's attempt to endrun these requirements

is unacceptable. (OAR-2002-0056-2836)

- Commenter 2575 states that if EPA wants the regulatory finding to disappear, it must make a formal finding that Hg emissions from coal-fired power plants do not have an adverse impact on human health and therefore, it is not necessary to regulate under section 112. Nowhere does (or could) EPA deny the severe human and environmental effects of Hg contamination on waterways and consequential dangers to public health. The word “necessary” in section 112(n)(1)(A) means that EPA must regulate Hg emissions under section 112 if the public health impacts require such regulation. The legislative history of section 112(n) supports this position.
- According to Commenter 2823, EPA tries to avoid regulation under section 112 by arguing that the December 2000 regulatory determination was without proper foundation. Based on that argument, EPA claims it does not have to follow the statutory criteria for delisting a source category established in section 112(c)(9)(b)(ii). However, electric utility generating units were properly listed as source category. EPA is required to delist them in accordance with the CAA, and may not rely on inapplicable and distinguishable examples of past delistings to support bypassing its clear statutory mandate. EPA's initial listing of electrical generating units as a source category was the result of extensive scientific study. EPA cannot delist EGU as a source category except pursuant to section 112(c)(9)(B)(ii). EPA cannot meet the delisting criteria for EGU. This is confirmed by EPA's Industrial Boiler rulemaking (February 26, 2004).section 112. EPA must regulate under the Section 112 framework.
- Commenter OAR-2002-0056-2920 stated that even if the legislative history cited by EPA in support of its proposal to regulate under CAA section 111 were relevant, it does not support rescinding the regulatory finding. Based on EPA's construction of CAA section 111(d), commenter OAR-2002-0056-2823 states that the actual listing under section 112©) precludes EPA from requiring state regulation of the source category under section 111(d). EPA's determination that it can regulate under section 111(d) because it erred in the source category listing under CAA section 112©) is transparent and has no foundation in statutory language or legislative intent.
- According to Commenter 2173, EPA did not and clearly can not meet the statutory requirements to delete utility units from the list of source categories under section 112©) because (as EPA states in the preamble) utility pose a threat to public health and the environment and EPA's attempts to sidestep the source category delisting procedure lacks merit. EPA's claim that its original decisions to list utility units was improper because of its asserted authority to regulate them under section 111 fails because: (1) EPA's assertion that MACT regulation is not required if there is other CAA authority to regulate mercury is based on a mis-reading and misapplication of section 112(n)(1)(A); (2) EPA has not and cannot demonstrate that the proposed section 111 regulations will adequately address mercury health hazards; and (3) EPA's attempts to harmonize the 1990 House and Senate

amendments to the CAA to allow regulation of mercury emissions from utility units under section 112(d) lacks merit (once a pollutant such as mercury is listed as a HAP under section 112(b), section 111(d) prohibits EPA from establishing emission standards under section 111 for any such source category). In addition, the NRDC settlement requires EPA to regulate utility units under section 112 and the federal trust responsibility requires EPA to meet a protective MACT standard under section 112. " S

- Commenter 2575 contends that EPA's attempt to rescind the December 2000 regulatory finding is unwarranted and illegal. EPA's proposed delisting violates section 112(c)(9). EPA seeks to rescind the finding and remove utility units from the 112(c) list stating that nothing prevents them from revisiting the finding, particularly where the basis for the determination involved the scope of existing statutory provisions and those provisions have not changed since 1990. While EPA can "revisit" the finding, EPA cannot alter it by deleting a HAP source from the 112(c) list without meeting the delisting requirements in 112(c)(9). Nowhere does EPA make the necessary determination that (1) mercury emissions will not exceed a level which is adequate to protect public health with an ample margin of safety and (2) no adverse environmental effects will result from the emissions. EPA says it can delist a source category without following the criteria because it has done so on several occasions in the past. Thankfully, the argument that a person who has violated the law in the past with impunity, he is allowed to continue doing so, is not recognized in American law. Further, when EPA said it previously ignored the delisting requirements, the delisting were because subsequent information showed the sources were not major sources of HAP. This is not the case for utility units. Congress included mercury on the section 112(b) list of HAP and required regulation of utility units if the public health study found that impacts were significant enough to warrant regulation under section 112. Nowhere does EPA suggest that mercury from utility units does not create a public health or environmental hazard. EPA cannot delist utility units under the plain language of section 112(c)(1), which requires EPA to list all major sources of HAP listed pursuant to section 112(b). Mercury compounds were included on the section 112(b) list with the original list of HAP. Absent a finding that utility units are not major sources of mercury emissions, EPA must include these sources on the 112(c) list.
- According to Commenter 2920, EPA's proposal to remove power plants from the section 112(c) list of source categories is unlawful, arbitrary, and capricious. EPA has not made the statutory determinations required by section 112(c)(9) to delist a source category. That EPA has previously delisted categories without complying with section 112(c)(9) does not make it any less unlawful and the circumstances for these previous delistings were very different. Here, EPA wants to undo a previous determination that section 112 regulation of power plants was necessary and appropriate. It is precisely that type of attempt at deregulation that the provisions of section 112(c)(9) were enacted to prevent. Once a category has been placed on the 112(c) list, it cannot be removed without demonstrating that the risks from the category fall below the specific risk level cited in section 112(c)(9)(B).

