

**RESPONSE OF THE UNITED STATES OF AMERICA  
TO SUBMISSION ON ENFORCEMENT MATTERS 04-005  
(COAL-FIRED POWER PLANTS)**

**MADE UNDER ARTICLE 14 OF  
THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION**

**APRIL 25, 2005**

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## INTRODUCTION

This memorandum responds to a request from the Secretariat of the Commission for Environmental Cooperation (“CEC” or “Commission”) that the Government of the United States of America respond to Submission on Enforcement Matters 04-005 (“Coal-fired Power Plants”) under Article 14 of the North American Agreement on Environmental Cooperation (“NAAEC” or “Agreement”).

Submitters allege that the U.S. is failing to effectively enforce Title V of the U.S. Clean Air Act (“CAA”) and sections 303 and 402 of the U.S. Clean Water Act (“CWA”), in connection with mercury emissions to air and direct discharges to water from coal-fired power plants. Pointing to an increase since 1993 in the number of fish consumption advisories for mercury in the U.S., Submitters more specifically assert that the U.S. is insufficiently limiting mercury emissions to air from coal-fired power plants, and is failing to respond adequately under the CWA’s antidegradation and Total Maximum Daily Load (“TMDL”) provisions to the resulting loadings of mercury to water from air deposition. They also assert that the U.S. is failing to effectively enforce the CWA’s National Pollutant Discharge Elimination System (“NPDES”) permitting provisions with respect to point source discharges of mercury from coal-fired power plants to waters of the U.S.

As set forth in more detail in the body of this Response, the United States believes that the relevant facts and law do not support a conclusion that it is failing to effectively enforce its environmental laws. Rather, they point to an extensive and multi-faceted response over many years to effectively enforce and implement these laws and to address the significant risks posed by mercury and other pollutants to human health and the environment.

More specifically, this response describes and clarifies the scope and operation of the relevant provisions of the CAA and CWA, including the role of fish consumption advisories. It notes certain areas where Submitters have misread the relevant statutory and regulatory provisions, which are essential baselines for the analysis. It then reviews in detail the actions the U.S. has taken, and is continuing to take, to effectively enforce and implement these laws, including the recent adoption of two major regulations under the CAA that are directly relevant to Submitters’ concerns.

In this regard, the U.S. acknowledges that domestic coal-fired power plants were the largest unregulated anthropogenic source of mercury under the CAA; however, the United States Environmental Protection Agency (“EPA”) took major actions under the CAA to address mercury emissions from such sources in March 2005. In addition, under the CWA, EPA has updated a test method for monitoring mercury discharges to water with a new method that is 400 times more sensitive. As discussed below, EPA has plans to take other steps under the CWA, which should yield further, and tangible, results in reducing mercury contamination in U.S. waters.

By this submission, the United States also advises the Secretariat that the present matter is the subject of pending and anticipated administrative and judicial proceedings. In line with NAAEC Art. 14.3, this requires that the Secretariat proceed no further on this matter. This is with good reason. It will serve to avoid duplication and the possibility of interference with those proceedings on issues common to those raised by the Submission. It also will provide the appropriate opportunity for pending claims to be considered under domestic law.

### **PROCEDURAL HISTORY**

NAAEC Art. 14 provides that the Secretariat may consider submissions from non-governmental organizations or persons asserting that either Canada, Mexico or the U.S. (“the Parties”) “is failing to effectively enforce its environmental law. . . .” If the Secretariat determines that a submission, in light of any response from the Party concerned, warrants the development of a factual record, the Secretariat is to so inform the governing Council of the Commission, and provide the reasons why it believes that a factual record is warranted. NAAEC Art.15.1. The Secretariat shall prepare a factual record with respect to the submission if the Council, by at least a two-thirds vote, instructs it to do so. NAAEC Art.15.2.

On September 20, 2004, Submitters filed a submission (“Submission”) asserting that the U.S. is failing to effectively enforce provisions of U.S. environmental law, as discussed above, with regard to the deposition in water of mercury air emissions and direct mercury discharges to water from coal-fired power plants. The allegations of the Submission focused on the time period 1993-2003, and sought to encompass the entire U.S.

On December 16, 2004, the Secretariat determined that the Submission was sufficient to allow consideration of assertions regarding the issuance of NPDES permits to certain utilities in Pennsylvania, Kentucky, Illinois, Ohio, and Michigan. However, the Secretariat found the Submission insufficient to allow consideration of the remaining assertions. In accordance with Guideline 6.2 of the Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation (Guidelines), the Secretariat allowed Submitters thirty days to provide a submission that met the criteria of NAAEC Art. 14.1.

Submitters filed a supplemental submission on January 18, 2005. The supplemental submission, denominated as Appendix 12 to the original Submission, focused on ten States: Texas, Alabama, North Carolina, Kentucky, Ohio, Michigan, Illinois, West Virginia, Pennsylvania, and Indiana. (The supplemental submission is referred to herein as “Appendix 12.”)<sup>1</sup> Submitters argued that the focus on these ten States is “exemplary or demonstrative of the larger problem of non-enforcement across the U.S.” Appendix 12 expanded the scope of the

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<sup>1</sup> Unless otherwise noted, references to the “Submission” in this Response encompass the supplementary material in Appendix 12.

allegations to include the time period 1993-December 31, 2004.<sup>2</sup> It also clarified that the basis of Submitters' assertion of a failure to effectively enforce the CAA was CAA Title V. On February 28, 2005, the Secretariat issued a Determination that concluded that the Submission, as supplemented, satisfied NAAEC Art.14 and that it warranted a Response from the U.S. The U.S. subsequently notified the Secretariat pursuant to NAAEC Art. 14.3 that, in light of exceptional circumstances, it would file this Response within 60 days of delivery of that Determination.

### **SUMMARY OF RESPONSE**

The U.S. has carefully reviewed the Submission and examined the laws and programs that it implicates. In line with the provisions of the NAAEC, discussed below, the U.S. believes that the relevant facts and law do not support a conclusion that the U.S. is failing to effectively enforce its environmental laws, and do not warrant the extensive efforts that would be involved in the preparation of a factual record. The major elements of the U.S. analysis are summarized below:

#### **Major Continuing Actions to Reduce Mercury Air Emissions**

Mercury is a highly persistent, toxic pollutant that accumulates in the food chain. Americans are exposed to methylmercury primarily by eating contaminated fish. Because the developing fetus is the most sensitive to the toxic effects of methylmercury, women of childbearing age are regarded as the population of greatest concern. Children who are exposed to methylmercury before birth may be at increased risk of poor performance on neurobehavioral tasks, such as those measuring attention, fine motor function, language skills, visual-spatial abilities, and verbal memory. Cognizant of these risks, over the past decade EPA has taken significant steps to reduce domestic mercury air emissions.

Overall U.S. mercury air emissions were reduced by 45 percent between 1990 and 1999, following the regulation of emissions from several leading categories of sources, such as medical waste incinerators and municipal waste combustors. The Clean Air Interstate Rule (CAIR), which the Agency issued on March 10, 2005, and the Clean Air Mercury Rule (CAMR), which EPA issued on March 15, 2005, will reduce emissions of mercury from coal-fired power plants across the country. EPA estimates that CAIR and CAMR, when fully implemented, will reduce domestic power plant mercury emissions by nearly 70 percent from 1999 levels. These reductions will address Submitters' core concern.

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<sup>2</sup> NAAEC Art.14/15 should not be applied to alleged failures to effectively enforce prior to January 1, 1994, the date of the agreement's entry into force. *See e.g.* Council Resolution 04-05 (C/C.01/05/RES/05/Final) (Aug. 20, 2004) at 2; *Cozumel* (A14/SEM/96-001/07/ADV) (June 7, 1996) at 4. Allegations of prior failures, at most, can inform an analysis of whether the U.S. has reasonably exercised discretion in the enforcement of its environmental laws since the date of entry into force. *See id.*

## **The Role of Fish Consumption Advisories**

As EPA will explain in detail below, the increase in fish consumption advisories for mercury that is at the heart of Submitters' allegations does not, in itself, demonstrate a failure to effectively enforce the CWA as Submitters allege. The increase in fish consumption advisories is due in large part to the steps EPA is taking to address mercury contamination in water. EPA has been working with the States to increase their monitoring of fish tissue and to improve the technical basis of their process for issuing advisories. The increase in fish consumption advisories also is attributable to an increase in the number of assessments of fish tissue and to the States' increasing use of statewide advisories. It does not necessarily indicate that the levels or frequency of mercury contamination are increasing, or any failure to effectively enforce environmental laws.

## **Response to Specific Claims regarding the CAA and CWA**

Submitters' allegations concerning CAA Title V and the CWA's TMDL, antidegradation, and NPDES programs do not demonstrate a failure by the U.S. to effectively enforce its environmental laws.

With regard to the CAA, CAMR and CAIR are major regulatory actions that are expected to result in very significant reductions in mercury air emissions from domestic coal-fired power plants. As is explained in more detail below, a Title V permit collects all substantive air pollution control requirements under the CAA into one permit for affected sources, which include coal-fired power plants. The CAIR and CAMR requirements will be incorporated into Title V permits for affected sources. Contrary to Submitters' assertion, nothing in the CAA or its implementing regulations requires CAA Title V permits to incorporate requirements under the CWA, including terms based on CWA water quality standards or antidegradation policies.

With regard to the TMDL program under the CWA, Submitters' assertions are also misplaced. Among other things, Submitters assert that EPA has failed to use its regulatory authority to require States to establish TMDLs for mercury air emissions where water quality standards are not being met or a beneficial use has been lost, and that EPA is failing to intervene by issuing its own TMDLs where State action is inadequate. Submitters further allege that TMDLs must regulate nonpoint sources of mercury, including air emissions from coal-fired power plants. These assertions rest, however, on a fundamental misunderstanding of the CWA. TMDLs do not regulate sources; they are planning tools. Furthermore, the CWA provides no regulatory mechanism to control nonpoint source pollution, such as air emissions from coal-fired power plants.

With respect to the antidegradation program under the CWA, the Submission likewise asserts that EPA has failed to effectively enforce the CWA, allegedly by approving inadequate State antidegradation policies and failing to require States to control mercury air emissions as nonpoint sources of pollution. Here, too, Submitters base their assertions on a misreading of the law. The CWA does not authorize EPA to regulate, or compel States to regulate, nonpoint



sources of pollution. As a result, under the CWA, State antidegradation policies serve to protect water quality when point sources of pollution are being permitted. They are not required to control nonpoint sources of pollution.

With respect to Submitters' allegations regarding EPA's implementation of the NPDES program under the CWA, Submitters again misread the law. The CWA does not, as Submitters assert, prohibit point source discharges to an impaired waterbody. However, EPA has taken, and plans to take, additional steps nationwide to help State and EPA authorities better monitor and address, through permitting actions, direct point source discharges of mercury. EPA has published a new recommended section 304(a) water quality criterion for methylmercury and is in the process of drafting guidance that will address State adoption of revised water quality criteria for methylmercury and implementation of revised criteria in TMDLs and NPDES permits, including approaches for addressing waterbodies where much of the mercury comes from atmospheric sources. EPA also will recommend that permitting authorities require facilities to monitor mercury discharges to water using EPA's new, far more sensitive method for detecting mercury in effluent. EPA's new more sensitive test method uses the most current science to enable monitoring and detection of more mercury contaminated waters than ever before, and to enable EPA and the States to take faster action to impose effluent limits in the NPDES permits of mercury dischargers, and subsequently monitor those discharges. EPA also intends to propose revisions to its permit application requirement regulations for industrial discharges and associated permit application forms to require specifically the use of the new method wherever mercury monitoring is required. Finally, EPA commits to reviewing closely the renewal of the approximately 40 permits identified by Submitters for coal-fired power plants that have reported significant discharges of mercury to water under the Toxic Release Inventory.

### **Provisions of the NAAEC, and Next Steps**

The North American Agreement on Environmental Cooperation (NAAEC) contains a number of provisions and criteria that guide the Secretariat in determining whether to recommend to the Council that a factual record be developed. The analysis above must be considered within this framework.

First, NAAEC Art. 45.1 provides that a Party has not failed to effectively enforce its environmental law if its actions “reflect[] a reasonable exercise of discretion in respect of . . . regulatory matters.” The U.S. submits that its regulatory efforts, under both the CAA and CWA, directed at emissions of mercury from coal-fired power plants, reflects precisely such a reasonable exercise of its regulatory discretion, in the context of laws that contain multiple requirements and deadlines for regulatory actions to be undertaken for myriad sources, including coal-fired power plants. This point is discussed in detail below.

Second, in past cases under NAAEC Art. 14, the Secretariat has determined that the preparation of a factual record is not warranted where there is a legally complex situation that is

dynamic and improving. Both the reasoning and conclusion of these past cases applies directly to the present situation with regard to mercury emissions from coal-fired power plants in the U.S.

Third, Submitters' allegations are the subject of pending judicial and administrative proceedings in the United States. The NAAEC is very clear on this point: when a Party advises the Secretariat that this is the case, the Secretariat shall proceed no further.

In addition, the discussion will show that there are ample private remedies available under U.S. law to address the issues raised by the Submitters. This is not a case where domestic avenues of recourse are unavailable or out of reach; on the contrary, Submitters have numerous avenues to pursue their claims under domestic law.

For the foregoing reasons, which are explained in greater detail below in separate sections addressing the NAAEC, the CAA, and the CWA, the United States respectfully submits that the Secretariat should determine that the development of a factual record is not warranted.

## **DETAILED DISCUSSION**

### **I. NAAEC – BACKGROUND AND DISCUSSION**

#### **A. Relevant Provisions Of The Agreement**

A fundamental issue in the present matter is whether the Secretariat should determine that the development of a factual record is warranted, and so inform the Council. *See* NAAEC, Art. 15.1.

In this regard, NAAEC Art. 14.3(a) provides that if a Party advises the Secretariat that “the matter is the subject of a pending judicial or administrative proceeding ... the Secretariat shall proceed no further.” In other words, if this provision applies, the Secretariat must determine that work on a factual record should not go forward.

In addition, NAAEC Art. 45.1 sets forth a key definition relevant to the analysis of Submissions and Responses in Art. 14/15 proceedings. It specifies that:

- A Party has not failed to ‘effectively enforce its environmental law’ . . . in a particular case where the action or inaction in question by agencies or officials of that Party:
- (a) reflects a reasonable exercise of their discretion in respect of investigatory, prosecutorial, regulatory or compliance matters; or
  - (b) results from *bona fide* decisions to allocate resources to enforcement in respect of other environmental matters determined to have higher priorities.

NAAEC Art. 45.1(a)-(b).

Several other NAAEC provisions also point implicitly to evaluation criteria that may inform the Secretariat's consideration regarding whether the preparation of a factual record is warranted. For example, NAAEC Art. 14.2 specifies that, in determining whether to request a Party response, the Secretariat should be guided by, among other things, whether "the submission, alone or in combination with other submissions, raises matters whose further study in [the Art. 14/15] process would advance the goals of [the NAAEC]," and whether "private remedies available under the Party's law have been pursued. NAAEC Art. 14.2(b)-(c).

NAAEC Art. 14.3(b) calls upon the Parties, in responding to a submission, to advise the Secretariat of such factors as (1) whether "the matter was previously the subject of a judicial or administrative proceeding" and (2) whether "private remedies in connection with the matter are available to the person or organization making the submission and whether they have been pursued." The specific mention of these considerations in the Agreement indicates that they should be given great weight by the Secretariat in its review of a Response by a Party and, correspondingly, in its determination whether a factual record is warranted.

Similarly, NAAEC Art. 14.1 identifies several issues that inform the Secretariat's consideration of a submission. These issues include, for example, whether the submission "indicates that the matter has been communicated in writing to the relevant authorities of the Party . . . ." NAAEC Art 14.1(d)-(e). Although these criteria are applied in evaluating a submission at the threshold, NAAEC Art. 14(1) does not limit the timeframe or procedural posture in which the Secretariat may consider them. Accordingly, if a Party's response offers information bearing on these issues, the Secretariat may reasonably take that further information into account in determining whether to recommend the preparation of a factual record.

## **B. Relevant Provisions Of The Guidelines**

The Guidelines also bear on the evaluation criteria to be applied. Among the relevant provisions is Guideline 7.5, which instructs that, with regard to whether available private remedies have been pursued, the Secretariat is to be guided by whether:

- (a) requesting a response to the submission is appropriate if the preparation of a factual record on the submission could duplicate or interfere with private remedies that are being pursued or have been pursued by the Submitter; and
- (b) reasonable actions have been taken to pursue such remedies prior to initiating a submission, bearing in mind that barriers to the pursuit of such remedies may exist in some cases.

Guideline 7.5(a)-(b).

The presumption in Guideline 7.5(b) favors recourse to available private remedies. This presumption is implicit in the instruction that the Secretariat should bear in mind that barriers to the pursuit of private remedies *may* exist in *some* cases, implying that, in most cases, such barriers should not be lightly inferred.

Also relevant is Guideline 9.3. This provision recognizes that a Party “may include in its response whether environmental policies have been defined or actions have been taken in connection with the matter in question.” This question, therefore, clearly informs the evaluation to be undertaken.

### C. Precedent

The Secretariat’s review of previous Art. 14/15 submissions also informs the applicable evaluation criteria. For example, in *Ontario Power Generation* (A14/SEM/03-001/39/15(1)) (May 28, 2004), the Secretariat rested its determination not to prepare a factual record regarding Canada’s exercise of discretion under section 166 of the Canadian Environmental Protection Act on the ground that, in light of the “dynamic and improving situation in regard to” control of emissions from coal-fired power plants alleged to settle into water, no “central question regarding the Environment Minister’s exercise of the discretion given him” could be identified that would warrant development of a factual record. *Id.* at 11.

The Secretariat’s determination in *Great Lakes* (A14/SEM/98-003/24/15(1)) (Oct. 5, 2001) also is instructive. There, the Secretariat determined not to prepare a factual record regarding assertions of ineffective U.S. enforcement of CAA § 115, on the ground that, following the U.S. response, no “central question” was left open “regarding whether the United States [was] ineffectively addressing an ongoing environmental violation under § 115 or exercising its discretion in a manner legally contrary to § 115.” *Id.* at 23. Informing this decision was the Secretariat’s determination that the U.S. response “ma[de] clear that the dioxin and mercury emissions scenario at issue . . . [was] not static; it [was] changing, and it [was] significantly improving.” *Id.* at 22. The Secretariat highlighted that “efforts . . . still underway in the United States to reduce mercury and dioxin emissions from incinerators” would likely complicate any attempt to render findings concerning the implementation of CAA § 115. *Id.* For example, the Secretariat emphasized that “it would be difficult to determine” whether measures “that might be imposed as a result of § 115 would result in any significant improvement in public welfare in Canada beyond whatever improvement is being achieved, and will continue to be achieved, as a result of the United States’ current and ongoing efforts to reduce dioxin and mercury emissions.” *Id.*

These precedents strongly suggest that, where the regulatory scenario at issue is improving, and the Party’s response does not leave open a central question concerning that scenario, the recommendation of a factual record is not appropriate.

## **II. CLEAN AIR ACT – BACKGROUND AND DISCUSSION**

In their January 18, 2005 response to the Secretariat’s December 16, 2004 determination, Submitters included a specific allegation concerning the U.S. Clean Air Act, which the U.S. Congress enacted in 1970, and substantially amended in 1977 and 1990. *See* 42 U.S.C. §§ 7401-7671q. Specifically, Submitters argue that EPA has failed to implement properly Title V of the CAA, citing permits for two coal-fired power plants, which they append to their January 2005 Submission, and alleging that neither permit requires mercury reductions nor mentions federal water quality standards or antidegradation requirements under the CWA. *See* Appendix 12, at 8. As explained below, Submitters’ Title V argument is premised on a fundamental misunderstanding of the requirements of the CAA.

Submitters also discuss the CAA in connection with their allegations that EPA has purportedly failed to enforce the CWA – a separate federal environmental statute. *See* Appendix 12, at 10; *see also* Section III (responding to Submitters’ CWA allegations). Submitters’ characterization of the actions EPA has taken under the CAA with regard to controlling domestic mercury emissions is inaccurate and incomplete. We begin our discussion below with the statutory background concerning the CAA and some important background concerning the relationship between domestic coal-fired power plant mercury air emissions and the total global pool of mercury air emissions. We next summarize the substantial actions EPA has taken under the CAA to reduce mercury air emissions from domestic sources since 1990, which is when Congress last amended the statute. The summary of actions EPA has taken to date under the CAA to control domestic air mercury emissions is divided in two parts, the first of which addresses domestic sources other than coal-fired power plants, and the second of which addresses coal-fired power plants that are the focus of the Submission. Following this important background information, we respond to Submitters’ CAA Title V allegations.

### **A. Statutory Background**

The CAA establishes a comprehensive program for controlling and improving the nation’s air quality through State and federal regulation. There are two primary aspects of the CAA that are relevant to the Submission: the provisions of Title I and Title V.

#### **1. Title I of the CAA**

Title I of the CAA contains an important provision designed to address emissions of hazardous air pollutants (“HAP”) from certain sources. *See* CAA section 112, 42 U.S.C. § 7412. There are three different types of sources at issue under section 112: major sources, area sources, and electric utility steam generating units (“power plants”). *Id.* §§ 7412(a)(1), (a)(2), (a)(8). A “major source” is any stationary source<sup>3</sup> or group of stationary sources at a single location and

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<sup>3</sup> A “stationary source” of hazardous air pollutants is any building, structure, facility or installation that emits or may emit any air pollutant. *See* CAA sections 111(a)(3), 112(a)(3), 42 U.S.C. §§ 7411(a)(3), 7412(a)(3).

under common control that emits or has the potential to emit ten tons or more per year of any HAP included on the section 112(b) HAP list, or 25 tons or more per year of any combination of HAP included on the section 112(b) list. *Id.* § 7412(a)(1). A stationary source of HAP that is not a “major source” is an “area source.” *Id.* § 7412(a)(2). Finally, a power plant is any “fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale.” *Id.* § 7412(a)(8). Congress treated power plants differently from major and area sources and provided entirely different criteria for determining whether such plants should be regulated under CAA section 112.

Congress required EPA to regulate “major sources” under CAA section 112 if at least one stationary source in the category meets the definition of a major source – *i.e.*, if a certain amount of a HAP (or combination of HAP) is emitted from the source. CAA section 112(a)(1), (c)(1), 42 U.S.C. § 7412(a)(1), (c)(1). By contrast, EPA is required to list categories or subcategories of area sources only if they meet one of the following statutory criteria: (1) EPA determines that the category of area sources presents a threat of adverse effects to human health or the environment that warrants regulation under CAA section 112; or (2) the category of area sources falls within the purview of CAA section 112(k)(3)(B) (the Urban Area Source Strategy). *Id.* § 7412(c)(3). EPA has published a list of major and area sources that meet the statutory criteria for regulation under CAA section 112. 57 Fed. Reg. 31,576 (July 16, 1992). For any source category that meets the statutory criteria for regulation under section 112, the next step under section 112 is the establishment of emission standards. See CAA section 112(d), (f), 42 U.S.C. § 7412(d), (f).

