Period	Capacity ($kw/month)	Energy (mills/kWh)
October 1, 2002 to September 30, 2003	3.65	10.35

The referenced repayment studies are available for examination at the Samuel Elbert Building, Elberton, Georgia 30635. Proposed Rate Schedules SOCO–1, SOCO–2, SOCO–3, SOCO–4, ALA–1–I, MISS–1–I, Duke-1, Duke-2, Duke-3, Duke-4, Santee-1, Santee-2, Santee-3, Santee-4, SCE&G–1, SCE&G–2, SCE&G–3, SCE&G–4, Pump-1, and Pump-2, are also available.

Dated: March 16, 1998.

Charles A. Borchardt,

Administrator.

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ENVIRONMENTAL PROTECTION AGENCY

[FRL–5984–6; Docket No. A–97–21]

RIN 2060–ZA01

Determination of Adequacy of Section 112 Authorities and Determination of Need for Additional Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of determinations.

SUMMARY: Today's notice provides EPA's determination that the legal authorities contained in the provisions of section 112 of the 1990 Amendments to the Clean Air Act (Act) are adequate to prevent serious adverse public health effects and serious or widespread environmental effects associated with atmospheric deposition of hazardous air pollutants (HAP) to the Great Lakes, the Chesapeake Bay, Lake Champlain, and certain coastal waters (the Great Waters). Today's notice also provides EPA's determination that further emission standards or control measures under section 112(m)(6), beyond those that can otherwise be adopted under section 112, are not necessary and appropriate to prevent such effects. Note that these determinations are not a conclusion that EPA has taken full advantage of the statutory authorities under section 112, but that these authorities exist and are adequate, based on the information available now, to prevent serious adverse effects to public health and serious or widespread environmental effects associated with atmospheric deposition of HAP to the Great Waters. The two draft determinations were published on July 7, 1997, and a public comment period during which interested persons could submit written comments in response to the draft determinations ran through August 6, 1997. These determinations are being made pursuant to section 112(m)(6) of the Act, as amended in 1990.

ADDRESSES: Supporting information used in developing the draft and final determinations is contained in Docket No. A-97–21 at the Air Docket, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. This docket is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Dale Evarts, Office of Air Quality Planning and Standards (MD–15), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5535.

SUPPLEMENTARY INFORMATION:

Electronic Availability

The official record for this notice, as well as the public version, has been established for this notice under Docket No. A–97–21 (including comments and data submitted electronically as described below). A public version of this official record, including printed, paper versions of electronic comments, which do not include any information claimed as confidential business information (CBI), is available for inspection at the address in **ADDRESSES** at the beginning of this document, and electronically at the following address: http://www.epa.gov/ttn/oarpg/

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I. Background and Overview

Pursuant to the requirements of section 112(m)(6) of the Act, 42 U.S.C. 7412(m)(6), EPA is issuing its determination that the legal authorities contained in the other provisions of section 112 of the Act are adequate to

prevent serious adverse effects to public health and serious or widespread environmental effects (hereinafter referred to as ''adverse effects''), including such effects resulting from indirect exposure pathways, associated with atmospheric deposition of HAP and their atmospheric transformation products to the Great Waters. The EPA is also issuing its determination that, at this time, further emission standards or control measures under section 112(m)(6), beyond those that can otherwise be adopted under the other provisions of section 112, are not necessary and appropriate to prevent such effects, including the effects due to bioaccumulation and indirect exposure pathways. The notice discusses the bases for the Agency's two draft determinations published on July 7, 1997 (62 FR 36436), the comments received in response to the draft determinations, EPA's responses to those comments, and the bases for the determinations are discussed in today's notice.