- Several commenters (OAR-2002-0056-2519, -2660, -3449, -3459) stated that EPA's regulatory determination was a singular event with legal consequences that can not be unmade, particularly where no new factual evidence supports that action. EPA must abide by the consequences or use the statutorily prescribed route - section 112©)(9) - to avoid MACT requirements. And, EPA cannot reverse the listing because the plain language of the CAA requires that section 112 contain all major sources of HAP.
- Commenter 2575 explained that while mercury was included on the original HAP list under section 112(b), Congress allowed utility units to delay rules under section 112(n)(1) pending a study of the adverse health effects. Section 112(n)(1)(A) requires EPA to regulate utility units under section 112 if the Administrator finds such regulation is appropriate and necessary and after considering the results of the study. The conference committee for the 1990 amendments added this provision because of their concern about the cost of immediate regulation. Based on the health effects study, EPA found it was appropriate and necessary; to regulate HAP emissions from utility units under section 112. The December 2000 finding brought mercury emissions fully under the regulatory purview of section 112 MACT standards. Utility units are on the section 112©) major source list, and EPA must establish emission standards for mercury emissions under section 112(d).

In contrast, many industry commenters contended that EPA was correct to revise the determination.

- Commenter 2948 states that nothing in EPA's actions or public statements provided notice to anyone that EPA would list coal- and oil-fired electric utility steam generating units under § 112©) . According to Commenter 3516, EPA's December 2000 listing decision was never justified based on the law or the facts. EPA never sought public input for this list, meaning that EPA never explained or defended its actions. In addition, nothing in the Agency's record justifies a conclusion in favor of EPA's decision to list coal- and oil-fired electric utility steam generating units under § 112©) . Although EPA's Utility RTC did state that mercury was the hazardous pollutant of "greatest concern," it also expressly declined to include a regulatory determination that mercury emissions from coal-fired power plants presented any concerns for public health, delaying any conclusion on that issue to an some undefined future date.
- Two commenters (OAR-2002-0056-2248, -2833) believe the regulatory finding is not final since EPA never subjected its finding to the minimum appropriate process under the Administrative Procedure Act. In particular, although EPA allowed for some public involvement while collecting the data that underlies the 1997 Hg report and 1998 Hg study, the Agency did not allow for public review or comment of its final December 14, 2000, finding. This is an essential element of the regulatory process and it is still well within the discretion of EPA to modify, amend, revise, or retract its December 14, 2000, decision. Since that decision is still subject to court review and is a necessary prerequisite to EPA's

regulation of Hg, the Agency should review and consider the comments it receives on both the December 14, 2000 decision to regulate Hg emissions as well as the proposed rule.

- According to commenter OAR-2002-0056-2867, the revision is not only justified but also required by new information and developments that post-date the original determination.
- Two commenters (OAR-2002-0056-2186, -2867) indicated that EPA's regulatory finding in 2000 is not a final regulatory action. A Federal court found that the EPA finding is not ripe for review until after it promulgates regulations (UARG. v EPA, U.S. App LEXIS 18436, D.C. Cir. 2001). Therefore, whether it is appropriate and necessary to regulate under section 112(d) or otherwise is an open question.
- Commenter 2835 stated that EPA has the legal authority to revise its December 20, 2000 finding that regulation under section 112 is "appropriate and necessary." EPA may promulgate MACT standards for EGUs under section 112(d) only if such regulation is determined to be "appropriate and necessary" under CAA section 112(n)(1)(A). Initially, EPA made such a determination in the Regulatory Finding issued on December 20, 2000. It is clear that EPA's Regulatory Finding was predicated on the conclusion that no other section of the CAA would adequately address the public health risks posed by mercury emissions from coal-fired EGUs and nickel emissions from oil-fired EGUs. The proposed mercury rule, however, signals EPA's intent to change its direction on the best way to regulate power plants. Specifically, EPA states that, upon further analysis, its initial December 2000 determination "lacks foundation" given that another air regulatory program – authorized under section 111 – "would adequately address" mercury and nickel emissions from this source category. This change in direction is well within EPA's authority for the following reasons. First, EPA has strong legal grounds to conclude that its December 2000 Finding was not a final agency action and but rather only a preliminary step in EPA's extended deliberations as to whether to list coal-fired EGUs under Section 112 and develop MACT emissions standards for this source category under that section. In such cases, EPA's decision to change direction and adopt a cap-and-trade program in lieu of MACT standards is ordinarily subject to a highly deferential standard of review. Specifically, EPA is "entitled to a presumption of regularity," and the court cannot "substitute its judgment for that of the agency." However, even assuming that the initial Regulatory Finding was a final agency action, the rationale proffered in the preamble is most likely sufficient to meet the "reasoned analysis" test. It is well established that an agency can change its view of what is in the public interest, even if circumstances do not change; however, a reasoned analysis must be supplied.