The criteria for regulating major and area sources under section 112 do not apply to power plants. Congress enacted a special provision for power plants in CAA section 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A). That provision directs EPA to conduct a study to evaluate what “hazards to public health [are] reasonably anticipated to occur” as the result of HAP emissions from domestic power plants “*after* imposition of the requirements of th[e] Act,” and to report the results of such study to Congress by November 15, 1993. CAA section 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (emphasis added). Section 112(n)(1)(A) further provides that EPA shall regulate domestic power plants under section 112 if the Administrator determines, considering the results of the study, that such regulation is “appropriate and necessary.” *Id.* Congress provided no deadline by which such determination must be made. Section 112(n)(1)(A) is unique in two respects. First, it is the only provision in CAA section 112 that directs EPA to examine the effect that other requirements of the CAA would have on domestic power plant HAP emissions, including mercury. Second, it vests EPA with discretion to determine whether regulation of power plants under CAA section 112 is both appropriate and necessary.<sup>4</sup>

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<sup>4</sup> There are several other provisions of the CAA that are relevant to controlling air emissions of mercury from domestic sources. Those provisions include, for example, the nonattainment provisions in Title I, which are the provisions designed to assure that States are in compliance with the national ambient air quality standards, the requirements for standards of performance for sources regulated under CAA section 111, the requirements for solid waste combustors in CAA section 129, and the requirements for power plants set forth in Title IV of the Act. *See, e.g.*, CAA sections 108-110, 111, 112, 129, 401-416, 42 U.S.C. §§ 7408-110, 7411, 7412, 7429, 7651-7651o. Some of these provisions authorize the direct regulation of mercury

## 2. Title V of the CAA

The other aspect of the CAA that is most relevant to the Submission is Title V. In 1990, Congress enacted Title V, which for the first time required major sources and certain area sources of air pollution to obtain operating permits to ensure compliance with the CAA's substantive air quality control requirements, generally known as "applicable requirements." *See* H.R. Conf. Rep. No. 101-952, *reprinted in* 1990 U.S.C.C.A.N. 3867, 3877 (1990) (discussing Title V and stating, "The conference agreement includes provisions that require various sources of air pollution *to obtain operating permits which would ensure compliance with all applicable requirements of the Clean Air Act.*") (emphasis added). "Applicable requirements" include, for example, emission standards and other requirements under CAA sections 111 and 112. *See* 40 C.F.R. § 70.2; *see also* CAA sections 502, 504, 42 U.S.C. §§ 7661a, 7661c. Stated differently, Title V permits consolidate the substantive air quality control requirements found in other parts of the CAA into a single comprehensive document for each source. Indeed, a primary purpose of the Title V program is to enable the source, EPA, State and local permitting authorities, and the public to better understand the air emission requirements applicable to the source and whether the source is meeting those requirements. *See* 57 Fed. Reg. 32,250, 32,251 (July 21, 1992) (final rule promulgating EPA's Title V implementing regulations, 40 C.F.R. Part 70). Title V generally does *not* impose new air pollution control requirements on sources, although it does provide for the creation of certain types of monitoring, recordkeeping and other requirements if necessary to assure compliance with the substantive emissions standards and other applicable requirements under the CAA. *See* 40 C.F.R. §§ 70.1(b), 70.2.

In Title V, Congress created a federal-state partnership for issuing operating permits. *See* CAA section 502, 42 U.S.C. § 7661a. Congress directed EPA to promulgate regulations establishing the minimum elements of a Title V operating permits program. *Id.* § 7661a(b) (articulating ten minimum elements for State programs). These regulations are codified at 40 C.F.R. Part 70 and are often referenced as "Part 70." Congress required each State to develop and submit to EPA for approval an operating permit program that meets the requirements of the Act and Part 70. *Id.* § 7661a(d)(1). After EPA approves a State's Title V permit program, EPA maintains an oversight role. *See Id.* § 7661a(i). In areas that do not have an approved State or Tribal Title V program, EPA administers the operating permit program as a federal program pursuant to regulations set out in 40 C.F.R. Part 71. *See Id.* § 7661a(d)(3). Sources subject to Title V may not operate without, or in violation of, an operating permit that contains all applicable CAA requirements. *Id.* § 7661a(a).

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from domestic sources. Other provisions, such as the nonattainment provisions of Title I and the requirements of Title IV of the CAA, require reductions in pollutants such as sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>). As explained further below, the control technology needed to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions from power plants also reduces emissions of many HAP, including mercury, from such plants, and, as such, these provisions of the CAA are relevant to the control of domestic mercury emissions.

Finally, Title V sets up a comprehensive program for public involvement. In particular, the public can comment on any initial permit application, permit renewal, or significant modification of a permit. 40 C.F.R. § 70.7(h). In addition, any interested member of the public can petition EPA to object to a CAA Title V permit. CAA section 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). Title V also provides certain appeal rights, including, but not limited to, the right to sue EPA in the relevant federal court of appeals if EPA denies a petition to object to a Title V permit. CAA sections 505(b)(2), 307(b)(1), 42 U.S.C. §§ 7661d(b)(2), 7607(b)(1); *see also* CAA section 502(b)(6), 42 U.S.C. § 7661a(b)(6).

## **B. Mercury Emissions Domestically and Globally**

Under the CAA, EPA regulates numerous pollutants from multiple source categories, including mercury from coal-fired power plants. Mercury is a naturally occurring element in the earth's crust, which is emitted into the atmosphere in different ways, including by human-caused ("anthropogenic") activities, natural processes (such as volcanic eruption, groundwater seepage and evaporation from the oceans), and re-emissions, which are mercury air emissions that were originally deposited to the earth's surface and then re-emitted into the atmosphere. *See* United Nations Environment Programme Global Mercury Assessment, 2002; U.S. EPA Mercury Study Report to Congress, 1997.

EPA began analyzing domestic mercury emissions in the early 1990s, following the U.S. Congress' revision of the CAA in 1990. In 1997, EPA issued a mercury report to the U.S. Congress that addressed all domestic anthropogenic sources of mercury emissions, including, but not limited to, mercury emitted from domestic coal-fired power plants. *See* <http://www.epa.gov/mercury/report.htm>. EPA prepared a second report to the U.S. Congress in 1998.<sup>5</sup> This report focused on emissions of hazardous air pollutants, including mercury, emitted by domestic power plants. Through these reports, EPA recognized the unique nature of mercury and that mercury, unlike traditional criteria pollutants (such as nitrogen oxides (NO<sub>x</sub>), sulfur dioxides (SO<sub>2</sub>), and particulate matter (PM)), exists in multiple phases (or states) within the combustion system of a coal-fired power plant, which complicates the ability of a control technology to remove mercury and complicates the ability to monitor whether mercury has indeed been removed from the flue gas.

After completion of the 1997 and 1998 reports to Congress, EPA exercised its authority under CAA section 114, 42 U.S.C. § 7414, and issued a comprehensive information request to the entire coal-fired power plant sector. Specifically, under the request, EPA sought information from all coal-fired power plants in the United States concerning the amount of mercury in the coal used by each plant. EPA then selected a representative number of combustion units (about 80), and requested that the owner or operator of the source at issue provide EPA additional detailed information concerning speciated mercury emissions from the identified units. As a result of the

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<sup>5</sup> *See* <http://www.epa.gov/ttn/atw/combust/utiltox/eurtc1.pdf>; <http://www.epa.gov/ttn/atw/combust/utiltox/eurtc1.pdf>.



1999 information collection request, EPA has a comprehensive speciated mercury emissions inventory database for domestic coal-fired power plants. Emissions from domestic coal-fired power plants cannot be viewed in a vacuum, however. Instead, they should be viewed in the context of the global mercury pool.

The United Nations Environment Programme has estimated that the annual total global mercury emissions from all sources, natural and anthropogenic, are between approximately 4,400 to 7,500 metric tons. United Nations Environment Programme, Global Mercury Assessment, 2002 (“UNEP Report”), see <http://www.chem.unep.ch/mercury/Report/GMA-report-TOC.htm>. These estimates are highly uncertain, however, due to the complexity of quantifying global emissions. UNEP Report at 101, Section 6.3.6. Based on these estimates, U.S. anthropogenic mercury emissions are estimated to account for approximately three percent of the global pool of mercury emissions, and U.S. coal-fired power plants are estimated to account for about one percent of the total global pool. *Id.*; 70 Fed. Reg. 15,994, 16,028 (Mar. 29, 2005); 69 Fed. Reg. 4652, 4658 (Jan. 30, 2004). Thus, even though there is uncertainty with the global mercury estimates, U.S. domestic coal-fired power plant mercury emissions nevertheless represent only a small fraction of the global pool.

Although domestic coal-fired power plants represent a small portion of the global mercury pool, EPA has undertaken significant efforts to control such emissions. Those efforts are described in detail in the next section. EPA has recognized the importance of controlling mercury from coal-fired power plants, and as noted above, has been studying and analyzing such emissions for many years. In addition to studying mercury, EPA, through its Office of Research and Development, has worked with the Department of Energy to promote the development and testing of mercury-specific removal technologies over the past several years. Moreover, since 1990, EPA has issued several significant regulations under the CAA requiring control of particulate matter, SO<sub>2</sub> and NO<sub>x</sub> from power plants. As noted above, the control of SO<sub>2</sub> and NO<sub>x</sub> also results in reductions of mercury because of the control technologies employed to obtain the SO<sub>2</sub> and NO<sub>x</sub> reductions. Indeed, in the 1998 report to Congress, EPA stated that analyses performed as of that date “indicate[d] that mercury emissions in 2010 may be reduced by approximately 16 percent (11 tpy [tons per year]),” over those projected in the 1998 report to Congress, due to EPA’s 1997 national ambient air quality standards for particulate matter and ozone issued pursuant to Title I of the CAA. *See* 70 Fed. Reg. 16,003 (citing 1998 Utility report to Congress). Thus, as of 1998, EPA had projected that certain CAA regulations would lead to reductions of mercury from domestic coal-fired power plants. EPA has continued its analysis of mercury, however, and the recently issued CAIR and CAMR represent the culmination of that extensive analysis and inquiry. These two rules together will significantly reduce domestic mercury emissions to air and will, in particular, reduce the form of mercury (*i.e.*, oxidized mercury) that contributes most significantly to localized and regionalized atmospheric deposition.

Cognizant of EPA’s CAIR and CAMR rulemaking actions, the Submitters focus on the 1997 report to Congress, noting that the report estimates that approximately 60 percent of mercury deposited in the U.S. originates within the U.S. Submission, at 5. This estimate is

outdated. First, the estimate is based on outdated emissions inventories, which do not reflect the current state of mercury emissions domestically or internationally. Second, the number identified in the 1997 report to Congress concerns deposition resulting from all domestic anthropogenic sources, not just domestic coal-fired power plants. As explained further below, EPA has issued several regulations under the CAA since 1997, which have resulted in significant reductions of domestic mercury, including a 45 percent reduction in domestic mercury emissions between 1990 and 1999. EPA also has conducted significant investigation and analyses concerning mercury emissions from coal-fired power plants since 1997. Indeed, EPA's recent analyses estimate that domestic coal-fired power plant deposition represents less than 10 percent of total U.S. deposition. See <http://www.epa.gov/air/mercuryrule/charts.htm>. EPA's analyses also estimate that about a quarter of domestic coal-fired power plant emissions deposit within the United States. *Id.*

### **C. Actions EPA Has Taken To Control Domestic Air Mercury Emissions Under the CAA Since 1990**

Since 1990, EPA has implemented the CAA to address significant domestic sources of mercury emissions. In this section, we first address the actions EPA has taken under the CAA concerning domestic sources of anthropogenic mercury emissions other than power plants. We next discuss the recent regulations EPA finalized to control mercury emissions from domestic coal-fired power plants.

In reviewing the substantial actions that EPA has taken under the CAA to control mercury emissions from domestic sources, it is important to be mindful of the structure of the CAA, and, in particular, the numerous deadlines that Congress imposed under the Act. For example, in CAA section 129, Congress required EPA to issue by November 15, 1991, section 111 standards of performance for certain solid waste incineration units, which, among other things, emit, mercury. CAA section 129, 42 U.S.C. § 7429. In that same statutory section, Congress required EPA to issue other standards for solid waste incinerators by November 15, 1992, and November 15, 1993, respectively. *Id.* Congress also set multiple deadlines under Title IV of the CAA, which applies directly to coal-fired power plants. See, e.g., CAA sections 403-407, 42 U.S.C. §§ 7561b-7561f (requiring EPA to take multiple actions affecting power plants between 1991 and 2000). EPA has worked diligently to meet the numerous deadlines in the CAA. Those deadlines, and any revised deadlines as contained in court orders, consent decrees and settlement agreements, have guided the Agency's schedule for taking action under the CAA. EPA believes that it has reasonably exercised its discretion in meeting the multiple requirements under the CAA that apply to myriad sources, including coal-fired power plants.

#### **1. EPA's Actions to Control Mercury Emissions from Domestic Sources Other Than Coal-fired Power Plants**

EPA has made substantial progress over the last decade in addressing mercury emissions from domestic sources other than power plants ("domestic non-power plant sources"). For

example, EPA has completed a list identifying the major and area source categories that are to be regulated under section 112. *See* 57 Fed. Reg. 31,576 (July 16, 1992). EPA has also issued section 112 emission standards for all major source categories on that list that emit HAP, including mercury. Those regulations have resulted in important mercury reductions. EPA has further issued important standards pursuant to CAA sections 111 and 129, that have resulted in significant mercury reductions from domestic non-power plant sources. *See* discussion of regulations concerning Municipal Waste Combustors and Municipal Waste Incinerators, below. Indeed, as the result of EPA regulatory efforts under the CAA, the U.S. achieved a 45-percent reduction in domestic mercury emissions between 1990 and 1999. *See* Attachment A, Trends in Mercury Air Emissions Between 1990 and 1999 (comparing a total of about 210 tons per year of domestic anthropogenic mercury emissions in 1990 to 113 tons per year in 1999). EPA has issued additional regulations since 1999 for non-power plant domestic sources that will also result in important reductions of domestic air mercury emissions. *See, e.g.*, discussion of regulations concerning Industrial Boilers, Chlor-alkali Plants, and Hazardous Waste Combustors, below.

We provide below a brief overview of the significant regulations issued under the CAA to control anthropogenic mercury emissions from domestic non-power plant sources. All of the requirements described below were issued under CAA sections 111, 112, or 129, and constitute applicable requirements within the meaning of Title V of the CAA and EPA's implementing regulations. *See* 40 C.F.R. § 70.2 (defining an "applicable requirement" for purposes of CAA Title V). Accordingly, any source subject to Title V must obtain an operating permit that incorporates the following requirements applicable to the source. *Id.* §§ 70.2-70.6; *see* CAA section 502(a), 504(a), 42 U.S.C. §§ 7661a(a), 7661c(a).

**a. Municipal Waste Combustors**

In 1995, EPA promulgated final regulations that apply to all new and existing waste-to-energy plants and incinerators with the capacity to burn more than 250 tons of municipal solid waste, including garbage, per day. *See* 60 Fed. Reg. 65,415 (Dec. 19, 1995), codified at 40 C.F.R. Part Cb. Those regulations cover approximately 130 existing waste-to-energy plants and incinerators, and any new plants and incinerators built in the future. The regulations have reduced emissions of a number of HAP, including mercury, by approximately 145,000 tons per year. Significantly, the regulations have resulted in about a 90 percent reduction in mercury emissions from domestic municipal waste combustors, based on 1990 emissions levels. *See* Attachment A, Trends in Mercury Air Emissions Between 1990 and 1999 (56.7 tons per year of mercury emitted from domestic municipal waste combustors in 1990 versus 4.9 tons per year in 1999).<sup>6</sup>

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<sup>6</sup> As EPA explained in detail in response to comments in support of the final CAMR, experience gained through the use of mercury-specific control technologies on municipal waste combustors is not directly transferrable to coal-fired power plants. *See* <http://www.epa.gov/ttn/atw/utility/utiloxpg.html>.

**b. Medical Waste Incinerators**

Medical waste incinerators (MWIs) are used by hospitals, health care facilities, and commercial waste disposal companies to dispose of hospital waste and medical or infectious waste. EPA adopted regulations controlling mercury emissions from MWIs on September 15, 1997 (62 Fed. Reg. 48,348, codified at 40 C.F.R. part 60, subpart Ce). EPA estimated that the regulations would reduce mercury emissions from these facilities by about 90 percent, with all existing MWIs required to comply with the regulations by September 15, 2002. *See* Attachment A, Trends in Mercury Air Emissions Between 1990 and 1999 (49.7 tons per year of mercury emitted from domestic municipal waste incinerators in 1990 versus 1.6 tons per year in 1999). At the time the regulations were issued, EPA expected that 50 percent to 80 percent of the 2,400 then-existing medical waste incinerators would close in response to the rule. In fact, EPA's rule resulted in a significant change in medical waste disposal practices in the U.S. Because of the increased cost of on-site incineration under the final rule, few health care facilities are likely to install new MWIs and many health care facilities have discontinued use of their existing MWIs. Instead they have switched to other methods of waste disposal such as off-site commercial waste disposal. EPA expected the standards to apply to between 10 and 70 new MWIs, most of which would employ mercury control technology, by the compliance deadline.

**c. Chlor-Alkali Plants**

On December 19, 2003, EPA issued final regulations to reduce mercury emissions from chlorine production plants that rely on mercury cells. *See* 68 Fed. Reg. 70,904, codified at 40 C.F.R. part 63 subpart IIII. The regulations impose requirements for more stringent work practice limits, representing the best practices from the industry, than were required by a pre-existing regulation that covered this source category. Today, there are nine such plants in the U.S., as compared to 20 when work on the rule began. The regulations, which require a combination of controls for point sources, such as vents, and management practices to address fugitive air emissions, will reduce mercury air emissions from existing chlor-alkali plants by about 50 per cent by the compliance date of December 19, 2006. In addition, EPA is initiating a study of fugitive mercury emissions at existing chlor-alkali plants, which could result in the proposal of further regulatory changes in the future.

**d. Industrial Boilers**

In September 2004, EPA issued a final rule to limit emissions of HAP, including mercury, from new and existing industrial, commercial, and institutional boilers and process heaters ("ICI boiler and process heaters") at major sources. 69 Fed. Reg. 55,218 (Sept. 13, 2004), codified at 40 C.F.R. Part 63, Subpart DDDDD. ICI boilers and process heaters burn coal and other

substances such as wood to produce steam to generate electricity or mechanical energy and to provide heat. ICI boilers and process heaters are used at facilities such as refineries, chemical and manufacturing plants, and paper mills. In addition, boilers may stand alone to provide heat for shopping malls and university heating systems. EPA promulgated emissions limitations for mercury for all new solid fuel boilers and process heaters and for large existing solid fuel units. EPA expects that this rule will reduce total emissions of HAP from regulated sources by 50,000 to 58,000 tons per year. 69 Fed. Reg. at 55,218, 55,244. The largest segment of emissions and projected emissions reductions from these sources involve hydrogen chloride. However, EPA expects that the standards will reduce mercury emissions from new and existing facilities by about 2 tons per year. *Id.* at 55,244.

**e. Hazardous Waste Combustors**

In 1999 and 2002, EPA established standards for HAPs, including mercury, for incinerators, cement kilns, and lightweight aggregate kilns that burn hazardous waste. These standards are found at 40 C.F.R. § 63.1203 (a)(2) and (b)(2) (mercury standards for existing and new hazardous waste-burning incinerators), § 63.1204 (a)(2) and (b)(2) (mercury standards for existing and new hazardous waste-burning cement kilns), and § 63.1205 (a)(2) and (b)(2) (mercury standards for existing and new hazardous waste-burning lightweight aggregate kilns). The 1999 rule was estimated to reduce total U.S. anthropogenic mercury emissions by approximately three percent. 64 Fed. Reg. 52,828, 53,011 (Sept. 30, 1999).

**2. EPA's Recent Actions to Reduce Mercury Emissions from Domestic Coal-Fired Power Plants**

In March 2005, EPA signed two final rules that will result in significant reductions of mercury emissions from domestic coal-fired power plants. The first rule – called the Clean Air Interstate Rule (“CAIR”) – implements CAA section 110(a)(2)(D). See <http://www.epa.gov/cair/rule.html>. This rulemaking, among other things, requires 26 eastern States and the District of Columbia to develop State implementation plans under the CAA that provide for substantial reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions. Although affected States retain flexibility to decide how to achieve those emission reductions, EPA has concluded that obtaining the reductions from power plants is highly cost-effective. EPA therefore anticipates that affected States will meet their emission reduction obligations by controlling power plant emissions through the two-phase cap-and-trade approach provided in the final rule, the first phase of which occurs in 2010 and the second in 2015. EPA also concluded that the technologies that most cost-effectively achieve SO<sub>2</sub> and NO<sub>x</sub> reductions for power plants are scrubbers for SO<sub>2</sub> and selective catalytic reduction (“SCR”) for NO<sub>x</sub>. These technologies, once implemented, not only reduce SO<sub>2</sub> and NO<sub>x</sub>, they also provide important reductions of mercury emissions from domestic coal-fired power plants.

EPA modeled the domestic coal-fired power plant mercury emissions that would remain after implementation of CAIR. In that modeling, EPA reasonably assumed that States would obtain the required reductions of SO<sub>2</sub> and NO<sub>x</sub> in the most cost-effective manner by controlling power plants, and that power plants, in turn, would install the most cost-effective technologies (*i.e.*, scrubbers for SO<sub>2</sub> and SCR for NO<sub>x</sub>). EPA's modeling projects that mercury emissions from domestic coal-fired power plants would be 38.0 tons in 2010, 34.4 tons in 2015, and 34.0 tons in 2020. *See* 70 Fed. Reg. 15,994, 16,011 (Mar. 29, 2005). CAIR, once fully implemented, therefore, will result in about a 30 percent reduction in mercury emissions from domestic coal-fired power plants, which is a reduction from a 1999 baseline of 48 tons.

The second rule EPA recently signed that will result in even greater mercury reductions from domestic coal-fired power plants is called the Clean Air Mercury Rule ("CAMR"). *See* <http://www.epa.gov/ttn/atw/utility/utiltoxpg.html>. That final rule implements CAA section 111. The rule establishes standards of performance for new and existing coal-fired power plants and requires compliance with a two-phase nationwide cap on mercury emissions. The first phase cap under CAMR (effective in 2010) is 38 tons per year ("tpy"), and the second phase cap (effective in 2018) is 15 tpy. Facilities must demonstrate compliance with the standards of performance by holding one "allowance" for each ounce of mercury emitted in any given year. Allowances are readily transferrable among all regulated units. CAMR, once fully implemented, will result in about a 70 percent reduction in mercury emissions from domestic coal-fired power plants, which is a reduction from a 1999 baseline of 48 tons. Insofar as existing sources are concerned, the final section 111 rule will, for the most part, be implemented by the States, rather than EPA. (EPA has authority under section 111(d) to implement CAMR in States which themselves fail to adopt programs to implement the final rule for existing sources.)

EPA issued a third final rule in March 2005 pursuant to CAA section 112 (the "Section 112 rule"), which is related to the above rules. *See* 70 Fed. Reg. 15,994 (Mar. 29, 2005) (rule revising December 2000 regulatory finding and removing coal- and oil-fired power plants from the section 112(c) list). In the final Section 112 rule, EPA concluded that it was neither appropriate nor necessary to regulate domestic power plants under CAA section 112. EPA reached this conclusion largely because of the mercury reductions from domestic coal-fired power plants that will be achieved under CAA sections 110(a)(2)(D) and 111, through CAIR and CAMR, respectively. In support of the final Section 112 rule, EPA conducted extensive modeling and analyses and found that after implementation of CAIR, and independently of CAMR, the level of remaining mercury emissions from domestic coal-fired power plants is not reasonably anticipated to result in hazards to public health. *See* 70 Fed. Reg. at 16,010-16,027 (providing extensive discussion of EPA's modeling and analyses).

Certain aspects of the final CAA Section 112 rule are relevant to Submitters' CWA allegations concerning water quality standards. Specifically, in evaluating whether mercury emissions from domestic coal-fired power plants remaining after CAIR, and independently CAMR, pose hazards to public health, EPA examined the exposure of individuals in the U.S. to domestic power plant-attributable mercury. *See generally* 70 Fed. Reg. at 16,010-16,027. The

U.S. public's primary exposure pathway to mercury is by eating fish contaminated with methylmercury. As such, EPA examined the public's exposure to domestic power plant-attributable methylmercury from the consumption of self-caught, freshwater fish.<sup>7</sup> In this regard, EPA first determined, using a state-of-the-art computerized air-quality model, the amount of domestic power-plant-attributable mercury deposition. EPA also determined the effect of that deposition on methylmercury fish tissue levels in sampled lakes, streams, and rivers in the U.S.