Section 112(m)(6) of the Act requires EPA to determine whether the other provisions of section 112 provide adequate authority to prevent serious adverse effects to public health and serious or widespread environmental effects associated with atmospheric deposition of HAP to the Great Waters. If EPA finds the other provisions of section 112 to be inadequate for this purpose, section 112(m)(6) then requires the Agency to promulgate, as necessary and appropriate, further regulations in accordance with section 112 to prevent those effects.[1] While, under the Act, EPA could have unilaterally issued its determinations in the second Report to Congress required by section 112(m)(5), the Agency chose to conduct its analysis of the provisions of section 112 in a more public forum that allowed interested citizens to provide comments on EPA's preliminary views. This approach was reflected in the consent decree entered in *Sierra Club* v. *Browner,* 96–1680 (D.D.C.). The EPA issued its two draft determinations in conjunction with issuing its ''Second Report to Congress on Deposition of Air Pollutants to the Great Waters'' (EPA–453/R–97–011, June 1997), which summarized the draft determinations. Today's notice serves as a supplement to that Report.

[1] The EPA interprets this latter requirement to mandate that EPA determine, in the first instance, whether additional regulations are necessary and appropriate, rather than to absolutely require the Agency to promulgate some further regulations. See, e.g., *Environmental Defense Fund* v. *Thomas,* 870 F.2d 892, 898–900 (2nd Cir. 1989).

The first draft determination pertained to the authority within the other provisions of section 112 to take appropriate actions to address the effects enumerated in section 112(m)(6), rather than to the efficacy of any prior or future administrative actions under those provisions. In addition, the scope of the draft determination focused on the authority within section 112 to address those pollutants and sources that can be regulated under section 112. Consequently, pollutants that are not listed as HAP pursuant to section 112(b), and source categories that could not be listed pursuant to section 112(c), were not included within its scope. The EPA did note, however, that some unlisted pollutants that are pollutants of concern for the Great Waters are regulated by other sections of the Act (e.g., emissions of oxides of nitrogen (NO_X) are regulated pursuant to sections 108, 109, 202 and 407). Moreover, some source categories that were outside the scope of section 112 and the determination can be regulated under other Act provisions (e.g., mobile sources regulated under title II of the Act). While this determination only applies to the adequacy of section 112 to address HAP of concern to the Great Waters emitted from stationary sources, other authorities under the Act operate in concert with section 112 to reduce, for instance, toxic emissions from mobile sources, NO_X emissions from both mobile and stationary sources, and particulate matter (some of which may be toxic).

Section 112 establishes a statutory framework by which EPA identifies HAP by whether an air pollutant may cause or contribute to adverse effects to public health or the environment, and then develops performance standards for the control of emissions from stationary sources of HAP. The EPA can then adjust these control requirements as needed to address any residual risk that may be presented by sources even after adoption of the emission standards (section 112(f); see footnote 3 below). The types of adverse environmental effects to be prevented are defined in the Act and are broad in scope. An adverse environmental effect is defined by section 112(a)(7) as ''* * * any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.'' (42 U.S.C. 7412(a)(7)).

Authorities provided by section 112 that may be particularly relevant to the Great Waters pollutants and sources include authority to:

—Identify and list any air pollutant that may present through inhalation or other routes of exposure a threat of adverse human health effects or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise (section 112(b)).

—-Establish test methods and analytic procedures for monitoring and measuring emissions, ambient concentrations, deposition, and bioaccumulation of HAP (section 112(b)(5)).

—Identify and list any source category or source subcategory that emits HAP, including sources of seven specific HAP that are of particular concern for the Great Waters to assure at least 90 percent of emissions of each of these seven HAP are subject to national emission standards (section 112(c)).

—Promulgate performance standards for major sources and listed area sources of HAP. These standards are to reflect the maximum degree of emission reduction that is achievable, taking into consideration the cost of achieving such reduction, non-air quality health and environmental impacts, and energy requirements (i.e., ''maximum achievable control technology,'' or MACT). In addition, these standards are to apply pollution prevention measures, processes, methods systems or techniques which reduce the volume of or eliminate emissions through process changes, substitution of materials, enclosure of systems or processes, and other measures (section 112(d)).