In contrast, one commenter (OAR-2002-0056-3537) stated that the CAA did not require that EPA list utility units under section 112(c). The commenter noted that section 112(n)(1)(A) provided EPA broad discretion to address any specific public health risks identified as a result of its Utility Report to Congress. It vested in EPA the ability to develop alternate control strategies under the CAA, other than a mere listing of utility units under section 112(c) and establishment of MACT standards under section 112(d). The commenter submitted that such interpretation was supported

by a plain reading of the statute (i.e., section 112(n)(1)(A)) and the legislative history leading up to the enactment of section 112(n)(1)(A). The commenter concluded that EPA's decision to list utility units rested on an incorrect reading of section 112(n)(1)(A) and must, therefore, be reconsidered and reversed during this rulemaking.

Response:

EPA disagrees with the comments that contend that the Agency cannot remove utility units from the section 112(c) list without meeting the terms of section 112(c)(9). The reasons for the Agency's position are described in the preamble to today's action.

4.0 OTHER LEGAL CHALLENGES

Comment:

Two commenters do not support the regulation of Hg emissions because the 2000 finding was not subject to appropriate public notice and comment under the Administrative Procedure Act (OAR-2002-0056-3530, -3537).

Response:

EPA did not provide notice and an opportunity to comment on the December 2000 regulatory finding because it concluded that this was not necessary since it had previously held public meetings soliciting oral and written comments regarding the regulatory finding and had provided numerous opportunities to comment on matters relating to the Utility Study and the regulatory finding. The EPA also believed that notice and an opportunity to comment was not necessary because ample opportunity to comment on the regulatory determination would be available in the context of the development and adoption of appropriate regulations. Regardless of whether notice-and-comment requirements applied to EPA's December 2000 determination, by virtue of the January 2004 proposed rule, EPA provided a sufficient opportunity for notice and comment on whether Utility Units should be regulated under section 112 on the basis utility HAP emissions.

Comment:

One commenter (OAR-2002-0056-2887) believed that the risk assessment conducted for the Utility RtC was incomplete and inadequate. The commenter contended that EPA did not address 1995 external peer review comments, including a specific request that analyses of other HAP be conducted. Therefore, the record did not support EPA's conclusion that other HAP examined in the Utility RtC did not appear to be a concern for public health. The commenter contended that EPA

could not make the determination that other HAP should be excluded from regulation without completing an adequate risk assessment of HAP emitted from electric utility units. The commenter believed EPA also was obligated to consider the advancements made in risk assessments since 1993-1994 to ensure that the regulatory decision was adequately protective of public health and scientifically defensible. This included an assessment of more recent information on the HAP health effects, cumulative risk associated with all HAP emissions, and inclusion of potentially sensitive subpopulations in the assessment. The commenter stated EPA also should provide a summary of its response to external peer review comments. EPA also needed to correct the summary of the Hg health effects in the proposal preamble that downplays the findings of adverse health effects. The commenter also believed it was important that EPA include recent studies that confirm risks to the developing brain and cardiovascular system from MeHg exposure, and stated that recent studies also linked the neurological changes to decreased nervous system control of heart function.

Response:

The EPA believes that risk assessment conducted for the Utility RtC was both complete and adequate and that the HAP that it was necessary to consider were in fact considered. The HAP that were identified for further study in the Utility RtC were so identified on the basis of a screening analysis. That screening analysis indicated that only 14 of the 67 HAP identified as potentially being emitted by Utility Units were identified as priority for further evaluation. Those 14 HAP were further evaluated. As discussed in detail in the recently signed rule titled 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, EPA believes that the record did support its conclusion that HAP, other than mercury, examined in the Utility RtC did not appear to be a concern for public health. As to the issue of more recently available information, EPA is constantly faced with the dilemma of either having to draw the line regarding the information it is going to consider in the first instance in making key decisions or never being able to make those decisions since new information is generally generated at rapid pace. As a result, EPA often must make decisions based on the information before it at a given point in time in taking a final action and then considers subsequently available information in deciding whether to later revisit that final action. This is one of those situations.

4.3 Effect on Utility Units already permitted pursuant to section 112(g).

Comment:

One commenter notes that some utility units that have been permitted since December 2000 have undergone a 112(g) case by case MACT determination. Guidance is requested as to how the revision of the December 2000 finding affects these determinations that were made based on the December 2000 finding. Guidance is also needed as to application of EPA's once in always in policy. (OAR-2002-0056-2430).

Response:

EPA is not addressing today the issues raised by these comments. The Agency will continue to consider the commenter's suggestion for guidance on the applicability of section 112(g).