EPA then compared the amount of domestic power plant-attributable methylmercury in self-caught freshwater fish to EPA's methylmercury water quality criterion, which EPA established pursuant to the CWA. *See* 70 Fed. Reg. 16,014-17. EPA published the methylmercury water quality criterion in 2001 for States and Tribes to use in setting water quality standards under the CWA for U.S. waters. *See* Water Quality Criterion for the Protection of Human Health: Methylmercury. EPA-823-R-01-001. Office of Science and Technology, Office of Water, USEPA, Washington, DC., USEPA 2001). The criterion is a risk assessment number that States and authorized Tribes may use in their programs for protection of designated uses under the CWA. Among other things, the methylmercury water quality criterion is based on the reference dose for methylmercury, which EPA established and which the National Academy of Sciences has concluded is a "*scientifically justifiable level for the protection of public health.*"<sup>8</sup> *See* National Academy of Sciences Report on Methylmercury, July 2000, at 11 (emphasis added). The CWA water quality criterion is expressed as a fish tissue concentration of 0.3 milligrams of methylmercury per kilogram (mg/kg) of fish.

EPA's modeling estimates that in the base year of 2001 (*i.e.*, prior to the issuance of both CAIR and CAMR), fish-tissue methylmercury concentrations at the 90<sup>th</sup> percentile, 99<sup>th</sup> percentile, and maximum (that is, the single highest concentration) levels, attributable to domestic coal-fired power plants are 0.11, 0.27, and 0.85 mg/kg, respectively. CAIR reduces the domestic power plant-attributable methylmercury fish-tissue concentrations at the 90<sup>th</sup> percentile, 99<sup>th</sup> percentile, and maximum level to 0.03, 0.10, and 0.25 mg/kg, respectively. CAMR reduces these concentrations even further to 0.03, 0.09, and 0.19 mg/kg, respectively. Significantly, the post-CAIR and CAMR methylmercury fish tissue concentration levels due to domestic coal-fired power plant mercury emissions are well below EPA's methylmercury water quality criterion of

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<sup>7</sup> EPA based its analysis on self-caught freshwater fish because it does not believe that U.S. domestic coal-fired power plants contribute significant amounts of methylmercury to commercially purchased fish or self-caught marine or estuarine fish. *See* 70 Fed. Reg. 15,994, 16,012-23.

<sup>8</sup> EPA defines a reference dose ("RfD") as "an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime." 70 Fed. Reg. 16,012. The RfD for methylmercury is 0.1 microgram of methylmercury per kilogram (ug/kg) of bodyweight. *Id.*



0.3 mg/kg.<sup>9</sup> See 70 Fed. Reg. 16,017-16,029. Based on this modeling, the U.S. believes that CAIR and CAMR amply address Submitters' concerns as to whether deposition of mercury from domestic coal-fired power plants alone will lead to exceedances of water quality standards. The U.S. further believes that it has reasonably implemented the CAA in an effort to control mercury emissions to air from domestic coal-fired power plants.<sup>10</sup> Any interested party may challenge the final CAA rules that EPA recently issued to control mercury emissions to air from domestic coal-fired power plants, and indeed some lawsuits have already been filed in the U.S. Court of Appeals for the District of Columbia Circuit ("D.C. Circuit"). See Section V below.

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<sup>9</sup> EPA's analysis in support of the final Section 112 rule focused on domestic coal-fired power plant-attributable mercury. EPA conducted additional modeling, however, that examined the hazards to public health posed by the mercury global pool, including mercury from domestic power plants. That modeling shows that were EPA to have prohibited all mercury emissions from domestic coal-fired power plants under the CAA, such regulation would have resulted in only a very small improvement in methylmercury levels in those waterbodies that exceed the methylmercury water quality criterion due to the global pool. See 70 Fed. Reg. 16028-29. Therefore, precluding all mercury emissions from domestic coal-fired power plants would, in effect, force such plants out of business, yet reduce virtually none of the risks to public health stemming from the global Hg pool. *Id.*

<sup>10</sup> As described in the final Section 112 rule, see 70 Fed. Reg. 15,994, 16,022-16,029 (Mar. 29, 2005), EPA also reviewed fish consumption data to determine whether the levels of domestic power plant-attributable methylmercury described above would result in ingestion levels of concern to any particular populations of self-caught freshwater fish consumers. At the methylmercury fish tissue concentrations attributable to domestic power plants remaining after implementation of CAIR and CAMR, for a fish consumer to ingest domestic power plant-attributable methylmercury at levels exceeding the RfD, the consumer must consume fish both (1) at the highest consumption rates, and (2) from waterbodies with the highest levels of domestic power plant-attributable mercury fish-tissue concentrations. EPA determined that the probability of these factors converging is quite low— indeed, much less than one percent. See "Technical Support Document ("TSD"): Methodology Used to Generate Deposition, Fish Tissue Methylmercury Concentrations, and Exposure for Determining Effectiveness of Utility Emission Controls," at 46-47 (a copy of the TSD may be found at <http://www.epa.gov/ttn/atw/utility/utilttoxpg.html>). As explained in the final Section 112 rule, as exposure levels increase beyond the RfD, the possibility of deleterious effects increases, but the point at which such levels become unacceptable must be determined on a case-by-case basis. 70 Fed. Reg. 16,024. Based on all of the information before it, EPA concluded that the exposures due solely to domestic power plant-attributable mercury after implementation of CAIR, and independently CAMR, do not constitute an unacceptable risk. *Id.* For this reason and all of the reasons set forth in the final section 112 rule, EPA concluded that the level of domestic power plant mercury emissions remaining after implementation of CAIR, and independently CAMR, does not pose hazards to public health. See 70 Fed. Reg. at 16,201-28.



Based on the foregoing, Submitters' arguments alleging a failure by EPA to control mercury emissions to air from domestic coal-fired power plants lack foundation. As shown below, Submitters' allegations concerning CAA Title V also lack merit.

**D. Submitters' Title V Arguments Concerning Coal-Fired Power Plants Lack Merit.**

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Submitters' allegation that EPA is failing to properly implement Title V of the CAA is erroneous. In support of their assertion, Submitters point to two State Title V permits that they argue neither place restrictions on mercury emissions from coal-fired power plants nor mention CWA water quality standards or antidegradation requirements. Appendix 12, at 8. These permits were issued in February 1998 and December 2004, respectively. Submitters' Title V argument is premised on a fundamental misunderstanding of the requirements of Title V of the CAA. Indeed, Submitters improperly attempt to conflate the requirements of the CAA and the CWA.

Title V of the CAA requires an affected source to obtain an operating permit that contains *all CAA-imposed* substantive air quality control requirements, including emissions standards, monitoring, recordkeeping, and reporting requirements. *See* H.R. Conf. Rep. No. 101-952 at 345 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3867, 3877; *see also* CAA sections 502, 504, 42 U.S.C. §§ 7661a, 7661c; 40 C.F.R. § 70.1(b), 70.2, 70.5, 70.6. As EPA explained when it enacted the regulations implementing CAA Title V,

The title V permit program will enable the source, States, EPA, and the public to understand better the [CAA] requirements to which the source is subject, and whether the source is meeting those requirements. Increased source accountability and better enforcement should result. The program will also greatly strengthen EPA's ability to implement the Act [*i.e.*, the CAA] and enhance air quality planning and control, in part, by providing the basis for better emission inventories.

57 Fed. Reg. at 32,251.

A Title V permit is a CAA operating permit. *See* CAA sections 502, 504, 42 U.S.C. §§ 7661a, 7661c; 40 C.F.R. § 70.2; H.R. Conf. Rep. No. 101-952, *reprinted in* 1990 U.S.C.C.A.N. 3867, 3877. Significantly, Title V does not impose substantive new air emission standards or other emission control requirements, but rather directs that all substantive requirements that stem from other Titles of the Act be subsumed into one permit document. Although Title V permits can include State-only air emission requirements that do not stem from the CAA, those requirements are not federally enforceable.

Contrary to Submitters' assertion, nothing in the CAA or its implementing regulations requires CAA Title V permits to incorporate requirements under the CWA, such as water quality standard or antidegradation requirements, because those requirements are not "applicable

requirements” within the meaning of Title V and EPA’s implementing regulations. *See* 40 C.F.R. § 70.2 (defining applicable requirement by reference to the requirements of the CAA). Thus, the CAA Title V permits on which Submitters rely are not legally deficient in that they do not mention or address water quality standards or antidegradation requirements and policies under the CWA.

Submitters’ additional argument that the two Title V permits appended to the Submission fail to impose mercury reductions for the coal-fired power plants at issue also misses the mark. EPA acknowledges that domestic coal-fired power plants were the largest unregulated anthropogenic source of mercury under the CAA; however, EPA has taken major actions under the CAA in March 2005 to address mercury emissions from that source category. In light of EPA’s recent actions, applicants for initial and renewal permits under Title V – to the extent their operations implicate CAIR and CAMR – must identify those rules as applicable requirements in their permit applications, consistent with EPA’s regulations implementing Title V. EPA’s Title V regulations define an “applicable requirement” to include any standard or other requirement provided for in an implementation plan approved or promulgated by EPA under Title I of the Act, which covers the requirements set forth in CAIR, and “[a]ny standard or other requirement under section 111 of the Act, including Section 111(d),” which covers the requirements of CAMR. 40 C.F.R. § 70.2; *see also* 40 C.F.R. §§ 70.5-70.6.

In sum, EPA expects that CAIR and CAMR will lead to important reductions in mercury emissions from domestic coal-fired power plants, which, in turn, will reduce the amount of domestic air emissions of mercury deposited to water and thereby lead to improved water quality. The CAIR and CAMR requirements will be incorporated into Title V permits for sources affected by Title V, e.g., major sources, *see* 40 C.F.R. 70.2, and those Title V permits will serve as an important mechanism for EPA, States, and the public to ensure that the recently promulgated requirements are met.<sup>11</sup>

**E. Submitters’ Remaining Allegations Concerning EPA’s Implementation Of The CAA With Regard To Coal-Fired Power Plants Are Similarly Misplaced.**

Submitters incorrectly imply that EPA delayed implementing regulations concerning mercury from coal-fired power plants for “over a decade.” Appendix 12, at 10. Submitters’ assertion ignores the statutory requirements of CAA section 112(n)(1)(A). In 1990, Congress enacted CAA section 112(n)(1)(A), which specifically addresses HAP emissions, including mercury, from domestic coal-fired power plants. As explained above, Congress directed EPA to examine the effect of other provisions of the CAA on domestic power plant HAP emissions and to

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<sup>11</sup> To the extent Submitters have an objection to a future Title V permit issued to a domestic coal-fired power plant, Title V provides extensive administrative and judicial remedies to Submitters and other concerned parties. *See generally* 42 U.S.C. §§ 7661a(b)(6), (8), 7661d, 7607(b)(1); 40 C.F.R. § 70.8, 70.11(1).

submit a Report to Congress by 1993. EPA completed that report in 1998. *See* n. 5. Congress then directed EPA to make a determination concerning whether it was both appropriate and necessary to regulate power plants under CAA section 112. Congress set no deadline by which EPA was to make such a determination. EPA has now conducted the required analysis under CAA section 112(n)(1)(A), and concluded through final agency action that it is neither appropriate nor necessary to regulate coal- and oil-fired power plants under CAA section 112. EPA's conclusion is premised largely on the mercury reductions that will occur as the result of the implementation of CAA sections 110(a)(2)(D) and 111, as implemented through CAIR and CAMR, respectively.

EPA initially issued a regulatory finding in December 2000 under CAA section 112(n)(1)(A), stating that it was appropriate and necessary to regulate coal- and oil-fired power plants under CAA section 112. *See* 65 Fed. Reg. 79,825 (Dec. 20, 2000). Based solely on that finding, EPA listed coal- and oil-fired power plants as a source category to be regulated under CAA section 112.<sup>12</sup> EPA revised the December 2000 finding and removed power plants from the section 112(c) list in March 2005 for several reasons, including, but not limited to, its conclusion that the December 2000 finding lacked foundation.

In conclusion, EPA has reasonably exercised its discretion in implementing the CAA and in prioritizing the numerous deadlines and requirements contained in the 1990 amendments to the Act. EPA's efforts to control mercury emissions from all anthropogenic sources in the U.S. have been substantial, with a 45 percent reduction in domestic anthropogenic mercury emissions between 1990 and 1999, and additional reductions occurring as the result of more recently issued regulations affecting non-power plant sources. In addition, EPA's recent issuance of CAIR and CAMR will result in about a 70 percent reduction in mercury emissions from domestic coal-fired power plants, from 1999 emission levels, which will address Submitters' core concerns regarding the deposition of mercury from coal-fired power plants into waters of the U.S.

### **III. CLEAN WATER ACT – BACKGROUND AND DISCUSSION**

#### **A. Overview Of Response To Submitters' Assertions Under The CWA**

Submitters concede that emissions of mercury to air are the key to understanding and addressing the control of mercury contamination in water due to the activities of coal-fired power plants. The bulk of Submitters' detailed allegations, however, focus on their assertions that EPA is not doing enough under the CWA's TMDL, antidegradation, and NPDES programs to stem the presence of mercury in water. Submitters' allegations of ineffective enforcement rest on erroneous views of EPA's authorities under the CWA and the degree to which the presence of fish

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<sup>12</sup> EPA had entered into a settlement agreement with an environmental group that established a schedule for proposing and finalizing section 112 standards, if EPA issued a positive finding under section 112(n)(1)(A). EPA negotiated a longer schedule for completion of the section 112 standards than is provided for under the statute.

consumption advisories translates into a requirement for action under those authorities. Submitters are incorrect as a matter of law as to the actions required and authorized by the CWA. In essence, Submitters seek development of a factual record to demonstrate that the U.S. is failing to implement the CWA on the basis that the U.S. has failed to take actions that are neither required nor authorized by that act. The development of a factual record to explore such legally erroneous allegations would serve no useful purpose.

With respect to the TMDL program, Submitters assert that EPA is not properly implementing and overseeing State implementation of the CWA with respect to approval of 303(d) lists, State prioritization and scheduling of TMDL development, approval of TMDLs, and oversight of State implementation of the continuing planning process with respect to TMDLs. To the contrary, Submitters themselves concede that state 303(d) lists are, for the most part, accurate. Submitters ignore the CWA's preference for State action in the first instance with respect to prioritization and scheduling of TMDL development. Finally, with respect to approval of TMDLs and their implementation, Submitters essentially argue that TMDLs must include enforceable requirements addressing air deposition of mercury. Since the CWA provides no authority to regulate nonpoint sources of pollutants, Submitters have erred in their interpretation of TMDL requirements and, therefore, have erred when they assert that EPA is failing to effectively enforce the CWA in the TMDL program.

With respect to EPA's antidegradation requirements, Submitters seek a factual record to explore whether EPA is approving inadequate state antidegradation policies and implementation procedures. Submitters assert that antidegradation requirements are a primary CWA mechanism for controlling nonpoint sources of pollution. The Submission identifies emissions from coal-fired power plants as nonpoint sources of mercury pollution, and argues that the federal government must ensure nonpoint source controls. As with TMDLs, however, Submitters incorrectly assert that Congress authorized EPA under the CWA to regulate or compel States to regulate or otherwise control nonpoint sources of pollution, be it through TMDLs or antidegradation requirements. Congress has not given EPA such authority under the CWA.

With respect to the NPDES program, Submitters' fundamental assertion is that point source discharges of mercury are not allowed into waterways that are currently under fish consumption advisories for mercury. Submission, at 12. Essentially, Submitters assert that the existence of a fish consumption advisory means that a waterbody is not in attainment of its water quality standards, and that, if a water body is impaired due to mercury, there can be no point source discharges of mercury. This assertion is supported by neither the CWA nor EPA's implementing regulations. First, as discussed in greater detail below, the presence of a fish consumption advisory does not necessarily mean that a water is not attaining its water quality standard. Second, Submitters again misunderstand the requirements of the CWA, for even if a water is not attaining a water quality standard, the CWA does not bar existing, or even new, point source discharges to that waterbody. Therefore, it is possible to permit such discharges under the NPDES program consistent with the Act.

Finally, Submitters' assertions do not reflect the many other significant activities EPA is undertaking under the CWA to address mercury discharges. EPA is committed to taking action, consistent with its authority, to reduce mercury releases into the environment. The U.S. public is exposed to mercury primarily by eating fish containing methylmercury. Since reducing levels of methylmercury in fish will take time and concerted effort under a variety of authorities, EPA is taking both near and long-term actions to reduce methylmercury exposures.

A number of these actions to address mercury contamination are underway in EPA's water programs. The CWA establishes a relationship of cooperative federalism between EPA and the States. Therefore, the States are, for the most part, directly implementing the CWA programs that can, within the limits of the Act, address mercury – water quality standards, NPDES permitting, and TMDLs. EPA has a role overseeing and guiding these programs generally.

Aside from its oversight responsibilities, EPA has taken a number of actions that will have significant effects on the development and implementation of water quality standards, NPDES permits, and TMDLs for mercury under the CWA. Those actions include the establishment of a powerful new testing procedure for the detection of mercury and the publication of a new recommended water quality criterion for mercury. The new test procedures EPA has established for the detection of mercury are *400 times* more sensitive than the previous most sensitive method. This new test method is extremely vital in detecting mercury where it was previously undetected. With increasing use of the new analytical method, the number of facilities needing permit limits for mercury will increase. The new recommended section 304(a) water quality criterion for methylmercury describes the concentration of methylmercury in freshwater and estuarine fish and shellfish tissue that should not be exceeded, in order to protect consumers of fish and shellfish among the general population. 66 Fed. Reg. 1344 (Jan. 8, 2001). EPA expects the criterion recommendation to be used as guidance by States, authorized Tribes, and EPA in establishing or updating water quality standards for waters of the U.S. and in issuing fish and shellfish consumption advisories. This is the first time EPA has issued a water quality criterion expressed as a fish and shellfish tissue value rather than as a water column value.

In addition, EPA is currently drafting guidance for States on how to adopt and implement the new criterion. Both the new more sensitive test method and EPA's new water quality criterion use the most current science to enable EPA to detect and monitor more mercury contaminated waters than ever before. They also enable EPA and the States to take faster action to permit mercury dischargers, and subsequently monitor discharges. These actions will assist in reducing mercury contamination to waterbodies. EPA also is conducting a four-year study, which will generate data on the largest set of bioaccumulative and toxic chemicals ever studied in fish, including mercury. This study will help us understand areas where mercury contaminant levels warrant further study. Finally, in 2004, the Food and Drug Administration and EPA announced their joint consumer advisory on mercury in fish and shellfish for reducing the exposure to high levels of mercury in women who may become pregnant, pregnant women, nursing mothers, and young children.

These actions under the CWA demonstrate EPA's commitment to addressing mercury in water based on sound science and in accordance with its statutory mandates. They also demonstrate that control of mercury levels in the waters of the U.S. is a "dynamic and improving situation." See *Ontario Power Generation, Great Lakes*.

This section will demonstrate that Submitters' allegations are based on a misunderstanding of the CWA. It first provides an overview of the relevant CWA requirements. It then discusses in more detail two basic misunderstandings reflected in the Submission: (1) the difference between the CWA's treatment of point sources regulated under the NPDES program and its treatment of other sources of pollutants called nonpoint sources; and (2) the nature of fish consumption advisories. Finally, this section responds to the Submission's specific assertions with respect to the TMDL program, antidegradation policies, and the NPDES program.

## **B. Overview Of The CWA**

The CWA was adopted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 101(a), 33 U.S.C. § 1251(a). The CWA relies on two primary strategies to control water pollution: technology-based regulations and water quality standards. Technology-based regulations reflect the degree of pollutant reduction achievable by a discharger through equipment or process changes. Water quality standards indicate the level of pollution that may be present in a defined body of water irrespective of the source of pollution. See CWA section 303(c)(2)(A),(B), 33 U.S.C. § 1313(c)(2)(A),(B); 40 C.F.R. § 131.10-131.12.

Since a central goal of the CWA is to achieve and maintain desirable levels of water quality, the CWA mandates the development of water quality standards. Once those standards are set, the States and EPA can then determine what steps are necessary to achieve or maintain desired levels of water quality, whether through control or prohibition of pollutant-bearing discharges into the receiving waters.

The National Pollutant Discharge Elimination System ("NPDES") permit program is the principal means for implementing both technology-based requirements and water quality standards. CWA sections 402(a)(1), 301(b)(1)(C), 33 U.S.C. § 1342(a)(1), 1311(b)(1)(C); 40 C.F.R. § 122.44(a), (d)(1). An NPDES permit transforms those general requirements and standards into specific limits applicable to an individual discharger. A discharge from a point source<sup>13</sup> of any pollutant<sup>14</sup> into the waters of the United States is prohibited unless that discharge

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<sup>13</sup> The term "point source" is defined in the CWA to mean, "any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged." CWA section 502(14), 33 U.S.C. § 1362(14).

<sup>14</sup> A pollutant is defined as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials,

complies with the discharge limits and other requirements of an NPDES permit. *Id.* sections 301(a), 502(12),(14), §§ 1311(a), 1362(12), (14).

The CWA's goals may be attained through the straightforward use of the tools described above: technology-based requirements and water quality standards, implemented through NPDES permits for point sources. In those cases where water quality standards have not been attained using such tools, the CWA includes a Total Maximum Daily Load ("TMDL") program. Under the TMDL program, States identify waters not meeting water quality standards after implementation of technology-based controls and develop TMDLs for those waters. CWA section 303(d), 33 U.S.C. § 1313(d). TMDLs are planning tools that identify the levels of pollutants that would need to be reduced from all sources (including sources not regulated under the CWA) if water quality standards are to be attained.

One other important aspect of the CWA bears emphasis at the outset, and that is its incorporation of federalism as a centerpiece of the Act. The CWA recognizes that States bear "the primary responsibilit[y] and right[] . . . to prevent, reduce, and eliminate pollution." CWA section 101(b), 33 U.S.C. § 1251(b). Thus, the CWA establishes as "the policy of Congress that the States . . . implement the [NPDES] permit program." *Id.* The substantive provisions of the CWA and its legislative history "reflect the desire of Congress to put the regulatory burden on the states and to give [EPA] broad discretion in administering the program." *District of Columbia v. Schramm*, 631 F.2d 854, 860 (D.C. Cir. 1980). The State-EPA relationship under the CWA is therefore one of "cooperative federalism." *United States Dep't of Energy v. Ohio*, 503 U.S. 607, 633 (White, J., concurring). Through it, the States, with EPA oversight, bear primary responsibility for the important means of achieving the CWA's goals: establishment of water quality standards, implementation of the NPDES program, and establishment of Total Maximum Daily Loads under CWA section 303(d).

C. **Submitters Misstate The CWA's Treatment Of Nonpoint Sources And The Role Of Fish Consumption Advisories**

The Submission asserts that there has been a "wide-scale, systemic breakdown in the U.S. government's statutory and regulatory mandate to address mercury emissions from coal-fired power plants as a non-point source of pollution under the CWA." Appendix 12. More specifically, Submitters assert that the U.S. has failed to effectively enforce CWA requirements with respect to the TMDL program, the antidegradation component of State water quality standards, and the NPDES program. As explained below, underlying Submitters' claims are two basic misunderstandings: (1) the fundamental difference between the CWA's treatment of point sources, regulated under the NPDES program, and nonpoint sources, which are not regulated under the CWA; and (2) the nature of fish consumption advisories.

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heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." CWA section 502(6), 33 U.S.C. § 1362(6).

## 1. Point Source vs. Nonpoint Source Pollution – Limitations in Authority

It is important to emphasize the differences in the treatment of point and nonpoint sources of pollution under the CWA. As noted above, the term “point source” is defined in the CWA to mean “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” CWA section 502(14), 33 U.S.C. § 1362(14). “Point source” is interpreted broadly. *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979). Most point source dischargers achieve compliance with the Act by obtaining and adhering to the terms of an NPDES permit.

For nonpoint sources, there is no federal nonpoint source permitting program and therefore any nonpoint source reductions can only be “required” from those responsible for the pollution to the extent that a State chooses to make such reductions a regulatory requirement pursuant to State authority. *Pronsolino v. Marcus*, 91 F. Supp. 2d 1337, 1355-56 (N.D. Cal. 2000). The CWA provides no regulatory mechanism to control nonpoint source pollution. *See NRDC v. EPA*, 915 F.2d 1314, 1316 (9<sup>th</sup> Cir. 1990); *National Wildlife Fed’n v. Gorsuch*, 693 F.2d 156, 176 (D.C. Cir. 1982).