—Establish lesser quantity emission rates for determining what is a major source of a HAP, based on several factors including potency of the HAP, persistence in the environment, the potential to bioaccumulate, other characteristics of the HAP, or other relevant factors (section 112(a)).

—Require additional controls as necessary to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect. This authority applies not only to sources regulated under section 112(d) performance based controls, but also to certain other source categories regulated under sections 111 and 129 of the Act (section 112(f)).

Based on available information and EPA's analysis, and guided by the Agency's interpretation of the statutory authorities of section 112, EPA is determining that the provisions of

section 112 are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects associated with atmospheric deposition of HAP emissions to the Great Waters. Consequently, EPA is determining that, at this time, no further emission standards or control measures under section 112(m)(6), beyond those that can otherwise be adopted under section 112, are necessary and appropriate to prevent those effects. In addition, due to the state of current scientific information concerning factors such as the relative contribution of air emissions to adverse effects in the Great Waters, as discussed in the first and second Reports to Congress, EPA could not conclude confidently that such supplementary regulatory action under section 112(m)(6) would be necessary and appropriate.

This does not mean, however, that actions under the other provisions of section 112 or other authorities that reduce any impacts from deposition of air pollution are not warranted, or that EPA is concluding that air deposition of HAP does not currently cause or contribute to adverse effects to public health or the environment. In fact, EPA has taken and is continuing to take several actions that the Agency expects will reduce these impacts (e.g., EPA's Nitrogen Oxides Emission Reduction Program final rule, 61 FR 67112 (Dec. 19, 1996). In recent years, considerable progress has been made in quantifying emissions inventories, monitoring concentrations in air and precipitation, and modeling total atmospheric deposition to a water body. Studies are improving the ability to relate deposition to source categories, and examinations are under way for viewing the total picture relating HAP to single water bodies. Therefore, EPA reserves its right to reconsider these determinations if future events or additional information indicate that they are incorrect and to promulgate any necessary and appropriate regulations under section 112(m)(6). Such events or information could include, for example, a judicial ruling that overrules EPA's interpretation of how a particular provision of section 112 can be employed in the effort to prevent adverse effects from HAP deposition, or the Agency's discovery through implementation of a section 112 provision that the authority EPA previously believed was available to prevent such effects could not be adequately used for this purpose.

The EPA is committed to continuing its analyses, research and assessments of all aspects of atmospheric transport, deposition, fate and effects of HAP emitted by section 112 sources, and to faithfully implementing the provisions of section 112 and other authorities in order to minimize unreasonable threats to humans and to the environment as a result of exposure to air pollutants, whether exposure results directly from emissions into the air, through introduction to watersheds or water bodies, or through other pathways. The EPA will continue to work cooperatively with the National Oceanic Atmospheric Administration (NOAA) and the scientific community to refine methods for measuring and estimating atmospheric transport and deposition of HAP in order to more reliably characterize and quantify the significance of atmospheric deposition to environmental quality.

II. Statutory Framework of the Clean Air Act Great Waters Program

In the 1990 Amendments to the Clean Air Act (Pub. L. 101–549), Congress added a new program targeted at assessing and controlling atmospheric deposition of HAP to the Great Waters. Section 112(m) of the Act, as amended in 1990, 42 U.S.C. 7401 *et seq.*, established the Great Waters program under which EPA has ongoing responsibilities to identify and assess the extent of atmospheric deposition of HAP to the Great Waters. As part of this program, EPA is to monitor for atmospheric deposition of HAP in the Great Waters, investigate the sources of HAP deposition, research the relative contribution of atmospheric pollutants to total loadings in the Great Waters, evaluate adverse effects to public health or the environment caused by HAP deposition, assess the contribution of HAP deposition to violations of water quality or drinking water standards, and sample for HAP in biota, fish, and wildlife of the Great Waters (42 U.S.C. 7412(m)(1)).