Unlike the term “point source,” “nonpoint source” is not defined in the CWA or its regulations. In some instances it has been defined by exclusion as being “nothing more than a [water] pollution problem not involving a discharge from a point source.” *National Wildlife Fed’n v. Gorsuch*, 693 F.2d 156, 165-66 and n.28 (D.C. Cir. 1982). Other courts have defined nonpoint source pollution as “unchanneled and uncollected surface runoff.” *Shanty Town Assocs. Ltd. P’ship v. EPA*, 843 F.2d 782, 785 n.2 (4th Cir. 1988).

While nonpoint sources make a significant contribution to water pollution, Congress has chosen in the CWA not to give EPA the power to regulate nonpoint sources. *See, e.g., American Wildlands*, 260 F.3d at 1197; *United States v. Earth Sciences, Inc.*, 599 F.2d at 373; *Appalachian Power Company v. Train*, 545 F.2d 1351, 1373 (4th Cir. 1976). Rather, Congress has addressed nonpoint source pollution in the CWA through programs to identify water quality problems caused by nonpoint source pollution and to provide financial support for development of state nonpoint source management programs. *Pronsolino v. Nastri*, 291 F.3d 1123, 1126-27 (9<sup>th</sup> Cir. 2002), *petition for cert. filed*, 71 U.S.L.W. 3531 (Feb. 6, 2003) (No. 02-1186).

The effects and control of nonpoint source pollution are to be addressed by States through nonpoint source management programs (CWA section 319, 33 U.S.C. § 1329) and area wide waste treatment management (CWA section 208, 33 U.S.C. § 1288). Under CWA section 319, 33 U.S.C. § 1329, the States were to prepare one-time assessment reports regarding nonpoint source pollution and submit management programs for the control of nonpoint source pollution. CWA section 319(a)(1), (b), 33 U.S.C. § 1329(a)(1), (b). When Congress added CWA section 319, however, Congress did not then require, nor has it ever required, that States establish federally enforceable nonpoint source controls. Nonpoint source controls, if enforceable at all, are enforceable only under State law. *See Oregon Natural Resources Council v. United States Forest*



*Service*, 834 F.2d 842, 849-50 (9th Cir. 1987). See also *NRDC v. EPA*, 915 F.2d 1314, 1318 (9th Cir. 1990); *Shanty Town Assocs. Ltd. P'ship v. EPA*, 843 F.2d at 791.

## 2. Fish Consumption Advisories

Fundamental to Submitters' assertions of ineffective enforcement of the CWA's TMDL, antidegradation, and NPDES provisions is Submitters' assumption that an increase in mercury fish consumption advisories is evidence that State water quality standards are not being met and that there has been an increase in waters contaminated by mercury. As explained below, Submitters misunderstand the basis for fish consumption advisories and their relationship to water quality standards.

On October 24, 2000, EPA issued guidance on the use of fish advisories in listing decisions under CWA sections 303(d) and 305(b). *Guidance: Use of Fish and Shellfish Advisories and Classifications in 303(d) and 305(b) Listing Decisions* - Geoffrey H. Grubbs and Robert H. Wayland III -- Oct. 24, 2000. The guidance notes that fish consumption advisories based on waterbody-specific information can demonstrate impairment of CWA section 101(a) "fishable" uses. Although the CWA does not explicitly direct the use of fish consumption advisories to determine attainment of water quality standards, States and authorized Tribes must consider all existing and readily available data and information to identify impaired waterbodies on their section 303(d) lists. For purposes of determining waterbody impairment and inclusion on a section 303(d) list, EPA considers a fish consumption advisory and the supporting data to be existing and readily available data and information. Under the guidance, a fish or shellfish advisory would demonstrate non-attainment of water quality standards only when the advisory is based on tissue data, the data are from the specific waterbody in question, and the risk assessment parameters of the advisory or classification are cumulatively equal to or less protective than those in the water quality standards.<sup>15</sup>

The number of fish consumption advisories has increased since 1993, which is when EPA first began collecting information about fish consumption advisories on a national level. EPA annually conducts a survey of States to obtain information on the number and geographical extent of cumulative lake acres and river miles that are under fish consumption advisories. Since 1993,

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<sup>15</sup> For example, consider a State or authorized Tribe that bases its water quality criterion on the consumption of *two* fish meals a month. If mercury is found in fish tissue from a waterbody at a level that supports a decision by the State or Tribe to advise the consumption of no more than *one* fish meal a month, and all other risk assessment factors are constant, then the advisory demonstrates a water quality standard exceedance and the waterbody should be listed on the 303(d) list. If, in contrast, mercury is found in fish at a level that supports a decision by the State or Tribe to advise the consumption of no more than *eight* fish meals a month, and all other risk assessment factors are constant, then the advisory does not demonstrate a water quality exceedance, and the waterbody need not be listed.

the number of lake acres under advisory have increased by over a factor of three, and the number of river miles by almost a factor of six. At the same time, EPA has been working with States to increase their monitoring of fish tissue and to improve the technical basis of their process for issuing advisories. Based on this, EPA believes the increase in the lake acres and river miles under advisories is due in part to an increase in the number of assessments of chemical contaminants in fish and water-dependent wildlife tissues and the States' increasing use of statewide advisories (most of which are issued as a precautionary measure in the absence of site-specific information about mercury levels in fish) and not necessarily due to increased levels or frequency of contamination. In fact, as noted above, total mercury emissions within the U.S. decreased by 45 per cent from 1990 to 1999. (See the National Listing of Fish Advisories Fact Sheet, EPA-823-F-04-016, August 2004, <http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>, and Briefing Package for 2003 National Listing of Fish Advisories, August 24, 2004, slides 5 and 9, <http://epa.gov/waterscience/fish/advisories/briefing.pdf>)

Accordingly, State fish consumption advisories do not, on their own, demonstrate that a waterbody is not in attainment for an applicable water quality standard, nor does an increase in fish consumption advisories demonstrate, on its own, that mercury contamination is increasing.

#### **D. Responses To Specific CWA Allegations**

With the foregoing background, we move to Submitters' specific CWA allegations concerning mercury from coal-fired power plants. We begin with Submitters' allegations concerning the TMDL program, which the Submission presents at greatest length.

##### **1. EPA Is Effectively Implementing Its Authorities Under CWA Provisions Governing the TMDL Program.**

Submitters' allegations concerning the TMDL program are several. They include that: (1) EPA is approving State 303(d) lists that under-report mercury pollution and impaired waters by, among other things, not using fish consumption advisories as a factor in determining 303(d) list status; (2) EPA is not exercising authority to require States to establish TMDLs for mercury where WQS are not being met; (3) EPA is not intervening to establish its own mercury TMDLs where State action is inadequate; and (4) a CEC factual record is needed to determine which State continuing planning processes either do not incorporate existing TMDLs or incorporate TMDLs that do not have any regulation or best management practices for mercury air emissions from coal-fired plants. Contrary to Submitters' allegations, however, EPA is properly implementing and overseeing State implementation of the CWA with respect to approval of 303(d) lists, State prioritization and scheduling of TMDL development, approval of TMDLs, and oversight of State implementation of the continuing planning process with respect to TMDLs.

**a. Overview of the TMDL program**

CWA Section 303(d) is one component of an integrated and complex water pollution control regime established over the course of decades in order to “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” CWA section 101(a), 33 U.S.C. § 1251(a). Section 303(d) requires each State to identify and prioritize waters where technology-based controls are inadequate to attain water quality standards:

Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking of such waters, taking into account the severity of the pollution and the uses to be made of such waters.

CWA section 303(d)(1)(A), 33 U.S.C. § 1313(d)(1)(A). The State’s identification of such waters, which are known as “water quality limited segments” (or “WQLSs”), constitutes the “303(d) List.” See 40 C.F.R. § 130.7(b). Pursuant to EPA’s regulations, States must establish and submit their 303(d) Lists to EPA for review every two years. 40 C.F.R. 130.7(d)(1). If EPA disapproves a State’s List, EPA must establish a List for the State. CWA section 303(d)(2), 33 U.S.C. § 1313(d)(2).

For all waters identified under section 303(d)(1)(A) as exceeding water quality standards, the Act provides:

Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation.<sup>16</sup> Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

33 U.S.C. § 1313(d)(1)(C)(footnote added). The term “total maximum daily load” is not expressly defined in the CWA. In its 1985 implementing regulations, EPA defined a TMDL for a pollutant, *e.g.*, sediment, as the sum of the “wasteload allocations” assigned to point sources, the “load allocations” assigned to nonpoint sources or “natural background,” and a margin of safety. 40 C.F.R. § 130.2(i). Therefore, a TMDL identifies the maximum amount of a pollutant that can be present in a waterbody and still attain State water quality standards (the “loading capacity”).

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<sup>16</sup> EPA has identified all pollutants, under proper technical conditions, as suitable for TMDL calculations. 43 Fed. Reg. 60,662, 60,666 (Dec. 28, 1978).

States must establish TMDLs for waters where pollutants are “preventing or expected to prevent attainment of water quality standards.” CWA section 303(d)(1)(C), 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c)(1)(ii). EPA is required to review and approve or disapprove TMDLs established by States for impaired waters within thirty days. CWA section 303(d)(2), 33 U.S.C. § 1313(d)(2). If EPA disapproves a State TMDL submission, EPA must issue its own TMDL for that water within thirty days. *Id.*

TMDLs established under section 303(d)(1) of the Act function primarily as planning tools and are not self-executing. *Pronsolino v. Nastri*, 291 F.3d 1123, 1129 (9<sup>th</sup> Cir. 2002). A TMDL does not, by itself, prohibit any conduct or require any actions. Instead, each TMDL represents a goal that may be implemented by adjusting pollutant discharge requirements in individual NPDES permits or by a State establishing nonpoint source controls.<sup>17</sup>

For point sources, waste load allocations may be implemented through the NPDES permit system. 40 C.F.R. § 122.44(d)(1)(vii)(B). EPA regulations require that effluent limitations in NPDES permits be “consistent with the assumptions and requirements of any available wasteload allocation” in a TMDL. 40 C.F.R. § 122.44(d)(1)(vii)(B).

Finally, in section 303(e), Congress required each State to develop a “continuing planning process” (“CPP”) that would result in plans for all waters within the State. *See* 33 U.S.C. § 1313(e)(3). These plans are required to include TMDLs, *see* CWA section 303(e)(3)(C), 33 U.S.C. § 1313(e)(3)(C), and “adequate implementation” for new and revised water quality standards. *See* CWA section 303(e)(3)(F), 33 U.S.C. § 1313(e)(3)(F). Congress, however, did not specify the method that States are to use (regulatory vs. non-regulatory) to carry out their plans, leaving this decision to the discretion of the States. States are required to submit their CPPs to EPA for review and approval. CWA section 303(e)(2), 33 U.S.C. § 1313(e)(2).

#### **b. Implementation of TMDLs**

Submitters’ primary concern is that the States and EPA are not properly implementing the TMDL program with respect to air deposition of mercury from coal-fired power plants. Submitters characterize this source of mercury as “nonpoint, for example from atmospheric deposition” (Submission, at 9), yet fail to acknowledge the limitations of CWA authority over nonpoint sources. As the above discussion of the statutory and regulatory design of the TMDL program makes clear, the TMDL program provides no new authorities to regulate the introduction of pollutants to waters of the U.S. If a source of pollutants is a nonpoint source, that source is not subject to regulation under the NPDES program, the existence of a TMDL does not provide any additional federal regulatory authorities. Accordingly, the TMDL program does not establish the kind of mercury controls Submitters seek for nonpoint source pollution.

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<sup>17</sup> *See, e.g., Sierra Club v. Meiburg*, 296 F.3d 1021, 1025 (11<sup>th</sup> Cir. 2002); *Idaho Sportsmen’s Coalition v. Browner*, 951 F. Supp. 962, 966 (W.D. Wash. 1996); *Pronsolino*, 291 F.3d at 1129; *Idaho Conservation League v. Thomas*, 91 F.3d 1345, 1347 (9<sup>th</sup> Cir. 1996).

Wasteload allocations are implemented through the existing NPDES program. Potential limitations in pollutant loadings identified for nonpoint sources (*i.e.*, “load allocations”), meanwhile, are not subjected by the CWA to a federal, nonpoint source permitting program. As a result, any resultant pollutant reductions may be “required” from those responsible for the nonpoint source pollution only to the extent that a State opts to make such reductions a regulatory requirement pursuant to a State authority.

Nonpoint source pollution may also be addressed by the States through areawide waste treatment management, pursuant to CWA section 208, and source management programs, pursuant to CWA section 319. Section 208 directs the States to draft waste treatment plans that include procedures for identifying nonpoint source pollution from various sources, and to establish best management practices to control such pollution. CWA section 208(b)(2)(F), 33 U.S.C. § 1288(b)(2)(F). Section 208 also provides financial incentives for farmers and other nonpoint source polluters to adopt these management practices – but the CWA does not penalize nonpoint source polluters for failing to adopt them. *NRDC*, 915 F.2d at 1316 n.3; 33 U.S.C. § 1288(j). Similarly, section 319, a grants program by which EPA disburses funding to the States to assist them with implementation of nonpoint source management programs, does not establish any federal regulatory authority. *NRDC*, 915 F.2d at 1318.

In the end, however, with regard to Submitters’ TMDL allegations, CWA section 303(d)’s TMDL provisions add no new federal enforcement authorities, and EPA cannot impose mandatory controls on nonpoint sources:

The upshot of this intricate scheme is that the CWA leaves to the states the responsibility of developing plans to achieve water quality standards if the statutorily-mandated point source controls will not alone suffice, while providing federal funding to aid in the implementation of the state plans. *See Dombeck*, 172 F.3d at 1097; § 303(e); *see also* § 319(h), 33 U.S.C. § 1329(h) (providing for grants to states to combat nonpoint source pollution). TMDLs are primarily informational tools that allow the states to proceed from the identification of waters requiring additional planning to the required plans. *See Alaska Center for the Environment v. Browner*, 20 F.3d 981, 984-85 (9th Cir. 1994). As such, TMDLs serve as a link in an implementation chain that includes federally-regulated point source controls, state or local plans for point and nonpoint source pollution reduction, and assessment of the impact of such measures on water quality, all to the end of attaining water quality goals for the nation’s waters.

*Pronsolino v. Nastri*, 291 F.3d 1123, 1127 (9<sup>th</sup> Cir. 2002).<sup>18</sup> Accordingly, Submitters' incorrect view of how the TMDL program operates fatally undermines their entire set of TMDL allegations, and renders inappropriate the recommendation of a factual record.

The above notwithstanding, however, the U.S. welcomes this opportunity to demonstrate that, not only are Submitters incorrect in their legal views, but that EPA is effectively implementing its TMDL authorities, properly understood.

**c. EPA is properly implementing CWA Section 303(d) with respect to State listing of waters impaired by mercury.**

As discussed by way of background above, under CWA section 303(d), States, rather than EPA, are required to develop lists of impaired waters and develop TMDLs for those waters. Under EPA's implementing regulations, States must submit their lists of impaired waters to EPA in every even-numbered year. Submitters seek the development of a factual record to determine if EPA is approving State 303(d) lists that are inadequate due to under-reporting of mercury pollution and impaired waters, due in turn to, among other things, alleged failures to use fish consumption advisories ("FCAs") as factors in determining 303(d) list status. Appendix 12 itself indicates, however, that State 303(d) lists "to a large extent list FCA impaired water bodies." Appendix 12. Therefore, the development of a factual record on this issue is not warranted. Nevertheless, the U.S. will respond to Submitters' assertions with respect to EPA's oversight of State listing decisions of waters impaired by mercury.

The U.S. first notes that EPA has issued guidance clarifying the Agency's expectations regarding State lists of impaired waters. EPA guidance, for example, indicates that States should include on their lists those waterbodies impaired by pollutants, regardless of the source of pollutants – including pollutants from atmospheric sources such as mercury. *National Clarifying Guidance for 1998 States and Territory Section 303(d) Listing Decisions*, Robert H. Wayland, August 17, 1997. States have included waterbodies impaired by mercury on their 303(d) lists, and EPA has reviewed and approved such lists.

As of the 2002 303(d) listing cycle, over 3,180 individual waterbodies in 42 States have been identified as impaired by mercury. These include waterbodies identified specifically as impaired due to mercury, as well as those identified as impaired due to FCAs for mercury. States are in the process of submitting their 2004 impaired waters lists to EPA, and EPA anticipates that States will continue to include mercury impaired waters on their lists as appropriate.

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<sup>18</sup> Under CWA section 504, 33 U.S.C. § 1364, the Administrator may bring a lawsuit in district court to restrain any person from discharging pollutants causing an imminent and substantial endangerment to health or economic welfare. While EPA interprets this section to allow the Administrator to bring an action against a nonpoint source of pollutants, this provision is rarely used and the Submission raises no issue with respect to an imminent and substantial endangerment to health or welfare.

As noted above, however, FCAs do not necessarily in and of themselves establish that there has been a violation of a water quality standard, such that a water should be listed under section 303(d). Therefore, the existence of an FCA for a specific waterbody, if that waterbody does not appear on a State 303(d) list, does not in itself indicate that a State has improperly failed to list a water body under section 303(d) or that EPA has improperly approved a State's list.

In short, the States, including the ten States highlighted in Appendix 12, are in fact listing waters as impaired by mercury and are listing waters with FCAs when appropriate. The mere existence of an FCA does not equate to a need for 303(d) listing. EPA is reviewing and taking action to approve or disapprove those State lists as required by the CWA.<sup>19</sup>

**d. EPA is properly implementing CWA Section 303(d) with respect to State priorities for establishing TMDLs for mercury.**

Submitters also assert that, for each of the ten States highlighted in Appendix 12, they have cross-referenced the listing of impaired waters with waterbodies subject to mercury FCAs, and then determined what, if any, TMDLs are planned or have been prepared for these waterbodies. They assert that they have examined the schedule and priorities for TMDL development in each of the ten States and note that, in many cases, the mercury TMDLs are not scheduled for near-term development. The Submission then asserts that EPA is failing to use its authority to require States to establish TMDLs for mercury where water quality standards are not being met and, that EPA is failing to intervene by establishing its own TMDLs where State action is inadequate. EPA believes that the CWA granted States considerable discretion to determine their TMDL development priorities, and that Submitters' disagreement with those priorities in the ten highlighted States does not demonstrate that EPA is failing to effectively enforce the CWA.

TMDLs are developed according to a priority ranking developed by States and submitted to EPA as part of their 303(d) lists. Section 303(d) requires States to "establish a priority ranking" for the waters it identifies on the list, taking into account the severity of the pollution and the uses to be made of such waters, and to establish TMDLs "in accordance with the priority ranking." The CWA does not prescribe a particular method of expressing a priority ranking for developing TMDLs, and EPA believes a TMDL schedule is a reasonable, efficient way to demonstrate priority ranking. Federal regulations provide that "schedules for submissions of TMDLs shall be determined by the Regional Administrator and the State." 40 C.F.R. § 130.7(d)(1).

According to EPA guidance, State schedules should be expeditious and normally extend from eight to thirteen years in length from the data of the original water/pollutant listing.

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<sup>19</sup> Any concerns Submitters, or any citizen, have about the listing status of a particular water can be addressed by participating in the State public process for listing decisions or by challenging EPA's approval of a listing decision. See Section V below, regarding private remedies that are available against EPA.

*Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, TMDL-01-03-Diane Regas-July 21, 2003.* EPA guidance further notes that the schedules may be shorter or slightly longer depending on State-specific factors. *New Policies for Establishing and Implementing Total Maximum Daily Loads (TMDLs), Bob Perciasepe, August 8, 1997.* These factors may include:

- number of impaired segments;
- length of river miles, lakes, or other waterbodies for which TMDLs are needed;
- proximity of listed waters to each other within a watershed;
- number and relative complexity of the TMDLs;
- number and similarities or differences among the source categories to be allocated;
- availability of monitoring data or models; and
- relative significance of the environmental harm or threat.

Other reasonable factors such as the State's use of a rotating basin approach or commitments specified in court orders or consent decrees may also be considered when States develop priorities and schedules. *Guidance for 2004 Assessment, Listing and Reporting Requirements, above.*

As described in EPA guidance, States may consider the complexity of TMDLs in developing their schedules for TMDL development. EPA recognizes that developing TMDLs for mercury, particularly mercury from nonpoint source, such as deposition from air sources, is particularly complex. Mercury TMDLs may involve sophisticated air modeling to determine the amount and sources of loadings from air deposition, which includes local, regional, national, and international sources. Given the complexities of mercury TMDLs, EPA believes that States may choose to put mercury TMDLs later in their schedule for TMDL development. The decision by States to schedule mercury TMDLs for later development is particularly reasonable in light of EPA's activity under the CAA to control mercury emissions from domestic coal-fired power plants.

Nonetheless, a number of States have developed or are developing mercury TMDLs. EPA has approved or established mercury TMDLs for 221 waterbodies in 16 States and the District of Columbia. These include TMDLs in Arizona, California, Colorado, the District of Columbia, Georgia, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, South Carolina, Utah, and Washington. Several other States, including Maryland, Minnesota, and Louisiana, are currently developing mercury TMDLs. In many of these TMDLs, air sources contribute a large proportion of the mercury loadings, and the TMDLs identify the total loadings from air sources. In other waterbodies, particularly those in western States, deposits from past mining activities and geologic or natural deposits may also contribute to the mercury loadings. The waterbodies for which EPA has approved or established mercury TMDLs can be found on the TMDL program webpage at [http://oaspub.epa.gov/waters/national\\_rept.control](http://oaspub.epa.gov/waters/national_rept.control).

EPA recognizes that the traditional waterbody-by-waterbody approach to TMDLs may not be the most efficient approach for States where many waterbodies are impaired by mercury from



air deposition, particularly mercury from out-of-state and international sources. EPA is exploring alternative approaches to waterbody-specific TMDLs in order to make progress toward achieving State water quality standards. Potential alternatives include statewide or regional approaches to developing TMDLs, and the development of comprehensive State mercury reductions programs. The reduction programs would be implemented under State law, not the CWA, because, as noted above, air deposition is a nonpoint source of pollution, which cannot be controlled under the CWA.

**e. EPA is properly implementing CWA Section 303(d) with respect to State establishment of TMDLs for mercury.**

The Submission also asserts that EPA is failing to use its authority to require States to establish TMDLs for mercury where water quality standards are not being met or a beneficial use has been lost, and EPA is failing to intervene by issuing its own TMDLs where State action is inadequate. EPA does not have the authority to require the former, however, and is not required to do the latter under the circumstances identified by the Submission.

EPA does have the authority to add waters impaired for mercury to a State 303(d) list if the State has failed to do so. Submitters, and any other concerned citizen, can participate in an individual State's 303(d) listing process and provide data and information if a State fails to include an impaired water. If EPA agrees that the State has improperly failed to include a water on its 303(d) list, EPA has the authority to disapprove that failure and establish a list that includes that water. However, EPA does not have the authority to "require States to establish TMDLs for mercury." As noted above, States have considerable discretion under the CWA to determine a schedule for TMDL development. There is no authority provided in the CWA for EPA to require a State to establish a particular TMDL or group of TMDLs. Thus the fact that EPA has not mandated that the ten highlighted States establish TMDLs for mercury by a date certain provides no evidence that the U.S. is failing to effectively enforce the CWA.

The Submission asserts further that EPA's failure to issue its own TMDLs where State action is inadequate is evidence of a widespread failure on the part of the U.S. to effectively enforce the CWA. There has been extensive litigation on the question of when EPA is required under the CWA to step in and establish TMDLs in a State. The courts, in construing CWA section 303(d), have noted that the statute requires EPA to act only if it *disapproves* of a State's section 303(d) submission. However, a number of courts have also developed a doctrine, known as the "constructive submission" doctrine, to conclude that EPA also has a duty to act in some cases when a State has failed to implement section 303(d) of the Act. Under this doctrine, a complete failure by a State to submit TMDLs will be construed as a constructive submission of no TMDLs, which in turn triggers EPA's nondiscretionary duty to act. *San Francisco Baykeeper v. Whitman*, 297 F.3d 877 (9<sup>th</sup> Cir. 2001). Where States have submitted TMDLs and have established schedules for completing their remaining TMDLs, courts have held under the constructive submission doctrine that such actions preclude any finding that the State has "clearly

and unambiguously” decided not to submit any TMDLs. *E.g., Baykeeper, Hayes v. Whitman*, 264 F.3d 1017 (10<sup>th</sup> Cir. 2001).

EPA has court-ordered obligations to ensure that TMDLs are established in four of the ten highlighted States (Alabama, Ohio, Pennsylvania and West Virginia). EPA is in compliance with all of those consent decrees. Furthermore, no court has construed the CWA to establish a duty for EPA to establish TMDLs simply because a State has not submitted for approval any particular TMDLs for a particular pollutant.

EPA does have discretionary authority to establish TMDLs for States.<sup>20</sup> EPA has not yet exercised its discretionary authority to establish TMDLs for mercury in any of the six highlighted States for which EPA has no consent decree obligations. That EPA has chosen not to exercise discretionary authorities provides no evidence that it has failed to perform nondiscretionary duties or has in some way failed to fully implement and enforce the CWA. Citizens that have concerns about particular waters in a State can petition the State to act or can petition EPA to exercise its discretionary authority and establish a TMDL.

**f. EPA’s approval of TMDLs for mercury is consistent with its responsibilities under the CWA.**

Submitters appear to raise two concerns regarding EPA’s approval of State TMDLs for mercury: that EPA is approving TMDLs that do not contain individual allocations for mercury air emissions from coal-fired power plants and that EPA is approving TMDLs that do not have any regulation or best management practices for mercury air emissions from coal-fired power plants. Neither of these is required by the CWA or EPA’s implementing regulations. Their absence, therefore, cannot be argued to demonstrate a failure to effectively enforce the CWA.

**i. TMDLs are not required to contain individual load allocations for mercury air emissions from coal-fired power plants.**

Submitters argue that, in the ten States highlighted in Appendix 12, only one TMDL, for the Lumber River in North Carolina, acknowledges contributions from coal-fired power plants, but that the TMDL does not include a specific load allocation for power plants. While EPA’s implementing regulations generally require that individual wasteload allocations be identified,

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<sup>20</sup> A reasonable reading of section 303(d), including its emphasis on timely development of TMDLs, coupled with the structure and purpose of the Act, show that the CWA grants EPA the discretionary authority to develop TMDLs where a State fails to do so. *See CWA section 303(d), 33 U.S.C. §1313(d); see also E.I. du Pont de Nemours & Co. v. Train*, 430 U.S. 112, 132-33 (1977) (EPA authority under CWA section 101(d) to administer the CWA includes the discretionary authority to achieve the statutory goals).

TMDLs need not identify reductions in loadings as a result of emissions from individual nonpoint sources. Instead, they may identify total reductions needed in a category of nonpoint sources, such as air deposition. Thus Submitters' concern that the TMDL does not include a specific load allocation for air emissions from power plants lacks merit.

EPA agrees that the Lumber River TMDL acknowledges contributions from power plants, and that it does not include a specific load allocation for power plants. The Lumber River TMDL, however, is consistent with EPA regulations in identifying the total contribution from air sources, and not including specific load allocations for mercury that are the result of air emissions from coal-fired utilities. Pollutant loadings from air deposition are taken into account as part of the load allocation in a TMDL. Whereas wasteload allocations identify the portion of the loading capacity allocated to individual point source(s), 40 C.F.R. §130.2(h), 40 C.F.R. §130.2(i), load allocations may range from reasonably accurate estimates to gross allotments, and allocations may be made to categories or subcategories of sources, 40 C.F.R. §130.2(g). As a result, it is consistent with EPA's regulations for TMDLs to identify the total or aggregate loadings from air deposition. It is not required that TMDLs identify the pollutant contributions that are the result of emissions from individual air sources or categories of air sources such as coal-fired power plants, nor that they provide allocations to individual air sources for their emissions to air.

Although Appendix 12 focuses on ten specific States, EPA has approved mercury TMDLs in other States that do acknowledge power plant emission contributions. These TMDLs are consistent with EPA regulations in identifying the total contribution from air sources, including the contributions from coal-fired utilities. For example, TMDLs approved in 2004 for the Narraguinne and McPhee reservoirs in Colorado acknowledge the contribution from power plants within a 200-mile radius of the reservoirs. The TMDLs also list the specific facilities that may be contributing mercury to the reservoirs, although the contribution from individual sources was not assessed. <http://www.cdphe.state.co.us/wq/Assessment/TMDL/sanjuan.html>. TMDLs approved in 2002 for the Ochlockonee River and other watersheds in Georgia included an analysis of air deposition from air sources within a 100-kilometer airshed ([http://www.epa.gov/Region4/water/tmdl/georgia/ochlockonee/final\\_tmdls/OchlockoneeHgFinalTMDL.pdf](http://www.epa.gov/Region4/water/tmdl/georgia/ochlockonee/final_tmdls/OchlockoneeHgFinalTMDL.pdf)). The analysis identified individual facilities within the airshed, including coal-fired power plants, waste incinerators, and other sources, and determined the total deposition from all of these facilities to the watershed.

EPA has been working with a number of States to develop refined modeling tools and data to assist in developing mercury TMDLs. For example, EPA has developed mercury deposition modeling methods to estimate the relative contributions to a waterbody from specific air sources, categories of air sources, and geographic areas (*e.g.*, contributions from local air sources as compared to out-of-state sources). EPA is currently working with States to apply these air modeling tools in mercury TMDLs, including TMDLs under development for waterbodies in Maryland, Minnesota, and Louisiana. Using these modeling tools, States will be able to identify the specific contributions from individual air sources or categories of sources in their TMDL analyses. In some cases, there may be significant contributions from air sources other than coal-

fired power plants. Although it is not required for the purposes of TMDLs that States identify the contributions from individual air sources, these modeling tools may assist States in identifying the need for additional management actions to address air sources of mercury.

**ii. TMDLs cannot impose requirements on mercury air emissions from coal-fired power plants.**

The Submission also states that a CEC factual record would determine which State continuing planning processes “fail to incorporate an existing TMDL or incorporates a TMDL that does not have any regulation or best management practices for mercury air emissions from coal-fired power plants.” Submission at 11. This assertion demonstrates Submitters’ fundamental misunderstanding of the TMDL process and its effects. As stated before, a TMDL provides *no* new regulatory authorities. Thus, Submitters are seeking development of a factual record on the basis that EPA has failed to take actions that EPA has no authority to take under the CWA. That is not a proper basis for the development of a factual record.

TMDLs themselves do not provide the authority for requiring controls to address impairments caused by nonpoint sources of pollutants, including atmospheric deposition, which is Submitters’ central concern. Rather, TMDLs are a planning tool for identifying what load reductions are needed to meet water quality standards. As the Ninth Circuit has recognized:

the CWA uses distinctly different methods to control pollution released from point sources and those that are traceable to nonpoint sources. *Oregon Natural Res. Council*, 834 F.2d at 849. The Act directly mandates technological controls to limit the pollution point sources may discharge into a body of water. *Dombeck*, 172 F.3d at 1096. On the other hand, *the Act* ‘provides no direct mechanism to control nonpoint source pollution but rather uses the “threat and promise” of federal grants to the states to accomplish this task,’ *id.* at 1097 (citations omitted), thereby ‘recognizing, preserving, and protecting the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, [and] to plan the development and use . . . of land and water resources . . .’ § 101(b).”

*Pronsolino v. Nastri*, 291 F.3d 1123, 1126-27 (9<sup>th</sup> Cir. 2002)(emphasis added).

With regard to nonpoint sources of pollution, the Ninth Circuit further held, “States must implement TMDLs only to the extent that they seek to avoid losing federal grant money; there is no pertinent statutory provision otherwise requiring implementation of § 303 plans or providing for their enforcement. *See* CWA § 309, 33 U.S.C. § 1319; CWA § 505, 33 U.S.C. 1365.” *Pronsolino* at 1140.

Therefore, in order to implement any reductions in pollutants from air sources identified in a TMDL, regulators must rely on other mechanisms. For example, for TMDLs involving nonpoint source emissions from air sources, State implementation of such TMDLs will generally

rely on the nationwide air reductions required under federal and State regulations promulgated under the CAA and State air regulations issued independent of the CAA. EPA anticipates that States will rely on CAIR and CAMR in implementing TMDLs that include load allocations attributable to nonpoint source air emissions. Any required controls resulting in the reduction of air deposition to water would not arise from the CWA, including section 303(d).

Finally, Submitters assert that EPA's approval of State TMDLs which do not "impose regulations or require best management practices for mercury air emissions from coal-fired power plants" undermines the TMDL program. To the contrary, EPA believes that section 303(d)'s process for identifying the causes and extent of water impairments is a vitally important means of achieving the CWA's goals. Therefore, EPA believes it is clear from the face of section 303(d), and section 303's role as part of a water quality-based approach, that Congress intended TMDL calculations to be performed for all waters, irrespective of the source of the pollutants. However, EPA cannot regulate nonpoint sources pursuant to section 303(d) by requiring load reductions from nonpoint sources. If any load reductions on a nonpoint source are required by a regulatory control, such as a permit, it is because a State, pursuant to state law, has chosen to make the load allocation identified in a TMDL mandatory. Section 303(d) does not create any new implementation authority for EPA or the States.

As the Ninth Circuit has recognized, water quality standards are about more than regulating point sources. *See Oregon Natural Desert Ass'n v. Dombeck*, 172 F.3d 1092, 1097 (9<sup>th</sup> Cir. 1998)(section 303 "does not itself regulate nonpoint source pollution. Water quality standards are established *in part* to regulate point source pollution.")(emphasis added). Section 303(d) merely affords EPA and the States the authority to identify all impairments of those standards (point source and nonpoint source) and to devise comprehensive water quality standards implementation plans (*e.g.*, TMDLs) that guide water quality standards attainment, but it does not require the regulation of nonpoint sources.

As crafted by Congress and implemented by EPA, section 303(d) plays a pivotal role in achieving the objectives of the CWA by shedding light on all sources of water quality problems and identifying reasonable, equitable solutions to those problems. Again, the 9<sup>th</sup> Circuit addressed the role of TMDLs and the role of the States in implementing them:

To assist the states in gathering information, the statutory role of the TMDL was to identify the load necessary, as a matter of engineering, to implement the water-quality standards. Without such engineering data, states would be left to guess what needs to be done to meet those standards. . . . California is free to select whatever, if any, land-management practices it feels will achieve the load reductions called for by the TMDL. California is also free to moderate or to modify the TMDL reductions, or even refuse to implement them, in light of counterveiling state interests.

*Pronsolino*, 91 F. Supp. 2d at 1355.

Accordingly, EPA has properly approved TMDLs for mercury, including TMDLs identifying nonpoint sources of pollution, such as atmospheric deposition of air emissions. These TMDLs provide valuable information to the State and the public and are an important step towards achieving the CWA's goals. Nothing in the CWA authorizes TMDLs to contain enforceable requirements for nonpoint sources including mercury emissions from nonpoint sources, and, therefore, Submitters' primary assertions are wholly misplaced.

**g. EPA is properly overseeing State continuing planning processes.**

Submitters argue that a factual record would determine which State continuing planning processes fail to incorporate an existing TMDL. However, there is at present only one TMDL in the ten States highlighted in Appendix 12 that addresses atmospheric sources of mercury, and that TMDL has been incorporated into the State's water quality management plan as required by EPA's implementing regulations.<sup>21</sup> Thus, the development of a factual record on this issue is not warranted.

In CWA section 303(e), Congress required each State to develop a "continuing planning process" ("CPP") that would result in plans for all waters within the State. 33 U.S.C. § 1313(e)(3). The CPP is required to include TMDLs, *see* CWA section 303(e)(3)(C), 33 U.S.C. § 1313(e)(3)(C), and States are required to submit their CPPs to EPA for review and approval. CWA section 303(e)(2), 33 U.S.C. § 1313(e)(2). EPA has approved the CPPs for each of the ten States highlighted in Appendix 12. 40 Fed. Reg. 55,334, 55,335 (Nov. 28, 1975). As TMDLs are established and approved in the future, EPA expects States to incorporate those TMDLs, consistent with the regulations.

**h. EPA has properly implemented the CWA with respect to the ten States of concern.**

In Appendix 12, Submitters included specific information about the TMDL programs in the ten highlighted States. While the information is for the most part accurate, it does not affect the analysis of EPA's authorities and responsibilities under the CWA. Therefore, it provides no basis for the development of a factual record.

In the supplemental materials, Submitters reviewed the 303(d) lists for the ten States and cross-referenced them with waterbodies under fish consumption advisories. Submitters also

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<sup>21</sup> 2003 Lumber River Basinwide Water Quality Plan, [http://h2o.enr.state.nc.us/basinwide/lumber\\_river\\_basinwide\\_plan\\_sept2003.htm](http://h2o.enr.state.nc.us/basinwide/lumber_river_basinwide_plan_sept2003.htm)

examined whether TMDLs are planned or have been prepared for mercury-impaired waterbodies in the ten States.

EPA reviewed the statements in the Submission regarding 303(d) lists and TMDLs in each of the ten States and examined the relevant facts in each State. In many cases, Submitters correctly identify the mercury-impaired waterbodies on each of the ten States' 303(d) lists, including those with fish consumption advisories, as well as the status and schedule for TMDL development. As the Submission itself notes, 303(d) lists in the ten States do to a large extent list waterbodies with fish consumption advisories. EPA found that the ten States are correctly listing the appropriate waterbodies with fish consumption advisories. In the few instances where there are inconsistencies between the 303(d) list and EPA guidance, EPA is working with the States to resolve those inconsistencies.

Regarding TMDL schedules, EPA notes that in four of the ten States (Alabama, Ohio, Pennsylvania, and West Virginia), there are consent decrees in place that specify the schedule for TMDL development. Thus, while TMDLs for mercury-impaired waters are at times scheduled for later development, the consent decree schedules will ensure that all necessary TMDLs will be developed. In Pennsylvania, for example, Submitters note that they are unable to find a proposed TMDL for Lake Wallenpaupak, which is identified on the State's 2004 section 303(d) list. Under the Pennsylvania consent decree, the TMDL for Lake Wallenpaupak must be established by April 9, 2005, and EPA established that TMDL on April 18, 2005.<sup>22</sup> Submitters also point to mercury TMDLs for Cold Creek Swamp and Fish River in Alabama that originally were to be developed in 2003; however, as allowed under the consent decree, that schedule has since been modified, and the TMDLs will be developed at a later date.

## **2. Submitters' Allegations Regarding U.S. Antidegradation Requirements Fail to Demonstrate Any Failure by the U.S. to Properly Implement Those Requirements.**

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As with the TMDL program, Submitters assert that the Secretariat should prepare a factual record on several issues pertaining to EPA's administration of the CWA's antidegradation provisions. First, Submitters seek the development of a factual record on whether EPA is approving inadequate State antidegradation policies and implementation procedures that fail to safeguard Tier 1 waters. This request is founded on Submitters' allegation that whenever a Tier 1 waterbody that has historically been used for fishing or has been designated as a "fishable" waterway has a mercury fish consumption advisory, that represents a violation of the antidegradation mandates. Submission, at 10.

Second, Submitters seek the development of a factual record on whether EPA is approving inadequate State antidegradation policies and implementation procedures that fail to adhere to requirements for the protection of Tier 2 waters. Specifically, Submitters allege that requirements

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<sup>22</sup> [http://www.epa.gov/reg3wapd/tmdl/pa\\_tmdl/Lake%20Wallenpaupak/index.htm](http://www.epa.gov/reg3wapd/tmdl/pa_tmdl/Lake%20Wallenpaupak/index.htm)

for the protection of Tier 2 waterbodies mean that coal-fired power plants should not be allowed to operate so long as States do not establish controls on nonpoint sources of mercury. *Id.*, at 11.

Third, Submitters seek the development of a factual record on whether EPA is approving inadequate State antidegradation policies and implementation procedures that fail to properly protect Tier 3 waters from mercury degradation from coal-fired power plants. In this regard, Submitters maintain that whenever a mercury fish consumption advisory has been issued for a Tier 3 waterway, that EPA and States are in violation of mandatory Tier 3 protections. *Id.*

The discussion below explains how EPA has been properly implementing antidegradation requirements in its regulations, and why EPA has not been approving inadequate State antidegradation policies or implementation methods. It begins with some additional background information, to assist consideration of the issue.

**a. Background on Water Quality Standards and Antidegradation**

Since a central goal of the CWA is to achieve and maintain desirable levels of water quality, the CWA mandates the development of water quality standards. An antidegradation policy is one element of a water quality standard. Once those standards are set, the States and EPA can then determine what controls on point source discharges of pollutants are necessary to achieve or maintain desired levels of water quality.

**i. Water quality standards**

Under CWA section 303(a)-(c), each State is required to adopt water quality standards for its intrastate and interstate waters, based on criteria sufficient to protect uses designated for those waters. 33 U.S.C. § 1313(a)-(c). These water quality standards consist of three elements: (1) a designated “use” of the water, such as for public water supply, recreation, propagation of fish, or agriculture; (2) “criteria,” which specify the amounts of various pollutants that may be present in those waters without impairing the designated uses, expressed either in the form of numeric concentration limits for specific pollutants or in narrative form (such as “no toxics in toxic amounts”), CWA section 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 130.3, 130.10(d)(4), 131.6, 131.10 and 131.11.; and, (3) an antidegradation policy to protect existing uses and high-quality waters. 40 C.F.R. § 131.12.

The term “water quality criteria” is used in two different contexts under the Act. As noted, under section 303, water quality standards include criteria as one element. CWA section 304(a)(1), 33 U.S.C. § 1314(a)(1), on the other hand, directs EPA to publish water quality “criteria” guidance encompassing a scientific assessment of the health and ecological effects of pollutants. With respect to mercury, EPA published its most recent section 304(a) criterion on January 8, 2001.<sup>23</sup>

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<sup>23</sup> See 66 Fed. Reg. 1344 (January 8, 2001); *see also* <http://www.epa.gov/fedrgstr/EPA-WATER/2001/January/Day-08/w217.htm>. This document



Antidegradation policies and implementation procedures are intended to maintain existing uses for all waters and provide additional protection to high quality waters. 40 C.F.R. § 131.12. The antidegradation policies adopted by the States as a part of their water quality standards must be consistent with and at least as stringent as EPA’s antidegradation regulations, set forth at 40 C.F.R. § 131.12. See *American Wildlands*, 260 F.3d at 1194; *Raymond Proffitt Found. v. EPA*, 930 F. Supp. 1088, 1091 (E.D. Pa. 1996) (citing *PUD No. 1*, 114 S. Ct. at 1906). Significantly, it is EPA’s antidegradation regulations that impose specific antidegradation “requirements.” The CWA itself did not itself impose such “requirements,” although it did not foreclose EPA’s promulgation of such requirements in regulations implementing the Act. Pursuant to EPA’s regulations, in addition to adopting an antidegradation policy, States also must “identify the methods for implementing such policy.” 40 C.F.R. § 131.12(a). Such methods are often referred to as “implementation procedures.”

Water quality standards are not self-executing. Instead, permits issued for point source discharges of pollutants under the NPDES program must include water quality-based effluent limitations when necessary to achieve the applicable water quality standard for the receiving waterbody. Section 402(a)(1).<sup>24</sup> And, as discussed above, water quality standards are also used as the basis for State actions under CWA section 303(d).

EPA’s role in the development and establishment of water quality standards, including State antidegradation policies and implementation procedures that are included in State standards, is a limited one. Whenever a State revises or adopts a water quality standard, the State must submit the standard to EPA for a determination as to whether the new standard is consistent with the Act. Section 303(c)(2); 40 C.F.R. § 131.21(a). EPA must approve or disapprove the State standard, and, if EPA disapproves, EPA must promulgate a standard for the State unless the State submits and EPA approves a standard that addresses EPA’s disapproval. Section 303(c)(3). EPA also has discretionary authority to promulgate a standard for a State whenever the EPA Administrator determines that a State needs a new or revised standard. Section 303(c)(4)(B).

As a result, consistent with the CWA’s federalism, “states have the primary role, under section 303, in establishing water quality standards. EPA’s sole function, in this respect, is to review those standards for approval.” *NRDC v. EPA*, 16 F.3d at 1401 (internal citation omitted); *City of Albuquerque v. Browner*, 97 F.3d 415, 425 (10th Cir. 1996). See also *American Wildlands*, 260 F.3d at 1194 (“Congress clearly intended the EPA to have a limited, non-rulemaking role in the establishment of water quality standards by states . . .”) (quoting *City of Albuquerque*, 97 F.3d at 425). “The [CWA] requires EPA to determine whether the standard is

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superceded the previous criterion document that was published in 1998. See 63 Fed. Reg. 68,354 (Dec. 10, 1998) corrected at 64 Fed. Reg. 19,781 (Apr. 22, 1999).

<sup>24</sup> All NPDES permits must also include technology-based limitations calculated without regard to water quality standards. See *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 204-05 (1976).

‘consistent with’ the Act’s requirements.” *Mississippi Comm’n on Natural Resources v. Costle*, 625 F.2d 1269, 1276 (5<sup>th</sup> Cir. 1980). EPA’s role in reviewing a State’s antidegradation policy and implementation procedures is limited to ensuring that the policy and procedures are consistent with 40 C.F.R. § 131.12.

## ii. Antidegradation policies

As noted above, the federal antidegradation requirements appear in EPA’s implementing regulations. The CWA itself does not prescribe antidegradation requirements. EPA’s regulations, however, require each State or authorized Tribe to adopt, as part of its water quality standards, an antidegradation policy consistent with, or more stringent than, EPA’s antidegradation regulation, set forth at 40 C.F.R. § 131.12.

EPA’s antidegradation regulation establishes three “tiers” of water quality protection: Tier 1, Tier 2, and Tier 3. Tier 1 protection sets forth the baseline level of protection applicable to all waters in the State, regardless of their quality, and provides that “[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” 40 C.F.R. § 131.12(a)(1).<sup>25</sup>

Tier 2 protection applies to “high quality waters” (*i.e.*, waterbodies whose water quality is better than needed to support the propagation of fish, shellfish and wildlife and to support recreation in and on the water). 40 C.F.R. § 131.12(a)(2). Tier 2 protection is primarily procedural. For a State to authorize lower water quality on a Tier 2 water, the State must, *inter alia*, determine that “allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.” 40 C.F.R. § 131.12(a)(2). In other words, lowering of water quality for Tier 2 waters may be allowed, but the State must first make the necessary determination.

For waters that States identify as “an outstanding National resource,” Tier 3 protection provides that their “water quality shall be maintained and protected.” 40 C.F.R. § 131.12(a)(3). Thus, if a State identifies a waterbody as a Tier 3 water, the State may not allow a lowering of water quality (except for a short term or temporary change) for that water (as it may for Tier 2 waters).

In addition to adopting an antidegradation policy, States also must “identify the methods for implementing such policy.” 40 C.F.R. § 131.12(a). Such methods are often referred to as “implementation procedures.” While States have discretion in the approach of their antidegradation implementation procedures, the procedures, like the States’ antidegradation policies, must be consistent with EPA’s antidegradation regulation.

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<sup>25</sup> “Existing uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.” 40 C.F.R. § 131.3(e).

In understanding how the antidegradation requirements are implemented, it is important to emphasize two points. First, EPA’s antidegradation regulation only applies to States and authorized Tribes. The regulation requires that States and authorized Tribes adopt antidegradation requirements that are consistent with, or more stringent than, EPA’s requirements. It is then the State or Tribal antidegradation requirements that will be the applicable water quality standards for use in CWA regulatory programs (e.g., CWA section 402 NPDES permits).