Section 112(m) then requires EPA to establish a monitoring network for the Great Waters. Under section 112(m)(2), the Agency is to monitor atmospheric deposition of HAP (and other pollutants in the Administrator's discretion) to the Great Lakes, establishing at least one facility in each of the Great Lakes capable of monitoring deposition of HAP in both dry and wet conditions. The EPA is to use the data provided by the network to identify and track movement of HAP through the Great Lakes, to determine the portion of water pollution loadings attributable to HAP deposition, and to support remedial plans as required by the Great Lakes Water Quality Agreement. The EPA is to assure that such data are compatible with databases sponsored by the International Joint Commission, Canada, and the several States of the Great Lakes region (42 U.S.C. 7412(m)(2)). Section 112(m)(3) then directs EPA to establish monitoring stations to assess deposition of HAP (and other pollutants in EPA's discretion) within the Chesapeake Bay and Lake Champlain watersheds, determine the role of air deposition in the pollutant loadings of these two water bodies, investigate the sources of air pollutants deposited in their watersheds, and conduct evaluative and sampling functions as necessary to characterize health and environmental effects of such loadings (42 U.S.C. 7412(m)(3)). Section 112(m)(4) requires EPA to design and deploy deposition monitoring networks for coastal waters and their watersheds and make any information collected through them publicly available (42 U.S.C. 7412(m)(4)).

In addition, pursuant to section 112(m)(5), EPA is to provide periodic, updated Reports to Congress describing the results of any monitoring, studies, and investigations conducted under the Great Waters program, addressing the same issues mentioned above and describing any revisions to the requirements, standards, and limitations under the Act or other Federal laws that are necessary to protect human health and the environment from atmospheric deposition of HAP (42 U.S.C. 7412(m)(5)). The Agency's implementation of the Great Waters program up through the summer of 1997 is discussed in the first two Reports to Congress issued under section 112(m)(5), respectively entitled, ''Deposition of Air Pollutants to the Great Waters: First Report to Congress,'' EPA–453/R–93–055 (May 1994); and ''Deposition of Air Pollutants to the Great Waters: Second Report to Congress,'' EPA–453/R–97–011 (June 1997). Copies of these reports can be obtained, as supplies permit, from the Library Services Offices (MD–35), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27771, or, for a nominal fee, from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, phone: 1–800–553–NTIS or 703–487–4650.

Finally, section 112(m)(6) requires EPA to determine, as part of the Report to Congress, whether the other provisions of section 112 are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects, including effects resulting from indirect exposure pathways, associated with deposition of HAP (and their atmospheric

transformation products) to the Great Waters. In making this determination, EPA is to take into consideration the tendency of certain HAP to bioaccumulate. If EPA determines that the other provisions of section 112 are not adequate for this purpose, section 112(m)(6) then provides that EPA must promulgate, in accordance with section 112, such additional emission standards or control measures as EPA determines may be necessary and appropriate to prevent those effects (42 U.S.C. 7412(m)(6)).

The EPA issued its first Report to Congress under the Great Waters program in May 1994. When the Agency had not issued the second report by 2 years after that date, three environmental groups, the Sierra Club, the Chesapeake Bay Foundation, and the National Wildlife Federation, filed suit in U.S. District Court for the District of Columbia to compel EPA to take three distinct actions: (1) Issue the second Report to Congress; (2) determine whether the other provisions of section 112 are adequate to prevent the effects described in section 112(m)(6) and (3) promulgate further emissions standards or control measures under section 112(m)(6) (see Complaint for Declaratory and Injunctive Relief, *Sierra Club, et. al.* v. *Browner,* Civ. No. 96–1680 (D.D.C.)). In May 1997, the court entered a consent decree containing a schedule for several actions as agreed upon by the parties. First, under the decree, the Agency was required to issue the second Report to Congress and proposed determinations regarding the adequacy of section 112 and the need for further regulations as described in section 112(m)(6) by June 30, 1997. Second, final determinations were due by March 15, 1998. Third, if EPA determines, pursuant to section 112(m)(6), that further emission standards or control measures are necessary and appropriate, EPA is to issue proposed regulations by March 15, 2000, with final regulations due by November 15, 2000. The Agency met the first set of the consent decree's requirements when it issued the second report and the draft determinations. Today's notice fulfills the second set of requirements under the decree.