Second, as discussed above, under the CWA, water quality standards are not directly enforceable. *Defenders of Wildlife and Forest Guardians v. U.S. EPA*, No CIV-02-150 (D. N.M. 2004) at 3 (“The CWA does not require that states make their water quality standards directly enforceable against dischargers causing or contributing to such exceedence.”). Under the CWA, point source discharge permits are required to include effluent limitations necessary to meet water quality standards, including State antidegradation requirements, but it is the resulting permit effluent limitations, not the standards themselves, that are enforceable under the CWA. *See American Wildlands v. Browner*, 94 F.Supp.2d 1150, 1161 (D. Colo. 2000).<sup>26</sup> Therefore, the provisions of State antidegradation policies are implemented during issuance of NPDES permits, by ensuring appropriately stringent effluent limitations in those permits for point sources.

**b. Neither the CWA nor EPA’s antidegradation regulation authorizes EPA to regulate nonpoint sources of pollution or to require States or authorized Tribes to regulate nonpoint sources of pollution.**

A central theme of the Submission is the claim that water quality standards, specifically antidegradation requirements, are the primary CWA mechanism for controlling nonpoint sources of pollution. Submission at 6. The Submission further identifies emissions from coal-fired power plants as nonpoint sources of mercury pollution, and alleges that the federal government must ensure controls are required for those sources pursuant to the CWA. *Id.* at 10.

As with TMDLs, however, Submitters incorrectly presume that Congress authorized EPA under the CWA to regulate or compel States to regulate or otherwise control nonpoint sources of pollution, be it through TMDLs or antidegradation requirements. The U.S. courts have recognized this for many years. For example, as the United States Court of Appeals for the Fourth Circuit recognized as long ago as 1976: “Congress consciously distinguished between point source and nonpoint source discharges, giving EPA authority under the Act to regulate only the former.” *Appalachian Power Co. v. Train*, 545 F.2d at 1373; *see also American Wildlands*, 260

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<sup>26</sup> EPA articulated this in a preamble to a rule establishing water quality standards for Idaho waters. 62 Fed. Reg. 41,162, 41,178-79 (July 31, 1997) (“However, the CWA does not make water quality standards (or TMDLs) directly enforceable, that is, EPA’s enforcement authority under section 309 of the Act and citizen suits under section 505 cannot be used to enjoin or seek penalties from someone simply because they are violating a water quality standard. Rather enforcement actions are directed against persons discharging without a permit or failing to comply with a permit or an administrative order.”).

F.3d at 1197; *Kennecott Copper Corp. v. EPA*, 612 F.2d 1232, 1243 (10<sup>th</sup> Cir. 1979); *United States v. Earth Sciences, Inc.*, 599 F.2d 368 at 371.

Consistent with this settled law, Submitters are wrong when they allege that EPA’s antidegradation policy “mandates control” of nonpoint sources of pollution in both the “creation of the state antidegradation policy and in its implementation.” Appendix 12, at 15. Indeed, the United States Court of Appeals for the Tenth Circuit has squarely held that EPA does not have the power to disapprove State antidegradation policies on the basis of how those policies deal with nonpoint source pollution. *American Wildlands v. Browner*, 260 F.3d at 1197-98 (“Because the Act nowhere gives the EPA the authority to regulate nonpoint source discharges, the EPA’s determination – that Montana’s water quality standards exempting nonpoint source discharges from antidegradation review are consistent with the Act – is a permissible construction of the Act.”).

The Submission further, and more specifically, contends that the absence of provisions in State antidegradation policies to control nonpoint source pollution from utility units is evidence that EPA is approving State policies that “illegally fail to control nonpoint sources of mercury from power plants.” Appendix 12, at 15. For example, Submitters contend that EPA’s Tier 2 regulations provide that no degradation may occur unless best management practices have been implemented for all nonpoint sources of pollution (including mercury emissions from coal-fired power plants). Submission, at 11; Appendix 12, at 16. In this regard, Submitters focus on the last sentence of EPA’s antidegradation regulation at 40 C.F.R. § 131.12(a)(2), which provides, in pertinent part that, before a State can allow a lowering of water quality for a Tier 2 water, “the State shall assure that there shall be achieved . . . all cost-effective and reasonable best management practices for nonpoint source control.” Submission, at 11. As EPA has explicitly and consistently explained, however, this provision does not require States to establish nonpoint source controls:

EPA has interpreted 131.12(a)(2) as not requiring a State [] to establish [best management practice] requirements for nonpoint sources where such [best management practice] requirements do not exist. As EPA clarified in a February 22, 1994 guidance memorandum, State [] antidegradation rules need only include provisions to assure achievement of [best management practices] that are required *under State [] nonpoint source control laws or regulations*.

63 Fed. Reg. 36,741, 36,784-85 (EPA’s Advanced Notice of Proposed Rulemaking, or “ANPRM”) (internal citations omitted)(emphasis added); *see also* ANPRM at 36,780 (“[A]pplication of antidegradation requirements to activities that are otherwise unregulated under State, Tribal, and federal water law is not required by the federal water quality standards regulation”);<sup>27</sup> *Ohio Valley Environmental Coalition v. Horinko*, 279 F.Supp.2d 732, 763 (D.

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<sup>27</sup> EPA made the same points even more strongly in its 1994 Water Quality Standards Handbook (“WQSH”):

W.Va. 2003) (“States are not required to regulate *nonpoint* sources, but if a State does not assure that best management practices are achieved for nonpoint source control the State cannot permit a lowering of water quality from *point* sources on any Tier 2 water, economic or social necessity notwithstanding.”) (emphases added).

The U.S. emphasizes that antidegradation reviews for Tier 2 waters apply in the context of particular authorization for a point source to discharge, such as an NPDES authorization. The antidegradation policy requires the permitting authority and point source permit applicant to undergo a Tier 2 antidegradation review if the point source discharge to a high quality water would lower water quality as compared to the prior discharge.

Accordingly, EPA’s antidegradation regulation, in specifying that States must have regulations that do not authorize a lowering of the quality of a Tier 2 water unless “all cost-effective and reasonable best management practices for nonpoint source control” have been achieved, 40 C.F.R. § 131.12(a)(2), simply requires that States that choose to regulate nonpoint sources pursuant to state law ensure that those State-required nonpoint source controls are properly implemented before a lowering of water quality from *point source* discharges may be authorized on a Tier 2 water. 40 C.F.R. § 131.12(a)(2). Under EPA’s regulations, the extent to which a State’s antidegradation policy applies to nonpoint sources depends upon the extent to which state law regulates nonpoint sources and the extent to which the State voluntarily applies its antidegradation policy to unregulated nonpoint sources. EPA’s regulation does not require that States establish nonpoint source controls as part of their antidegradation policies. Therefore, there is no basis for Submitters’ claim that EPA has approved inadequate State antidegradation policies and implementation procedures, because the policies and procedures do not control nonpoint source pollution, including emissions from coal-fired power plants.

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Section 131.12(a)(2) does not mandate that States establish controls on nonpoint sources. The Act leaves it to the States to determine what, if any, controls on nonpoint sources are needed to provide for attainment of State water quality standards. (See CWA Section 319.) States may adopt enforceable requirements, or voluntary programs to address nonpoint source pollution. Section 40 C.F.R. 131.12(a)(2) does not require that States adopt or implement best management practices for nonpoint sources prior to allowing point source degradation of a high quality water. However, States that have adopted nonpoint source controls must assure that such controls are properly implemented before authorization is granted to allow point source degradation of water quality.

WQSH at 4-8, AR330. *See also* Great Lakes Supplemental Information Document at 204, (“despite the broad applicability of water quality standards, mechanisms to implement water quality standards may not exist in all circumstances. Neither the antidegradation provisions contained in the final Guidance, nor existing regulations, confer any additional authority upon States, Tribes or EPA to regulate nonpoint sources of pollution.”).

In addition, the U.S. notes that to the extent Submitters' claims on antidegradation (or any other issue) may be characterized as challenging EPA activity involving standard-setting (*e.g.*, approvals of state policies or standards), such claims have been recognized by the Secretariat as being outside the scope of NAAEC Art. 14/15. *See e.g. Great Lakes (A14/SEM/98-003/05/14(1)(2))* (Sept. 8, 1999), at 8-9; *Great Lakes (A14/SEM/98-003-03/14(1))* (Dec. 14, 1998), at 5-6.

**c. Mercury FCAs are not *per se* evidence of violations of antidegradation requirements.**

In addition, Submitters allege that the existence of mercury fish consumption advisories is, in and of itself, evidence of violations of the CWA and antidegradation requirements. Submitters allege that: (1) whenever a "fishable" waterway becomes subject to a mercury FCA, the water "by definition" is exceeding its applicable water quality standards (Appendix 12, at 13); (2) whenever a FCA is issued for a Tier I or Tier III water historically used or designated for fishing, federal and State governments are in "violation" of Tier I and Tier III antidegradation requirements (Submission at 10-11); and (3) every time a State issues a FCA for a water for which fishing is an existing or designated use, the uses "have been rescinded or lost in violation of the CWA." (Appendix 12, at 13-14). In Appendix 12, Submitters provided data from the ten States mentioned above, identifying waters for which the States have issued mercury FCAs.

Consistent with the discussion above, however, FCAs do not, in and of themselves, establish that a State's water quality standard is not being attained. In fact, FCAs generally are not part of State water quality standards – State issuance of FCAs is voluntary. Moreover, even when a State issues a FCA, the advisory does not necessarily mean that the applicable water quality standards are not being attained. This is true even for waters with designated uses of "fishing." For example, a primary purpose of State FCAs is to provide information and cautionary advice to the general population and/or sensitive subpopulations on the amounts of fish to consume from specified waters. The waters, however, may still be attaining a general "fishing" use. State designated uses generally are based on certain levels of assumed fish consumption. Therefore, advice to the public to limit consumption above those levels would not mean that the State's designated fishing use is not being attained.

Notwithstanding this pivotal infirmity in Submitters' argument, however, EPA recognizes that, on a case-by-case basis, waters subject to mercury FCAs may also not be attaining their applicable designated use of fishing. As discussed in the section of this Response on the implementation of CWA section 303(d)'s listing requirements, the States and EPA have identified many waters with mercury FCAs as also not attaining applicable water quality standards for mercury. For waters that are identified as not meeting water quality standards, the States will develop TMDLs as appropriate.

There are other reasons, too, why the existence of a mercury FCA for a Tier 1 water that has been designated or historically used for fishing, or for a Tier 2 or 3 water that is designated for fishing, does not mean that EPA or States are in "violation" of antidegradation requirements as

Submitters allege. As discussed above, antidegradation requirements, as elements of State water quality standards, are implemented in the context of issuing CWA discharge permits for point sources. As is well documented, the dominant source of mercury pollution in waters is air deposition from various sources, which are not point sources subject to regulation under the CWA. Implementation of antidegradation requirements in CWA discharge permits thus will not affect the dominant sources of mercury loading to U.S. waters and resulting levels of mercury in the fish in those waters, because those permits only control point source discharges. Accordingly, there is no basis for the allegation that FCAs for Tiers 1, 2, or 3 waters mean that EPA or States have “violated” antidegradation requirements. Similarly, there is no basis for an allegation that the existence of FCAs means that EPA has approved State antidegradation policies or implementation procedures that fail to comply with the requirements of EPA’s antidegradation regulation.

Contrary to Submitters’ allegations, the existence of FCAs does not mean that a State’s designated fishing uses have been “rescinded or lost” in violation of the CWA. Appendix 12 included data from the ten highlighted States identifying waters designated for fishing that also are subject to FCAs. Appendix 12, at 13-14. State water quality standards, including designated uses, however, cannot be rescinded or changed unless the State goes through a process consistent with 40 C.F.R. § 131.20 and obtains EPA approval pursuant to CWA section 303(c). Indeed, the information that Submitters have provided demonstrates that the States have not rescinded or changed their designated uses of fishing. The States have issued FCAs on waters with designated uses of fishing because it is known or expected that fishing will occur on these waters. The existence of mercury FCAs, therefore, simply represents precautionary decisions by State public health officials to advise their citizens concerning possible risks of consuming fish that may have elevated levels of mercury. They do not represent a change in the States’ water quality standards.

Further evidence that these State standards have not been rescinded or changed, moreover, is provided by the waters that appear on the States’ CWA section 303(d) lists. If the States had rescinded their designated uses of fishing, the waters would not be impaired for those uses and would not need to be listed under section 303(d).

Finally, even if a fishing use were considered to be currently “lost” because the State issued a FCA for a waterbody, that would not represent a “violation of the CWA” as alleged by Submitters. The presence of elevated levels of mercury in waters of the U.S. does not mean that either EPA or the States are violating the CWA or failing to properly implement the CWA. The CWA’s section 303(d) TMDL program is a recognition that there will be waters that do not attain their water quality standards. As with mercury, the fact that a waterbody does not meet its water quality standards might have little or nothing to do with implementation of the CWA. Under section 303(d), however, waters not attaining standards are identified, and TMDLs will be developed. If, as is the case with mercury, the dominant sources of the pollutant are not sources that can be regulated under the CWA, the fact that the water is not attaining standards does not represent a “violation of the CWA.”

**3. Submitters' Allegations Regarding NPDES Program Requirements Do not Demonstrate Any Failures by the U.S. to Properly Implement Those Requirements.**

Submitters' last set of CWA allegations concerns EPA's implementation of the NPDES program, which regulates nonpoint source discharges of pollutants. In this respect, Submitters' fundamental assertion is that point source discharges of mercury are not allowed for waterways that are currently under FCAs for mercury. Submission, at 12. Essentially, Submitters assert that the existence of an FCA means that a waterbody is not in attainment of its water quality standards, and that, if a water body is impaired due to mercury, there can be no point source discharges of mercury. Submitters' TMDL and antidegradation assertions focus on atmospheric deposition of coal-fired power plant air emissions as nonpoint sources, but Submitters' NPDES assertions focus on direct discharges of mercury from coal-fired power plants to water from point sources.

As was true of Submitters' basic assertions about TMDLs and antidegradation, this assertion is supported by neither the CWA nor EPA's implementing regulations. First, as discussed above, the applicable water quality standard and the fish consumption advisory differ in purpose and scope. Thus, the presence of an FCA does not necessarily mean that a water is not attaining its water quality standard. Second, even if a water is not attaining a water quality standard, the CWA does not bar existing, or even new, point source discharges to that waterbody. Therefore, it is possible to permit such discharges under the NPDES program consistent with the CWA.

The U.S. recognizes, however, that the issues surrounding mercury, including water quality criteria, analytic testing methods, and development of NPDES permits and TMDLs, are complicated ones, and they are of great concern to EPA. The Agency is implementing a number of initiatives that it believes will help State permit writers develop appropriate permits for point source discharges of mercury. Further, in light of the information newly provided by Submitters, EPA commits to reviewing closely the renewal of the approximately 40 permits identified by the Submission for facilities that have reported significant discharges of mercury directly to water under the TRI.

**a. Overview of NPDES Program**

The NPDES permit program is the principal means for implementing both technology-based requirements and water quality standards. CWA sections 402(a)(1), 301(b)(1)(C), 33 U.S.C. § 1342(a)(1), 1311(b)(1)(C); 40 C.F.R. § 122.44(a), (d)(1). An NPDES permit transforms those general requirements and standards into specific limits applicable to an individual discharger.

NPDES permits are issued by EPA or, in those jurisdictions in which EPA has authorized a State agency to administer the NPDES program, by a State agency subject to EPA review. *See* section 402(a)-(d), 33 U.S.C. § 1342(a)-(d). All NPDES permits must contain: (1) technology-based controls that reflect the pollution reduction achievable through particular equipment or



process changes, *see E.I. duPont de Nemours & Co. v. Train*, 430 U.S. at 126-36; and (2) where necessary, more stringent limitations representing that level of control necessary to ensure that the receiving waters achieve water quality standards developed pursuant to section 303, 33 U.S.C. § 1313. *See* section 301(b), 33 U.S.C. § 1311(b).

The second category of controls, consisting of water quality-based effluent limits, is required by section 301(b)(1)(C) of the Act, which provides:

In order to carry out the objective of this chapter there shall be achieved -- . . . (C) not later than July 1, 1977, *any more stringent limitation, including those necessary to meet water quality standards*, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

33 U.S.C. § 1311(b)(1)(C) (emphasis supplied). Once standards have been adopted, permit limits must be established as necessary to attain and maintain the standards, without consideration of the availability or effectiveness of treatment technologies. *See Arkansas v. Oklahoma*, 112 S. Ct. 1046, 1054 (1992).

Under CWA section 402(b), 33 U.S.C. § 1342(b), States may seek authority to administer their own NPDES programs and issue NPDES permits. Section 402(b) includes criteria governing EPA's approval of State NPDES program authority. CWA section 304(i), 33 U.S.C. § 1314(i), provides EPA with authority to establish minimum requirements for such State programs. EPA also has the statutory authority to withdraw its approval of a State NPDES program entirely. *See* CWA section 402(c), 33 U.S.C. § 1342(c). Under CWA section 402(c), if EPA reaches a determination, "after public hearing, that a State is not administering [its NPDES] program . . . in accordance with the requirements of this section," EPA is to notify the State and withdraw its NPDES program authority "if appropriate corrective action is not taken [by the State] within a reasonable time," not to exceed 90 days from the date of notification. CWA section 402(c)(3), 33 U.S.C. § 1342(c)(3).<sup>28</sup>

Under CWA sections 309(a)(1) and (3), 33 U.S.C. § 1319(a)(1) and (3), EPA retains the authority to issue compliance orders to, or bring civil actions against, persons who violate the

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<sup>28</sup> EPA's regulations implementing the CWA's NPDES program explain in detail when and how EPA may proceed to withdraw a State program. *See* 40 C.F.R. Part 123. EPA may order the commencement of withdrawal proceedings on its own initiative or "in response to [an administrative] petition from an interested person alleging failure of the State to comply with the requirements of this part [*i.e.*, Part 123] as set forth in § 123.63." 40 C.F.R. § 123.64(b)(1). In the latter case, among other requirements, the petitioner bears "the burden of coming forward with the evidence" demonstrating satisfaction of the withdrawal criteria. 40 C.F.R. § 123.64(b)(1).

conditions of a State NPDES permit or other requirements of the Act. If EPA finds that such violations “are so widespread that [they] appear to result from a failure of the State to enforce such permit conditions or limitations effectively,” it is authorized to take certain defined steps to require improvements in the State enforcement program, and to initiate “federally assumed enforcement” until the improvements are made by the State. CWA section 309(a)(2), 33 U.S.C. § 1319(a)(2).

**b. The presence of a mercury FCA does not mean that a water is not meeting its WQS for mercury, or that the NPDES system is not being effectively implemented.**

As discussed above, applicable water quality standards and fish consumption advisories differ in purpose and scope. Thus, for many States and Tribes, the numeric water quality criteria values that are part of the water quality standards and the fish (and shellfish) consumption advisory levels for the same waterbody differ, due to the inherent differences in the technical and risk assessments used to develop them. The CWA provides that NPDES permit limits be protective of applicable water quality standards, which may or may not provide the same level of protection as a FCA. Thus, Submitters’ NPDES allegations are misplaced. To facilitate the consideration of these assertions, the U.S. provides below additional, pertinent background concerning the NPDES program, particularly as regards point source discharges from coal-fired power plants, and discusses Submitters’ assertions at length.

**i. Additional NPDES background and information specific to point source discharges from coal-fired power plants**

**a) Generally**

As mentioned above, under the CWA, States adopt water quality standards for their rivers, streams, lakes, and wetlands. These standards identify levels for pollutants, including mercury, that must be met in order to protect human health, fish, and wildlife. No person may discharge pollutants, including mercury, from a point source into waters of the U.S. unless the person has an NPDES or other CWA permit. *See* CWA sections 301(a) and 402, 33 U.S.C. §§ 1311(a), 1342. Under the CWA, either EPA or States and authorized Tribes issue NPDES permits, which must include limits that ensure that water quality standards are met. More particularly, these permits must contain: (1) technology-based effluent limitations, which represent the degree of control that can be achieved by point sources using various levels of pollution control technology, *see* CWA sections 301, 304, and 306, 33 U.S.C. §§ 1311, 1314, 1316; and (2) more stringent limitations, commonly known as water quality-based effluent limitations (WQBELs), when necessary to ensure that the receiving waters achieve applicable water quality standards. *See* CWA section 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C).<sup>29</sup> In addition, EPA and States issue information to the

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<sup>29</sup> When developing water quality-based effluent limits, the permitting authority must ensure that the level of water quality achieved by such limits is “derived from and complies with water quality standards.” *See* 40 C.F.R. § 122.44(d)(1)(vii)(A).

public on waters contaminated with mercury and the harmful effects of mercury, and warn people about eating fish containing high levels of methylmercury.

**b) Effluent guidelines applicable to coal-fired power plants – establishment and review**

To facilitate implementation of the NPDES system for those coal-fired and other power plants that discharge effluent containing mercury from the facility to water (as opposed to air deposition), EPA established its Effluent Limitation Guidelines for the Steam Electric Power Generating Point Source Category on November 19, 1982. 40 C.F.R. Part 423. The provisions of this part are applicable to discharges resulting from the operation of a generating unit by an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing coal and other fossil-type fuels. In issuing this guideline, EPA considered establishing, but did not establish, a technology-based effluent limitation for mercury. At the time the guideline was developed, mercury could not be detected in power plant effluent using the analytical methods available.

EPA has a public process to consider these and other effluent guidelines for development or revision. First, EPA conducts an annual review of all existing effluent limitations guidelines to identify candidates for revision, pursuant to CWA sections 304(b) and 301(d), 33 U.S.C. §§ 1314(b), 1311(d). EPA also publishes an Effluent Guidelines Plan every other year, in which EPA identifies existing effluent guidelines for potential revision and potential new categories for effluent guidelines development. The Plan is required by CWA section 304(m), and is subject to public notice and comment under CWA section 304(m)(2), 33 U.S.C. § 1314(m)(2).

In its 2004 annual review, EPA did not identify the Steam Electric category as a priority for effluent guidelines revision at that time. *See* 69 Fed. Reg. 53,705, 53,717 (Sept. 2, 2004). EPA did not have sufficient information to assess the magnitude of the environmental and health hazards associated with pollutant discharges directly to water from this category, and determined that it would collect more information to resolve these data gaps during the 2005 annual review. *See id* at 53716-17. *See also* Technical Support Document for the 2004 Effluent Guidelines Plan (August 2004) at 5-73 to 5-87.

**ii. Water quality-based effluent limitations and FCAs**

To reiterate a point emphasized in the foregoing discussion, the existence of a FCA does not, in and of itself, mean that a waterbody is not in attainment of its standards. Moreover, even if a specific waterbody is impaired due to mercury, the CWA does not bar all point source discharges of mercury to that waterbody.

As noted above, CWA section 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C), provides for the achievement of limitations “necessary to meet water quality standards. . . .” EPA has promulgated regulations implementing this section’s requirement for water quality-based effluent limits or “WQBELs.” The NPDES regulations at 40 C.F.R. §122.4(i) currently regulate the

issuance of a permit to a new source or new discharger whose discharge will *cause or contribute to* a violation of water quality standards.<sup>30</sup>

Significantly – and critical to an evaluation of Submitters’ assertions – this regulation does not establish an absolute prohibition on new permits for point sources on impaired waters. Instead, implementation of this regulation prevents a new source or new discharger from receiving a permit to discharge a pollutant for which a water body is impaired pending the completion and EPA approval of a TMDL, *if* these discharges would “cause or contribute to the violation of water quality standards.” A permit therefore may be issued if the discharge would not cause or contribute to the exceedance of the water quality standards.

Moreover, this regulation applies only to “new sources” and “new dischargers,” as defined in sections 122.2 and 122.29 of the NPDES regulations. Existing dischargers, as well as new sources and new dischargers, are subject to the regulation at 40 C.F.R. § 122.44(d)(1)(vii) (A). That regulation provides that when developing water quality-based permit effluent limitations, the permitting authority is to set the limitations to ensure that the level of water quality to be achieved “is derived from, and complies with all applicable water quality standards.” In addition, if a TMDL has been established, the regulation provides that the effluent limitations must be consistent with the assumptions and requirements of any approved wasteload allocation (*i.e.*, rationing of pollutant loadings among point sources). 40 C.F.R. § 122.44(d)(1)(vii)(B).

### **iii. Permits may be written for discharges into impaired waters**

Establishing the proper water quality-based effluent limit in a specific permit is a fact-based determination involving, among other factors, the type of pollutant discharged, the applicable water quality standard, the ambient water quality, flow, and siting. There are, as discussed below, a number of ways to develop a permit which ensures that a particular discharge does not cause or contribute to an exceedance of water quality standards. Thus, the Submission’s assertion that the existence of point source discharges of mercury to waterbodies impaired by mercury is *per se* evidence that EPA is failing to effectively enforce the CWA’s NPDES provisions represents an erroneous understanding of the requirements of the CWA.

The Supreme Court held more than a decade ago that “[a]lthough the Act contains several provisions directing compliance with state water quality standards, *see, e.g.*, § 1311(b)(1)(C), the parties have pointed to nothing that mandates a complete ban on discharges into a waterway that is in violation of those standards.” *Arkansas v. Oklahoma*, 503 U.S. 91, 108 (1992). The Court further held that “rather than establishing [a] categorical ban . . . – which might frustrate the construction of new plants that would improve existing conditions – the CWA vests in the EPA and the States broad authority to develop long-range, areawide programs to alleviate and eliminate existing pollution. *See, e.g.*, § 1288(b)(2).” *Id.* Thus, the CWA certainly does not require

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<sup>30</sup> This regulation was promulgated as 40 C.F.R. § 122.67(i) on June 7, 1979.

existing point source dischargers to impaired waters to cease discharging when even *new* dischargers may begin discharging to impaired waters.

Likewise, in *Idaho Sportsmen's Coalition, et al. v. Browner, et al.*, the court addressed an argument by plaintiffs that the court should issue an order prohibiting EPA from approving any new point source discharges into an impaired water that lacks a TMDL. The court determined that individual permitting decisions were the appropriate means of addressing the issue of permits for new sources on impaired waters. The court found that "Plaintiffs' request for injunctive relief prohibiting EPA from approving any new point source discharges into an WQLS [impaired water] that lacks a TMDL is premature. The NPDES process itself involves water quality controls and it has not been shown that the issuance of any particular permit would result in a violation of water quality standards. A blanket prohibition would not be justified by the present record." *Idaho Sportsmen's Coalition, et al. v. Browner, et al.*, No. C93-943WD, Order on Motions for Summary Judgment and Injunction (May 19, 1995).

Indeed, in 1979 when EPA published its notice of pollutants suitable for TMDL development, the Agency recognized that the NPDES process would continue, given that "State development of TMDL's and wasteload allocations for all water quality limited segments will be a lengthy process. Water quality standards will continue to be enforced during this process. Development of TMDL's pursuant to section 303(d) is not a necessary prerequisite to adoption or enforcement of water quality standards . . ." 43 Fed. Reg. 60,662, 60,665 (Dec. 28, 1978).

Determining whether a new discharge will cause or contribute to an exceedance of water quality standards (or establishing a limit for an existing discharge which derives from and complies with water quality standards) is thus done on a case-by-case basis. To date, EPA has not formally interpreted its regulations with respect to what conditions, if present, would allow for permit issuance to new sources, new dischargers or existing dischargers proposing to discharge their effluent into impaired waters. In practice, however, permitting has occurred consistent with current regulations.

Permits have been issued, for example, to dischargers whose discharges do not contain the pollutant causing the impairment. EPA, by practice, has not considered this to "cause or contribute to the violation of water quality standards."

Second, permits, where appropriate, are issued to dischargers with effluent limitations at or below either the numeric water quality criteria or a quantification of a narrative water quality criterion. Again, EPA, by practice, has not considered this to "cause or contribute to a violation of water quality standards." Where the background level of the pollutant in the receiving water is greater than the criteria, the stream is in non-attainment, and the aquatic environment or human health admittedly is adversely impacted. However, a point source discharging a pollutant at criteria end-of-pipe in such situations will discharge effluent containing a lower concentration of the pollutant than the receiving water, and therefore, will not increase the pollutant concentration in the waterway. Such a discharger may, in fact, cause the ultimate pollutant concentration in the receiving water to decrease as a result of an increase in flow. Therefore, the Agency believes, and

has stated in the past, that establishing limits on point sources under these circumstances at criteria end-of-pipe is consistent with the underlying environmental objectives of the CWA. The Supreme Court, too, has recognized “the benefits to the river from the increased flow of relatively clean water.” 503 U.S. at 114.

It is also possible for a discharger to be issued a permit, under appropriate circumstances, where it is demonstrated that other pollutant source reductions (such as nonpoint source reductions implemented by the discharger) will offset the discharge in a manner consistent with water quality standards. The ultimate result of this type of “offset” or “trade” may be a net decrease in the loadings of the pollutant of concern in the impaired water and, therefore, be considered not to “cause or contribute to a violation of water quality standards.”

An additional possibility is that the regulatory authority may authorize a period of time to attain compliance with an applicable effluent limit. Such a compliance schedule could be authorized in the permit or in an enforcement action. Compliance schedules are discretionary, and should be provided only when the permittee demonstrates, and the permitting authority determines, that a schedule to achieve the water quality based effluent limit is necessary and appropriate. If a compliance schedule is not specified, immediate compliance with the permit limit is required. (EPA’s regulations at 40 C.F.R. § 122.47(a)(1) require that compliance occur “as soon as possible.”) This determination must be made on a facility-by-facility basis. EPA’s policy with respect to compliance schedules is that NPDES permits may contain compliance schedules where the applicable State water quality standard was promulgated or interpreted after July 1, 1977, the State water quality standard or implementing regulations explicitly authorize schedules of compliance, and other relevant provisions of applicable State and federal law allow for schedules of compliance.

Thus, there are a number of ways to issue NPDES permits for point source discharges to impaired waters in accordance with the CWA and EPA regulations. Of course, all of these determinations regarding whether a discharge will cause or contribute to an exceedance of water quality standards would need to be made on a case-by-case basis. However, because such permits can be lawfully issued under the CWA, Submitters’ NPDES theory lacks merit.

**c. Toxic Release Inventory (“TRI”) Information**

That being said, however, EPA has gained useful information from Submitters, and plans to use that information to assist its implementation of the NPDES program in the future. This information consists of the mercury TRI data discussed in Appendix 12.<sup>31</sup>

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<sup>31</sup> Submitters did not bring this information to EPA’s attention either in their notice preceding the filing of the Submission pursuant to NAAEC Art. 14.1(e) or in the original Submission itself.

More specifically, Appendix 12 presents data for mercury and mercury compounds, reported by certain coal-fired electric utilities in the ten States highlighted in that document, under section 313 of the Emergency Planning and Community Right-to-Know Act, commonly known as the Toxics Release Inventory (TRI). For example, Submitters assert, “(a)ccording to TRI data for 2002, 1,237 pounds of mercury were directly released to water from various industries across the U.S. Of that amount 503 pounds of mercury were released to water from electric utilities. Fifty-three electric generating facilities in the continental U.S. reported releases to water of more than one pound and as much as 58 pounds.” Appendix 12, at 12 (footnotes omitted). Appendix 12 identifies facilities in each of the ten highlighted States that discharge mercury directly to water. There is not an exact correlation between TRI data and NPDES permitting data, primarily because facilities make “reasonable estimates” of quantities of pollutants released into the environment for TRI purposes. Nevertheless, EPA believes the TRI data identified by the Submission should be considered by State permit writers and EPA permit reviewers as these facilities’ permits come up for renewal.

**i. The NPDES permit development process and TRI data**

**a) Permit application**

Each NPDES permitting authority relies primarily on information submitted by the permit applicant as part of the NPDES permit application process. Through this process, the permit writer gains an understanding of the circumstances of the discharge and the characteristics of the proposed effluent that will allow proper development of permit limitations and conditions. When it is determined that a facility needs an individual permit, the facility must submit an application for a permit. Application forms and requirements are specific to the type of facility and discharge. NPDES permit application regulations are contained in 40 C.F.R. Part 122, Subpart B. Most application requirements are contained in forms developed by EPA. It should be noted that authorized States are not required to use the EPA application forms. However, any alternative form used by an authorized State must contain the information required in 40 C.F.R. Part 122, Subpart B. An application form must be submitted for permit renewals.

**b) Determining when effluent limitations are necessary**

The determination of whether water quality-based effluent limits (“WQBELs”) are necessary, and where necessary, the level of water quality to be achieved by the WQBEL, are determined on a permit-by-permit basis, to satisfy CWA section 301(b)(1)(C) and 40 C.F.R. § 122.44(d)(1). NPDES regulations at 40 C.F.R. § 122.44(d)(1)(i) require the establishment of an effluent limit for any pollutant that is or may be discharged at a level that “will cause, have a reasonable potential to cause, or contribute” to an excursion above any applicable State water quality standard. In determining the need for an effluent limit for mercury from a particular point source, the permit writer must consider existing controls on other point and nonpoint sources that contribute mercury to the waterbody in question, the variability of the pollutant or pollutant parameter in the discharge, and, where appropriate and allowed in State water quality standards or

regulations, the dilution of the discharge in the receiving water. 40 C.F.R. § 122.44(d)(ii). EPA's Technical Support Document for Water Quality-based Toxics Control provides guidance on how to apply these requirements.

c) **Determining the need for NPDES permit limits with effluent monitoring data, and recent advances in EPA's methodology for analyzing effluent for the presence of mercury**

Facility-specific effluent monitoring data should be used, where available, to project receiving water concentrations, which are then compared to applicable water quality criteria. An important consideration for evaluating facility-specific effluent data for mercury is the analytical test method used. NPDES regulations require that permittees submit effluent monitoring data that is representative of the discharge using analytical test methods approved under 40 C.F.R. Part 136. See § 122.41(j)(1) and (4). There are multiple approved test methods for the analysis of mercury available in 40 C.F.R. Part 136.

In June 1999, Method 1631 was promulgated at 40 C.F.R. Part 136, for use in the various CWA monitoring programs, including the NPDES program. This new analytical procedure was developed for detecting and measuring total and dissolved mercury in water and fish samples, and has proven to be approximately 400 times more sensitive than EPA's previously recommended analytical method (Method 245). Following that original rulemaking, several successive revisions have been published in response to stakeholder recommendations, such as clarification of the use of field blanks and other requirements, increased flexibility, clarity, and performance, frequently asked questions, and use of clean techniques. The rule promulgating the current version, Method 1631 Revision E, became effective in November 2002.<sup>32</sup>

Between 1999 and 2002, permit writers may have required use of the new method inconsistently. This relative lack of use of the new method in favor of less sensitive analytic procedures has led to determinations of no reasonable potential to exceed water quality standards in many facilities' permits, since application data show that mercury has not been detected in the effluent of many more facilities. However, EPA has expected since November 2002 that the permitting authority would use the appropriate analytic method. Thus mercury will be detected at many more facilities, and this will likely lead to the establishment of WQBELs for mercury in a greater number of permits.

A review of the permits for the coal-fired power plants identified by Submitters in the ten highlighted States indicates that permitting authorities have not consistently required that facilities utilize the newest, most sensitive analytical method available for detecting and measuring mercury in their effluent. Use of the older test methods would not likely result in the detection of mercury

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<sup>32</sup> See <http://www.epa.gov/waterscience/methods/1631.html> for more information on Method 1631. That web page includes links to Federal Register notices pertaining to the original method and the subsequent revisions, as well as a number of fact sheets.



in the effluent. Additionally, the threshold for reporting mercury releases from the electric generating facilities for purposes of the TRI has only recently been substantially lowered.<sup>33</sup> Because of this, NPDES permit writers have not traditionally considered TRI data as a source of relevant information on potential discharges of mercury. EPA will encourage State permit writers to consider TRI data for coal-fired power plants as appropriate for these ten highlighted States and expect the plants to explain any discrepancies in the data reported.

If the permitting authority chooses to impose an effluent limit without facility-specific effluent monitoring data, it will need to provide adequate justification for the limit in the permit fact sheet. However, the permitting authority should obtain facility-specific mercury monitoring data using Method 1631 before permit re-issuance. The permitting authority may obtain these data through the information gathering authority under CWA section 308 or similar State authority.

**d. EPA's planned next steps**

EPA is implementing a number of initiatives that the U.S. believes will help State permit writers develop appropriate permits under the CWA for discharges of mercury. EPA believes that the use of new, more sensitive analytical methods, the adoption of new criteria for methylmercury, and the consideration of surface water discharge data from TRI will lead to improvements in the quality of NPDES permits.

Accordingly, EPA will recommend that permitting authorities require facilities to monitor mercury discharges to water using the appropriate version of Method 1631. This would allow for characterization of effluent from all facilities for which mercury discharges were previously unknown or undetected, so that facilities contributing to water quality impairment can be identified. At the time of permit issuance, the facility's permit application should contain at least one data point that was analyzed with Method 1631. To further reinforce the use of the appropriate analytical test method, EPA intends to propose revisions to its permit application requirement regulations for industrial discharges and associated permit application forms to specifically require the use of Method 1631 wherever mercury monitoring is required. Where a regulatory authority has inadequate information to determine reasonable potential for an excursion of a water quality standard, there may still be a cause for concern on the part of the authority. The permit should contain monitoring requirements for mercury, and a reopener clause to address the concern in such cases. The clause would require the permit to be reopened and a limit to be

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<sup>33</sup> The reporting thresholds for mercury metal and mercury compounds were lowered to 10 pounds in 2000, when EPA determined that mercury and mercury compounds are highly persistent, bioaccumulative, toxic chemicals (PBTs). On October 29, 1999, EPA's TRI Program published a final rule titled "Persistent Bioaccumulative Toxic (PBT) Chemicals; Lowering of Reporting Thresholds for Certain PBT Chemicals; Addition of Certain PBT Chemicals; Community Right-to-Know Toxic Chemical Reporting." 64 Fed. Reg. 58,665. In addition, electric utilities were not initially subject to the TRI. In 1997, several new industry sectors, include metal mining, electric utilities, and hazardous waste treatment facilities, were made subject to the reporting requirements.

established based upon any test results or other new factors substantiating that the effluent causes, has the reasonable potential to cause, or contributes to an excursion above the applicable water quality standard.

In addition, EPA has published a new recommended section 304(a) water quality criterion for methylmercury that describes the concentration of methylmercury in freshwater and estuarine fish and shellfish tissue that should not be exceeded, in order to protect consumers of fish and shellfish among the general population. 66 Fed. Reg. 1344 (Jan. 8, 2001). EPA expects the criterion recommendation to be used as guidance by States, authorized Tribes, and EPA in establishing or updating water quality standards for waters of the U.S. and in issuing fish and shellfish consumption advisories. This is the first time EPA has issued a water quality criterion expressed as a fish and shellfish tissue value rather than as a water column value. This approach is a direct consequence of the scientific consensus that consumption of contaminated fish and shellfish is the primary human route of exposure to methylmercury. EPA recognizes that this approach differs from traditional water column criteria, and will pose implementation challenges. In the notice, EPA provided suggested approaches for relating the fish and shellfish tissue criterion to concentrations of methylmercury in the water column. EPA believes that flexibility will be needed when designing control programs to meet this water quality criterion because mercury is highly persistent in the environment and because air deposition is the primary source of mercury for many waterbodies. EPA's new criterion will better align fish consumption advisories with water quality standards, and EPA believes the number of waterbodies with mercury impairments (3,182 waters in 42 States) is likely to increase when States adopt new methylmercury fish tissue criterion.

EPA recognizes that States and authorized Tribes will need additional, specific procedures and water quality program guidance in order to implement the new fish tissue water quality criteria. 66 Fed. Reg. 1357 (Jan. 8, 2001). EPA is in the process of drafting that implementation guidance. The guidance will address issues associated with States and authorized Tribes adopting the new water quality criterion into their water quality standards programs and implementation of the revised water quality criterion in TMDLs and NPDES permits, including approaches for addressing waterbodies where much of the mercury comes from atmospheric sources and how TMDLs can take into account ongoing efforts to address sources of mercury, such as programs under the Clean Air Act and pollution prevention activities. This guidance also may include a recommended approach for directly incorporating the methylmercury tissue criterion in NPDES permits. As States adopt the new criteria and implementation procedures, permit writers will more easily be able to determine appropriate WQBELs for mercury.

In sum, both EPA's new more sensitive test method and EPA's new water quality criterion use the most current science to enable EPA to detect and monitor more mercury contaminated waters than ever before. Additionally, they will enable EPA and the States to take faster action to permit mercury dischargers, and subsequently monitor discharges. These actions will assist in reducing mercury contamination to waterbodies.

EPA will also encourage State NPDES permit writers to consider TRI data, as appropriate, for mercury discharges directly to water from coal-fired electric power plants in the ten highlighted States that do not submit effluent monitoring data using Method 1631 at the time of permit renewal. EPA expects the plants will explain any discrepancies in the data reported. Finally, EPA commits to reviewing closely the renewal of the approximately 40 permits identified by Appendix 12 for power plants that have reported significant discharges of mercury to water under the TRI.

Thus, while Submitters are incorrect as to the legal requirements of the CWA with respect to point source discharges of mercury when a waterbody is impaired due to mercury, EPA recognizes that the complex issues surrounding mercury contamination can lead to permitting difficulties. EPA has taken steps that will, among other things, help States and the Agency better monitor and address through permitting actions direct point source discharges of mercury to waters of the United States. In addition, EPA will pay close attention to the permits of particular concern to Submitters in the ten States highlighted in Appendix 12.

#### **IV. U.S. ACTIONS IN INTERNATIONAL FORA TO ADDRESS MERCURY USES, RELEASES, AND EXPOSURE**

As the discussion in Sections I-IV above demonstrates, EPA is effectively enforcing its domestic CAA and CWA programs with regard to mercury emissions to air and direct discharges to water from coal-fired power plants. In addition to the domestic measures described above, however, the United States also is engaged in the implementation of a wide range of bilateral, regional, and international programs and agreements to reduce mercury uses, releases, and its adverse impacts. The U.S. highlights those efforts here, including the Great Lakes Binational Toxics Strategy, an agreement between the U.S. and Canada signed in 1997; the North American Regional Action Plan (NARAP) for Mercury (the “Mercury NARAP”), which stems from the NAAEC and CEC Council Resolution #95-5; and efforts the U.S. is undertaking within the parameters of the United Nations Environment Programme (UNEP) concerning mercury, including, but not limited to, the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution Protocol on Heavy Metals, and the United Nations Industrial Development Organization (UNIDO) Global Mercury Project.

The Great Lakes Binational Toxics Strategy provides an important framework for U.S. and Canadian bilateral action to reduce or eliminate mercury and other persistent toxic substances. Among other things, the Strategy sets forth challenge goals to reduce mercury use by 50 percent and to reduce releases by 50 percent by 2006, working from the 1990 baseline.

The Mercury NARAP likewise provides an important framework within which to address mercury contamination in North America. The CEC Council approved Phase I of the Mercury NARAP in October 1997. Phase I sets out the strategic framework and approach to be used by the three countries. Phase II, adopted on March 16, 2000, identifies discrete mercury use and reduction actions that Canada, Mexico, and the United States will undertake within their countries and collectively through a coordinated tri-national effort. Action Items in the Phase II Mercury

NARAP “represent recommendations of the Council to the Parties . . . .” Phase II Mercury NARAP, Preamble.

Building in part on the Great Lakes Binational Toxics Strategy, Action Item 1a.(i) and Annex I of the Phase II Mercury NARAP call upon the Parties to “endeavor to attain a 50 percent reduction nationally in mercury emissions by the year 2006 from existing major stationary sources,” including combustion installations with a net rated thermal input exceeding 50 MW, based on 1990 or equivalent emissions inventories. Of greatest pertinence to Submitters’ allegations, Action item 1b of the Phase II Mercury NARAP (“Electric power generating sector”) calls upon the Parties to “investigate various options and strategies to obtain reductions in mercury emissions from the electric power generating sector, consistent with the 50 percent reduction target... and including an evaluation of multi-pollutant approaches. . . .”

The U.S. has made considerable progress in implementing the provisions of the Mercury NARAP and the Great Lakes Binational Toxics Strategy regarding mercury air emissions. As discussed above, overall U.S. mercury air emissions already have been reduced by 45 percent since 1990. Taken together, the recently promulgated CAIR and CAMR will reduce coal-fired power plant mercury emissions by nearly 70 percent from 1999 levels when fully implemented. These reductions reflect a dynamic and significantly improving situation with regard to the mercury air emissions, consistent with the Mercury NARAP and the Great Lakes Binational Toxics Strategy.

Under the UNIDO Global Mercury Project, EPA has provided funding and technical expertise to assist in providing training on best management practices to reduce occupational exposures, to reduce emissions, and to reduce the amount of mercury used in small-scale artisanal gold and silver mining operations around the world. EPA also has been an active partner in the Arctic Mercury Project, which was developed in the context of the Arctic Council Action Plan (ACAP) and the Arctic Monitoring and Assessment Program (AMAP). EPA has worked to strengthen capacity building and technical cooperation programs among the Arctic countries, particularly to assist Russia in the development of Russia’s Mercury Action Plan.

More recently, at the twenty-third session of the UNEP Governing Council, which was held in Nairobi, Kenya, February 21-25, 2005, delegates agreed to develop further the UNEP Mercury Program and to support the efforts of countries to take action to reduce mercury uses, releases, and exposure. Governments agreed to develop and implement partnerships with international organizations, non-governmental organizations and the private sector to reduce the risks that result from the release of mercury to the environment. The partnerships created will leverage resources, technical expertise, technology transfer, and information exchanges to provide immediate, effective action that will result in tangible reductions in mercury releases. EPA is an active participant in these partnerships and is committed supporting the UNEP Mercury Program to achieve global mercury reductions.

Thus, through these international activities as well, the U.S. continues to take positive steps aimed at addressing the presence of mercury in the environment. Given the strong set of

domestic and international steps the U.S. is taking in this area, under the Secretariat's determinations in *Ontario Power Generation* and *Great Lakes* there is no need for a factual record to inquire into the actions of the U.S. to reduce mercury air emissions from coal-fired power plants and their impacts on water.

**V. EXISTENCE OF PENDING PROCEEDINGS AND OTHER ISSUES ARISING UNDER THE NAAEC**

Although the substantive considerations discussed above should resolve this matter, there also are important procedural reasons why this matter should not proceed further. The U.S. discusses these reasons below.

**A. Pending Judicial And Administrative Proceedings Should Preclude Further Review, Pursuant To NAAEC Article 14.3(a)**

As mentioned in Section I above, NAAEC Art. 14.3(a) provides that a Party, in its response to an Art. 14 submission, shall advise the Secretariat "whether the matter is the subject of a pending judicial or administrative proceeding, in which case the Secretariat shall proceed no further . . . ." This provision should be applied in this case, for the reasons discussed below.

**1. Clean Air Act Proceedings**

As explained in Section II above, EPA recently issued certain final rules under the CAA that directly relate to mercury emissions from domestic coal-fired power plants. These rules, again, are CAIR, CAMR, and the final Section 112 rule.<sup>34</sup> These rules are central to Submitters' concerns, which focus on control of mercury air emissions from domestic coal-fired power plants.

The CAA contains detailed provisions governing actions for judicial review of agency action taken under the Act. In CAA section 307, Congress granted the U.S. Court of Appeals for the District of Columbia Circuit exclusive jurisdiction to review, among other things, challenges to nationally applicable final rules. CAA section 307(b)(1), 42 U.S.C. § 7607(b)(1). Section 307(d) further provides that interested parties have 60 days from the date of publication of a final rule in the Federal Register to file a petition for review of that rule in the relevant federal court of appeal. *Id.* § 7607(d).

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<sup>34</sup> EPA issued one proposed rule in January 2004, which included two discrete proposed regulatory actions: (1) the proposed revision of the December 2000 regulatory finding and removal of power plants from the CAA section 112(c) list; and (2) the issuance of CAA section 111 standards of performance for coal-fired power plants (the "Proposed Utility Rule"). 69 Fed. Reg. 4652 (Jan. 30, 2004). As noted above, Submitters commented on this proposed rule. In March 2005, EPA issued two final rules, one of which addressed the revision of the December 2000 finding and removal of power plants from the section 112(c) list ("the final Section 112 rule"), and the other of which sets standards of performance for coal-fired power plants ("CAMR"). EPA responded to the Submitters' comments in the final CAMR.