III. EPA's Draft Determinations

In the notice publishing the Agency's draft determinations, EPA set out its statutory analysis of the scope of the section 112(m)(6) analytical mandate, the authority under the other provisions of section 112 relative to that mandate, and its draft conclusions regarding the adequacy of section 112 and the need for further regulations beyond those that can otherwise be adopted under section 112 (62 FR 36438–46, July 7, 1997). The Agency's analysis as presented in the draft determinations notice is summarized below. The public comments to that analysis are summarized later, as are EPA's responses to the points raised by commenters and EPA's conclusions.

A. Scope of Analysis

Section 112(m)(6) charges EPA to assess the adequacy of ''the other provisions of this section (112)'' to prevent the specified effects. If EPA finds those other provisions could not prevent those effects, section 112(m)(6) directs the Agency to adopt additional rules ''in accordance with this section (112)'' not otherwise specifically mandated or authorized by the other provisions, as needed to meet the section 112(m)(6) protective mandate. Any such additional regulations, having to be ''in accordance with this section (112),'' would, by the terms of section 112(m)(6), have to be limited to rules that apply to the air pollutants and source types that are within the Agency's scope of authority to address under section 112 (i.e., stationary sources of HAP).

Section 112(m)(6) does not, in contrast, direct EPA to evaluate the individual effectiveness of the particular regulatory actions that have been taken or that are being taken under those other statutory provisions. The EPA interprets the statutory language as calling for an analysis of the regulatory authority EPA has for proceeding under the provisions of section 112 to prevent the enumerated health and environmental effects (62 FR 36436, 36438–36439, July 7, 1997). In other words, for purposes of conducting the required statutory analysis, EPA must presume that the provisions would be implemented in a manner which fully meets the substantive objectives of the relevant provisions of section 112, rather than speculate about what actual degree of emission control might ultimately result from any specific regulation that has been adopted (or will be adopted), and what remaining risks will be presented after application of those regulations.[2] This interpretation is supported by the dates by which Congress directed EPA to make this determination and promulgate any further necessary and appropriate regulations under section 112(m)(6), compared to the deadlines section 112 sets forth for full implementation of the HAP program. The first Report to Congress was due on November 15, 1993. Further regulations based on the Agency's determinations under section 112(m)(6) were then due on November 15, 1995. In contrast, many of the regulations EPA is required by the 1990 Amendments to section 112 to promulgate are not due until much later, and would not be expected to be completed by the date specified in section 112(m)(6). Some regulations, for example the residual risk standards and 10-year MACT standards, would have been in such early stages of development that EPA could not have begun to assess their effectiveness. Even established regulations would not yet, at that time, have demonstrated success or failure at preventing adverse effects. Thus, Congress could not have expected EPA to have gathered sufficient information, at the time the adequacy determination and decision regarding the need for further regulations were due, to judge the scientific or technical ''adequacy'' of recently adopted or future regulatory actions. Rather, EPA interprets section 112(m)(6) as charging the Agency to identify and plug any gaps in authority found based on the conclusion that those other provisions of section 112, when eventually implemented, could not possibly prevent the enumerated effects from HAP deposition from stationary sources.

The EPA also considered the extent to which the adequacy determination must encompass all sources of HAP, rather than just domestic stationary sources that are within the scope of section 112. Atmospheric deposition of some HAP partially results from mobile sources, as well as transport of emissions from foreign sources. Moreover, some HAP are continually being recycled in the environment, long after they have been emitted or discharged by the original source. The EPA believes that section 112(m)(6) does not direct EPA to consider these sources in making its determination. If the other provisions of section 112 are found inadequate, EPA is to establish further regulations under section 112 applicable to sources that it could regulate under section 112. Since non-section 112 sources, such as mobile sources and foreign sources, are outside the regulatory scope of EPA's remedial authority under section 112(m)(6), EPA does not believe that Congress asked EPA to evaluate the adequacy of section 112 authorities to apply to those sources. On the contrary, the most reasonable interpretation is that Congress asked EPA to assess the adequacy of the complicated provisions added by the 1990 Amendments to section 112 applicable to sources that

[2] This latter task is required to be taken in assessing residual risk under section 112(f).

are within EPA's jurisdiction under section 112.

B. Definitions of Major Source and Adverse Environmental Effect

The EPA's first step in the statutory analysis in the draft determination was to assess the relevant definitional provisions of section 112 (62 FR 36440–36441, July 7, 1997). Section 112(a)(1) defines the term ''major source'' as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAP (42 U.S.C. 7412(a)(1)). That definition functions in part to establish the types of sources that will be subjected to the most stringent performance-based controls under section 112(d). The Agency explained that the provision also explicitly allows EPA to set lower emissions thresholds for determining whether a source is major, which would result in more source types being subject to the more stringent performance-based controls, based on consideration of factors that are especially relevant for the Great Waters, including potency and persistence of the particular HAP being emitted by the source category and the potential of the HAP to bioaccumulate. This means that the authority in section 112(a)(1) can be used in conjunction with other provisions of section 112 (particularly the provisions of section 112(d) and 112(f)) to impose controls that could help prevent the effects enumerated in section 112(m)(6). For example, the factors set forth in section 112(a)(1) could be relevant to EPA's decisions regarding the presence of residual risks under section 112(f).[3]

The EPA then analyzed the definition of the term ''adverse environmental effect'' contained in section 112(a)(7).[4] The EPA recognized that the language in the section 112(a)(1) definition of ''adverse environmental effect'' does not literally match the language describing the environmental effects in section 112(m)(6). Where the definition covers ''significant and widespread adverse effect(s),'' section 112(m)(6) addresses ''serious or widespread environmental effects.'' However, EPA stated that it does not believe these differences impose meaningfully different standards. The Agency argued that the standard imposed under section 112(a)(7) is substantially the same as that in section 112(m)(6), for purposes of the adequacy determination. First, the legislative history of section 112(m) suggests that Congress understood the language in section 112(m)(6) to have the same meaning as that used elsewhere in section 112 to describe ''adverse'' environmental effects. Second, it seemed most reasonable to interpret the ambiguous literal differences in the two sections consistently in order to avoid the result of concluding that Congress had charged EPA under section 112(m)(6) to prevent environmental effects that are not actually ''adverse.'' Third, other language in section 112(m) itself indicates that the language should be interpreted consistently in directing EPA to establish the Great Waters program in order to evaluate ''adverse effects to public health or the environment caused by (HAP) deposition including effects resulting from indirect exposure pathways'' (42 U.S.C. 7412(m)(1)(D)). Finally, EPA stated that the use of the word ''widespread'' as a necessary prerequisite in section 112(a)(7), while it is just one of two possible prerequisites under a literal reading of section 112(m)(6), does not mean that in all cases ''adverse environmental effects'' would have to occur in multiple geographic areas, or that impacts experienced only in, for example, the Great Lakes, the Chesapeake Bay, another Great Waters water body, or a significant portion of such a water body would have to be excluded. This view was partly based on how the Agency has interpreted the term ''widespread'' in other contexts to apply to economic impacts affecting a single community, and on the fact that section 112(a)(7) itself provides as an example of ''adverse environmental effects'' impacts on populations of endangered species, which are often likely to occur in only limited geographic areas. Ultimately, EPA stated that it believes that the ''widespread'' criterion would not exclude impacts that might occur in one of the Great Lakes, the Chesapeake Bay, another Great Waters water body, or a significant portion of such a water body. For example, EPA believes that it could, in appropriate cases, employ its section 112 authorities to address adverse environmental effects in concert with its efforts to establish total maximum daily loads (TMDL) under the Clean Water Act. As a result, EPA stated its belief that the other provisions of section 112 that can be used to prevent ''adverse environmental effects'' are especially useful for addressing Great Waters program concerns.