Several States have filed petitions for review of the Section 112 rule in the U.S. Court of Appeals for the District of Columbia Circuit. The Section 112 rule is the only one of the final three power plant rules that has been published to date in the Federal Register. EPA anticipates that CAIR and CAMR will be published in the Federal Register soon and that those rules also will be challenged.<sup>35</sup> Such challenges will be heard in the U.S. Court of Appeals for the District of Columbia Circuit, as those proposed rules are of nationwide scope and effect.

The CAA also provides interested parties important administrative rights following issuance of a final rule. In particular, under CAA section 307(d), interested parties can file petitions for reconsideration of a final rule. CAA section 307(d), 42 U.S.C. § 7607(d). In such a petition, a party can raise objections to the final rule at issue, but the party must demonstrate either that it was impracticable to raise such objections during the public comment period, or that the grounds for the objections arose after the public comment period but within the time period specified for judicial review and that the objection is of central relevance. *Id.* § 7607(d)(7)(B). If EPA grants a petition for reconsideration, it will convene a proceeding for reconsideration of the final rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. *Id.* EPA has received correspondence from certain environmental groups, indicating their intent to file petitions for reconsideration of the Section 112 rule. EPA anticipates that petitions for reconsideration of CAIR and CAMR will be filed as well. Thus, there will be additional administrative process under the CAA, insofar as EPA will need to review and respond to any administrative petitions to reconsider any of the three final power plant rules.

In light of the foregoing, the U.S. maintains that the Secretariat should proceed no further, consistent with NAAEC Art. 14.3(a). The three final power plant rules directly address one of Submitters' core concerns – mercury air emissions from domestic coal-fired power plants. One of those rules is currently in litigation in the United States Court of Appeals for the District of Columbia Circuit, and EPA expects that similar judicial challenges to the other two rules will be filed shortly. EPA maintains that it has properly implemented the CAA with regard to controlling mercury emissions to air from domestic coal-fired power plants, and that it will prevail in any litigation concerning the three final rules. In the event, however, that EPA does not prevail on a particular aspect of any of the three final rules, the judicial remedy would, at a minimum, include a remand of the matter to the Agency for further administrative proceedings. *See, e.g., Florida Power & Light v. Lorion*, 470 U.S. 729, 743-44 (1985).

Given the pending and anticipated judicial and administrative proceedings concerning the three recently issued CAA power plant rules, no factual record should be recommended. *See* NAAEC Art. 14.3(a). This is because a factual record could interfere with those processes on issues common to those raised by the Submission. *See Methanex* (A14/SEM/99-001/06/14(3))(June 30, 2000), at 7. Submitters effectively concede that the issues in the ongoing and prospective administrative and judicial proceedings involving the Section 112 rule and

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<sup>35</sup> Indeed, according to recent press reports, the litigants who recently challenged the Section 112 rule intend also to challenge CAMR, once it is published in the Federal Register.

CAMR, at least, are common to issues raised by the Submission, by relying on Waterkeeper Alliance's comment letter to EPA on the Proposed Utility Rule as notice of this Submission under NAAEC Art. 14.1(e). See Section V.C below.

Finally, there is another judicial proceeding concerning mercury emissions from domestic coal-fired power plants that is pending in the U.S. District Court for the District of Columbia. That case is *Izaak Walton v. EPA*, Civ. Action No. 04-694 (RWR) (D.D.C. filed April, 2004). The plaintiffs in that action allege that EPA has a mandatory duty to issue CAA section 112(d) emission standards for, among other things, mercury emitted to the air from domestic coal-fired power plants. CAA section 304, 42 U.S.C. § 7604 (judicial review provision authorizing lawsuits alleging a failure to comply with a mandatory duty in the CAA). EPA recently moved to dismiss the case for lack of subject matter jurisdiction. EPA argued in its motion to dismiss that the lawsuit is moot because the final Section 112 rule, among other things, removes coal- and oil-fired power plants from the section 112(c) list, and therefore EPA has no mandatory duty to issue section 112(d) emission standards. The matter is still pending.

## **2. CWA Proceedings**

In addition, there are a number of CWA-related judicial actions pending that involve matters within the scope of Submitters' assertions.

First, citizens have filed judicial actions under CWA section 505(a)(2), 33 U.S.C. § 1365(a)(2), seeking to require EPA to establish TMDLs in 39 States by a date certain. As a result, EPA currently has obligations under court orders or consent decrees entered by courts to develop TMDLs in 22 States. Failure by EPA to comply with the deadlines established in the orders and decrees could result in the Agency being found in contempt of court and subject to appropriate sanctions. The States in which EPA is under a consent decree to ensure development of TMDLs includes four of the ten States in the Submission. These four States and their corresponding judicial actions are Alabama (*Edward W. Mudd, et al. v. Hankinson, et al.*, No. CV-97-S-0714-M (N.D. Ala.); Ohio (*National Wildlife Federation, et al. v. EPA, et al.*, No. C2-01-1052 (S.D. Ohio); Pennsylvania (*American Littoral Society, et al. v. EPA, et al.*, No. 96-489 (E.D. Pa); and West Virginia (*Ohio Valley Environmental Coalition, Inc, et al. v. Browner, et al.*, No.2:95-0529 (S.D. W.Va.). The consent decrees established priorities and deadlines for establishing TMDLs in these States. The deadlines extend from 2007 (West Virginia) to 2009 (Pennsylvania).

## **3. Definition Of "Judicial Or Administrative Proceedings"**

In light of the pending and anticipated litigation and administrative proceedings over EPA's recent mercury air rules, as well as the continuing litigation over TMDL and antidegradation issues in five of the ten States highlighted in Appendix 12, the U.S. submits that, pursuant to NAAEC Art. 14.3(a), Secretariat review should go no further in this matter.

The U.S. recognizes that the definition of "judicial or administrative proceeding" in NAAEC Art. 45.3 leaves ambiguity as to whether judicial litigation challenging Party

administrative action or inaction comes within the scope of Art. 14.3(a)'s prohibition of Secretariat review. The U.S. submits however, that the spirit of Art. 45.3 clearly is to include the gamut of Party actions in the classical sphere of enforcement, such as judicial penalty actions against violators of environmental laws. Moreover, as the Secretariat has recognized in the past, Art. 14.3(a) "[s]uggests that the Parties intended to foreclose a review of enforcement matters actively being pursued by any Party." *BC Hydro* (A14/SEM/97-001/07/ADV(April 27, 1998), at 7. The Secretariat has further emphasized that the reasons supporting Art. 14.3(a) include: "(a) the need to avoid a duplication of effort; and (b) the need to avoid interfering with pending litigation." *Id.* at 10. Indeed, the Secretariat has gone so far as to state that "[t]hese considerations apply to both proceedings that fall within the Art. 45(3)(a) definitional requirements as well as to other proceedings outside of that specific provision." *Id.* The power of these considerations should not be underestimated. As the Secretariat has stressed, "[c]ivil litigation is a complex undertaking governed by an immensely complicated body of rules, procedures and practices. The Secretariat is reluctant to embark on a process which may unwittingly intrude on one more of the litigant's strategic considerations." *Id.* "Nor," as the Secretariat has remarked, "would it be appropriate for the submission review process to 'second guess' a domestic court on the meaning of a provision or on the disposition of factual or legal matters before that court." *Id.*

These considerations are directly relevant to the instant submission. It would be incongruous and counterproductive to interpret the NAAEC to include, on the one hand, both classic enforcement activity and administrative regulatory activity within the definition of "enforcement," *see* NAAEC Arts. 45.1(a) and 5.1, but, on the other hand, not to treat those two classes of "enforcement" activity equally under Art. 14.3(a). *See Oldman River I* (A14/SEM/96-003/12/15(1) (April 2, 1997), at 3 (list of enforcement actions in Art. 45.3 is exemplary, not exclusive).<sup>36</sup>

The Secretariat also should bear in mind that, when the Submission and Appendix 12 were filed, the Proposed Utility Rulemaking (the CAMR and section 112 rulemaking) rulemaking was very much an administrative proceeding undertaken by the U.S., and will continue to be so, as EPA reviews and examines petitions for reconsideration that it knows will be filed on the final Section 112 rule and anticipates will be filed on CAIR and CAMR. Thus, but for a quirk of timing in the date of the filing of this Response, proceedings on reconsideration indisputably would be an ongoing administrative proceeding "pursued by a Party." NAAEC Art. 45.3(a). For example, had the U.S. response been due before the conclusion of the CAA rulemakings, or after a petition for reconsideration of those rulemakings had been filed, the Secretariat unmistakably would be required to follow the command of Art. 14.3(a). The mere fact that the U.S. is now defending one of those rules in a follow-on judicial challenge and soon will be defending the others, and that no petition for reconsideration has yet been received, should not unduly sway the

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<sup>36</sup> *But see BC Logging* (A14/SEM/00-004/14/ADV (July 27, 2001), at 16) (offering more restrictive reading list of actions contained in Art. 45.3(a); *BC Mining* (A14/SEM/98-004/10/ADV) (May 11, 2001) (same) .



analysis. Indeed, as discussed above, the defense by the U.S. of EPA's administrative actions should be regarded simply as the continuation of those same actions.

## **B. Pursuit Of Available Private Remedies Under NAAEC Art. 14.3(b)**

In addition, NAAEC Art. 14.2(c) instructs the Secretariat, in evaluating a submission, to consider whether private remedies available under a Party's law have been pursued. NAAEC Art. 14.3(b) similarly provides that a Party may speak in its response to, among other things, "whether private remedies in connection with the matter are available to the person or organization making the submission and whether they have been pursued." The U.S. submits that these provisions, as well, weigh against the recommendation of a factual record in this instance.<sup>37</sup>

### **1. Available Private Remedies Under the CAA**

First, even if pending and anticipated litigation over the Section 112 rule, CAMR and CAIR did not outright preclude further review under Art. 14.3(a), it would be prudent under Art. 14.3(b) to refrain from preparation of a factual record in light of that litigation. Submitters' central concern is the deposition to U.S. waters of mercury emitted to the air from U.S. coal-fired power plants. Indeed, Submitters proffer the comments they submitted to EPA during the Proposed Utility rulemaking process (the CAMR and section 112 rulemaking), as their notice of the instant matter under Art. 14. As explained above, there is currently pending litigation over the final Section 112 rule and the litigants that have challenged that rule have indicated to the press that they plan to challenge CAMR once that rule is published in the Federal Register. The pending and anticipated litigation concerning the three rules that EPA recently issued affecting U.S. coal-fired power plants and mercury emissions to air from those plants bears precisely on the core matter at issue here. The preparation of a factual record would, at a minimum, be premature until that litigation is concluded. See *Methanex* (A14/SEM/99-001/06/14(3)(June 30, 2000), at 7; *accord BC Logging* (A14/SEM/00-004/14/ADV (July 27, 2001), at 17.

Further, although Submitters' Title V arguments, as noted above, lack merit, if Submitters have specific concerns or challenges to a particular Title V permit in the future (*e.g.*, if a Title V permit issued in the future does not contain the newly promulgated CAMR requirements), the CAA provides ample administrative and judicial remedies to those alleged to be aggrieved by a Title V permit. For example, the public can comment on any initial permit application, permit renewal, or significant modification of a permit, and any interested member of the public can petition EPA to object to a CAA Title V permit. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. §§ 70.7(h), 70.8(d). Appeal rights under Title V include, but are not limited to, the right to sue EPA in the

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<sup>37</sup> The U.S. recognizes that some of the Submitter organizations might have members that are not U.S. citizens, although the degree to which this may be the case is not clear for the Submission. This does not change the private remedies analysis below, because NAAEC Art. 14.3(b)(2) and Guideline 7.5(b) do not, by their terms, require that each Submitter organization in a multi-entity submission, like this, be able to avail itself of each private remedy identified.

relevant federal court of appeals if EPA denies a petition to object to a Title V permit. 42 U.S.C. §§ 7661d(b)(2), 7607(b)(1); *see also* 42 U.S.C. § 7661a(b)(6). Submitters have made no showing that they have attempted to pursue these remedies or would encounter significant barriers in attempting to pursue them in the future.

## **2. Available Private Remedies for Review of Action or Inaction Involving the CWA**

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Although Submitters' claims of ineffective enforcement of the CWA, as noted above, also lack merit, a host of private remedies are available to Submitters to pursue their allegations that EPA is failing to effectively enforce the CWA:

- Submitters can petition EPA to take specific administrative action with respect to the NPDES, TMDL, or water quality standards programs, and EPA would be required to respond within a reasonable time. Section 555(b) of the Administrative Procedure Act (APA), 5 U.S.C. § 555(b).
- Submitters can seek redress in federal court for alleged agency inaction with respect to their allegations of ineffective enforcement, CWA section 505(a), 33 U.S.C. § 1365(b), or for agency action unreasonably delayed, APA section 706(1), 5 U.S.C. § 706(1).
- Submitters can seek review in federal court of actions that are within the scope of the submission, including issuance of NPDES permits by EPA; approval or disapproval of any element of a State NPDES program, including revisions to approved State programs; and EPA's decision to withdraw or not to withdraw a State's authority to administer an NPDES program. CWA section 509(b), 33 U.S.C. § 1365(b).
- Submitters can seek APA review in federal court of final EPA actions that are not covered by CWA section 509(b), including EPA issuance of TMDLs, EPA approval or disapproval of state-issued TMDLs, EPA promulgation of antidegradation requirements, and EPA approval or disapproval of State antidegradation requirements. APA section 704, 5 U.S.C. § 704.
- Submitters can participate in administrative and judicial review of EPA-issued NPDES permits that they believe are unlawful. *See e.g.* 40 C.F.R. Part 122.21, *ff.*; 124.6, *ff.* (permit application process and procedures for decision making); CWA section 509(b)(1)(F), 33 U.S.C. § 1369(b)(1)(F) (judicial review of final permit in federal court). Comparable provisions exist for public participation in State permitting processes and opportunities for judicial review. *See* CWA section 402(b), 33 U.S.C. § 1342(b); 40 C.F.R. § 123.30.

- Submitters can bring “citizen suits” alleging, for example, that a coal-fired power plant had violated the terms of its NPDES permit. CWA section 505(a) and (b), 33 U.S.C. § 1365(a) and (b).

### **3. Pursuit of Available Private Remedies Would Not Unduly Burden Submitters**

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Submitters’ allegations that they would be unduly burdened by recourse to the ample remedies available under U.S. law are cursory and unsubstantiated. As noted in Section I above, Guideline 7.5(b) instructs that the Secretariat should bear in mind that barriers to the pursuit of private remedies *may* exist in *some* cases, implying that, in most cases, such barriers should not be lightly inferred. Certainly, in this case, there has been no reasonable showing that Submitters confront genuine and problematic barriers to the pursuit of private remedies. Rather, Submitters simply theorize that a case-by-case approach would be unduly time-consuming and burdensome. This undervalues the effect of precedent in the U.S. legal system. Given the power of precedent in that system, Submitters’ assertions that they would have to pursue a long series of case-by-case proceedings if left to pursue private remedies are exaggerated.

It is evident, moreover, that Submitters have made no serious attempt to pursue the myriad private remedies that are available to address the specific allegations they raise with respect to the deposition of mercury from coal-fired power plants into waters of the U.S. *See* NAAEC Arts. 14.2(c), 14.3(b).<sup>38</sup> For example, Submitters do not explain why it would be burdensome to file a lawsuit in the United States Court of Appeals for the District of Columbia Circuit, challenging any or all of the three recently issued CAA power plant rules. Moreover, it is difficult to conceive how challenging certain nationally applicable rules under the CAA constitutes piecemeal litigation. Instead, it is Submitters’ request that the Secretariat investigate their allegations of failure to effectively enforce environmental law that will result in piecemeal analysis and interference with domestic administrative and judicial proceedings.

Moreover, Submitters have demonstrated themselves capable of bringing litigation when they believe EPA is not discharging its legal duties. Searches of U.S. federal caselaw on WestLaw, for example, for reported decisions involving individual Submitters and mentioning the CWA, yield 879 reported federal decisions involving Sierra Club alone, and 145 such decisions

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<sup>38</sup> Submitters argue in broad, conclusory terms that they and their representatives “have taken many actions to push the U.S. to effectively enforce the CWA. For instance, both Sierra Legal and Waterkeeper Alliance commented on the adequacy of the proposed mercury air rule.” Submission, at 14. Submitters thus point to their comment letter in the CAA rulemaking proceeding as an “action[] to push the U.S. to effectively enforce the CWA.” As noted in Section V.A.1 above, this confirms that the issues in the pending and anticipated administrative and judicial proceedings involving the CAMR and the Section 112 rule are common to issues raised by the Submission, and that the Secretariat should proceed no further.

involving Friends of the Earth.<sup>39</sup> Moreover, the very TMDL litigation discussed in the Submission demonstrates that, when organizations have brought their complaints to the federal courts, they often have been able to obtain substantial redress.

Accordingly, refraining from further review and remitting Submitters to their private remedies would not place an undue burden on Submitters and would give effect to the considerations of economy and orderly administration that underlie NAAEC Arts. 14.2(b) and 14.3(c). The Submitters, therefore, should be remitted to those remedies.

**C. Attempted Notice Under NAAEC Art. 14.1(e)**

Finally, NAAEC Art. 14.1(e) provides that the Secretariat may consider a submission asserting that a Party is failing to effectively enforce its environmental law if the Secretariat finds that “the matter has been communicated in writing to the relevant authorities of the Party. . . .”

Submitters rely on two communications to demonstrate compliance with Article 14(1)(e). The first, Appendix 7 to the Submission, is embodied in a letter from Waterkeeper Alliance to EPA commenting on EPA’s Proposed Utility Rule under the CAA. *See* fn. 34. Submitters argue that in the comment letter, “[T]he EPA’s attention was drawn to the failure to enforce the antidegradation provisions of the CWA.” Submission, at 12. The second, Appendix 6 to the submission, is a one-and-a-half page letter from Sierra Legal Defence Fund to the Administrator dated June 15, 2004. The Submission quotes from Sierra Legal’s letter as follows:

We wish to bring to your attention our concern that the Environmental Protection Agency is not taking appropriate and necessary action to prevent the contamination of water bodies with mercury emitted from coal-fired power plants in the Ohio Valley and elsewhere in the U.S. *We believe this contamination violates the Clean Water Act, including the water quality standard, anti-degradation, and Great Lakes provisions of the Act.*

Submission, at 13 (emphasis added).

Although Submitters rely on Waterkeeper Alliance’s comment on the CAA Proposed Utility Rule as notice of their antidegradation claims, there is no assertion that the comment provides notice on any other aspect of the Submission. Nor can the comment fairly be considered as notice of the instant Submission in any respect. The comment was only one small part of one of over 500,000 comments on the Proposed Utility Rule. Moreover, the focus of the comment letter was on the alleged failure of *the Proposed Utility Rule* to properly consider issues allegedly arising under the CWA. Its focus distinctly was *not* on alleged failures in the *CWA*

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<sup>39</sup> Searches were done in Westlaw’s ALLFEDS database for cases naming Sierra Club or Friends of the Earth in their titles. Narrower searches in ALLFEDS, for cases naming these organizations in their titles and including the terms “Clean Water Act” or “Clean Air Act,” yield 312 decisions involving Sierra Club, and 77 involving Friends of the Earth.

*antidegradation program*, much less on communicating a request that EPA take action under the CWA consistent with the theories ultimately set forth in the Submission.

Similarly, while Sierra Legal’s letter expresses concern about the contamination of waterbodies by mercury emissions from coal-fired power plants, and provides some brief statements of Sierra Legal’s understanding of various provisions of the CWA, the only direct allegation of noncompliance with the CWA is the single sentence highlighted in the quote above. That sentence does not even mention the NPDES program, which ultimately was one of the major subjects of the Submission. The NPDES program receives only passing mention in a later statement in Sierra Legal’s letter that “urges” EPA to take steps to ensure compliance with the CWA, but does not allege any failure to effectively enforce. Moreover, little if anything in Sierra Legal’s notice could fairly be construed as setting forth adequately – and notifying EPA of – the legal interpretations of the CWA’s TMDL, antidegradation, and NPDES provisions that undergird Submitters’ allegations in the CEC context, much less as setting forth a set of requests that EPA act on such theories. On the contrary, the letter simply “urge[s] the EPA,” in broad, unspecific terms, “to take all possible steps to ensure compliance with the CWA, whether through its oversight functions of that Act, the issuance of permits under the National Pollutant Discharge Elimination System, or other powers.” Submission, Appendix 6, at 2.

Submitters’ purported notice should not be considered adequate notice of the complicated set of allegations and voluminous supporting materials ultimately reflected in the Submission. The U.S. urges this view not merely as a technical matter, but due to significant concerns about good government and conservation of CEC resources, important goals that the notice provision serves. Had EPA received adequate notice of Submitters’ actual legal theories, as opposed to the cursory and relatively ambiguous material contained in Waterkeeper’s comment letter on the Proposed Utility Rule and Sierra Legal’s letter, it could have clarified for Submitters the misconceptions on which the Submission eventually rested. Following such clarification, it is possible that Submitters would never have felt a need to submit an Art. 14 submission, or would have submitted a more focused submission. Indeed, EPA’s Response herein, both on the whole and, for example, concerning NPDES permits and TRI evidence, is strong evidence that EPA – once fairly apprised of Submitters’ actual concerns – is prepared to answer those concerns, and to take additional action, as appropriate, aimed at resolving those concerns. Accordingly, the failure of notice in this case should lead to a recommendation against preparation of a factual record.

## CONCLUSION

For the host of reasons above, the development of a factual record would not be appropriate in this matter. This analysis shows that the U.S. course of action as concerns mercury stemming from coal-fired power plants “reflects a reasonable exercise of [U.S.] discretion in respect of . . . [the] regulatory matters” at issue, and also reflects a dynamic and significantly improving regulatory regime. Submitters have shown no failure on the part of the U.S. to effectively enforce the provisions of U.S. environmental law on which the Submission rests. Moreover, the pending and anticipated administrative and judicial proceedings bar further action

by the Secretariat, and available private remedies are adequate to resolve any concerns Submitters may wish to continue to press. Accordingly, the U.S. requests that, in light of this response, and pursuant to NAAEC Art. 15.1, the Secretariat determine that the development of a factual record would not be appropriate, and that the Secretariat so inform the Council.

**ATTACHMENT A**  
**Trends in Domestic Mercury Air Emissions between 1990 and 1999**

The following table presents a trends analysis in domestic mercury emissions to air since 1990. The table is based on data in the 1990 National Toxics Inventory (NTI) and the 1999 National Emissions Inventory (NEI) for Hazardous Air Pollutants (HAPs). EPA compiles the NEI to provide a model-ready air emissions inventory for, among other things, estimating HAP emission reductions. The NEI for HAPs was formerly known as the National Toxics Inventory (NTI). As indicated below, a significant decline in mercury emissions to air has occurred between 1990 and 1999 from over 210 tons to about 113 tons primarily due to standards implemented under the Clean Air Act for medical waste incineration and municipal waste combustion.

Source Category***	1990 Emissions (tpy) Baseline NTI***	1999 Emissions (tpy) Version 3.0 1999 NEI for HAPs
Utility Coal-Fired Boilers*	51.1	47.9
Medical Waste Incinerators	49.7	1.6
Municipal Waste Combustors	56.7	4.9
Industrial/Commercial/ Institutional Boilers and Process Heaters (“Industrial Boilers”)*	12	12
Mercury Cell Chlor-Alkali Plants*	10	6.5
Hazardous Waste Combustors*	6.6	6.6
Gold Mining**	**	11.5
Other Categories**	23.5	21.6
<b>Total (all categories)**</b>	<b>209.6</b>	<b>112.6</b>

\* The above chart does not reflect mercury reductions to air that will be achieved through implementation of regulations that EPA has promulgated under the CAA since 1999 for coal-fired power plants, industrial boilers, mercury cell chlor-alkali plants, and hazardous waste combustors.

\*\* The total emissions for 1990 are estimated to be over 209.6 because the 1990 NTI does not include gold mining or lime manufacturing.