C. Listing of Pollutants and Sources

The EPA then discussed the provisions of section 112(b) and 112(c) governing the listing of air pollutants as HAP and the source categories to be regulated under section 112 (62 FR 36441–42, July 7, 1997). In addition to the list of HAP established by Congress in section 112(b)(1),[5] EPA is authorized under Act section 112(b)(2) to revise the list, by rule, to add new pollutants which may present, through inhalation or other routes of exposure, a threat of adverse human health effects or adverse environmental effects whether, through ambient concentrations, bioaccumulation, deposition, or otherwise (42 U.S.C. 7412(b)(2)). In addition, under section 112(b)(3), EPA is required to add substances to the list upon a showing by outside petitioners or on the Agency's own determination that ''* * * the substance is an air pollutant and that emissions, ambient concentrations, bioaccumulation or deposition of the substance are known to cause or may reasonably be anticipated to cause adverse effects to public health or adverse environmental effects.'' (42 U.S.C. 7412(b)(3)). Moreover, section 112(b)(5) specifically allows EPA to establish test measures and other analytic procedures for monitoring and measuring emissions, ambient concentrations, deposition, and bioaccumulation of listed HAP (42 U.S.C. 7412(b)(5)). The Agency stated its belief that these provisions of section 112 provide adequate authority to identify and formally list any HAP which has the potential for causing the effects enumerated in section 112(m)(6) due to atmospheric deposition.

The EPA then described its authority to list categories and subcategories of major sources and area sources of HAP under section 112(c)(1), the section 112(c)(2) requirement that EPA establish emission standards under section 112(d)

[3] The Agency is directed to consider several factors in establishing standards to prevent adverse environmental effects. In relevant part section 112(f)(2)(A) provides: ''Emission standards promulgated under this subsection shall provide an ample margin of safety to protect public health in accordance with this section (as in effect before the date of enactment of the Clean Air Act Amendments of 1990), unless the Administrator determines that a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.''

[4] 42 U.S.C. 7412(a)(7) provides: The term ''adverse environmental effect'' means any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

[5] The list now contains 188 HAP, as a result of EPA's final decision to remove the compound caprolactum from the section 112(b) list (61 FR 30816 (June 18, 1996), codified at 40 CFR 63.60).

for listed source categories, and the provisions of this subsection that provide particular authority relevant to the Great Waters program. The Agency noted that section 112(c)(6) requires that EPA identify and list for regulation sources to assure that at least 90 percent of the aggregate emissions of each of seven pollutants of concern to the Great Waters are subject to section 112(d) standards (42 U.S.C. 7412(c)(6)), and that section 112(c)(5) provides broad authority to list additional categories and subcategories of area sources of HAP any time EPA finds they present a threat of adverse effects to human health or the environment (42 U.S.C. 7412(c)(5)). Finally, EPA discussed the requirements under section 112(c)(3) that the Agency first list each category or subcategory of area sources which EPA finds present a threat of adverse effects to human health or the environment warranting regulation under section 112, and second, list sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 HAP that present the greatest threat to public health in the largest number of urban areas are subject to regulation under section 112 (42 U.S.C. 7412(c)(3)). The EPA recognized that under the provisions of section 112(c), it may list only stationary sources for regulation under section 112, and that the provision does not reach mobile sources such as motor vehicles, aircraft, nonroad engines, or locomotives. The EPA explained, however, that other Act authorities exist that provide for regulation of those other types of sources, and that under the section 112(c) provisions, there would not be any basis by which a category of stationary sources of HAP emissions of concern for the Great Waters could evade listing for regulation under section 112.

D. Regulations to Control Emissions of HAP

The EPA then analyzed the provisions of section 112 addressing control of HAP emissions from listed source categories (62 FR 36442–44, July 7, 1997). There are two broad approaches available under section 112: Performance-based MACT and generally achievable control technology (GACT) standards under section 112(d), and health-based and environmental quality-based residual risk standards under section 112(f).

1. MACT and GACT Standards

After listing pollutants and source categories, EPA is required by section 112(d)(2) to promulgate emission standards requiring the maximum degree of HAP emissions reduction that is achievable, taking into consideration costs and other factors (42 U.S.C. 7412(d)(2)). These so-called ''MACT'' standards are required by section 112(d)(3) to meet certain stringency criteria based on the best controlled sources in the source category, depending on whether sources are new or existing sources (42 U.S.C. 7412(d)(3)). The EPA noted that the Act allows the Agency to focus these MACT standards on major sources, and that area sources may be subject to less stringent GACT standards under section 112(d)(5). However, EPA retains the discretion both to subject area sources to MACT standards (e.g., 60 FR 4948, 4953, January 25, 1995) where it is appropriate to do so, and to establish lesser quantity emissions rates (LQER) for determining whether a source is major based on a HAP's potency, persistence, potential to bioaccumulate, or other factors. Finally, in implementing the section 112(d) MACT and GACT programs, section 112(e) requires that all emission standards for listed categories be promulgated by November 15, 2000, and that EPA consider known or anticipated effects of HAP on public health and the environment when determining priorities for promulgating section 112(d) standards (42 U.S.C. 7412(e)).

2. Residual Risk Standards

The EPA further explained that while the vast majority of reductions in HAP emissions should be obtained through section 112(d) programs, MACT and GACT standards are not required to achieve health-based or environmental quality-based results. However, the provisions of section 112 do provide another mechanism by which to protect public health and prevent adverse environmental effects, if necessary, after the application of MACT and GACT: the section 112(f) residual risk program (62 FR 36443–44, July 7, 1997). Under this authority, EPA is to adopt more stringent standards within 8 years after adoption of MACT (and has discretion to do so after adoption of GACT), if necessary to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect (42 U.S.C. 7412(f)(2)). The Agency stated that it believes the residual risk provisions of section 112, which also apply to sources regulated under the solid waste incineration provisions of sections 111 and 129, allow EPA to take necessary action to prevent any adverse environmental effect, including any of the enumerated effects in section 112(m)(6). In setting a section 112(f) standard to provide an ample margin of safety to protect public health, EPA would use a two-step process (54 FR 38083, September 14, 1989). First, the Agency would determine a ''safe'' or ''acceptable'' risk level, based solely on health factors. Then, EPA would set the standard at a level—which may be equal to or more stringent, but not less stringent than the ''safe'' or ''acceptable'' level—that protects the public health with an ample margin of safety. In determining the ample margin of safety, the Agency would again consider all of the health risk and other health information considered in the first step. Beyond that information, additional factors relating to the appropriate level of control would also be considered, including costs and economic impacts of controls, technological feasibility uncertainties, and any other relevant factors. Considering all of these factors, the Agency would establish the standard at a level that provides an ample margin of safety to protect public health. Finally, in setting a more stringent section 112(f)(2) standard to prevent an adverse environmental effect, EPA would consider costs, energy, safety, and other relevant factors. The EPA could even tailor residual risk standards so that the regulations address effects that are presented by a limited number of sources over a limited geographical or situational range. For example, EPA believes it could use its authority under the residual risk provisions to address adverse environmental effects to Great Waters water bodies, or other water bodies, associated with deposition of HAP emitted by particular sources. This authority, especially, was the key to the Agency's draft determination that the other provisions of section 112 are adequate to prevent the effects set forth in section 112(m)(6).

E. Other Relevant Provisions of Section 112

The EPA also discussed the urban area source program required by the provisions of section 112(k) (which is conducted in concert with the previously discussed section 112(c) source category listing program), the section 112(n) provisions requiring EPA to study and report on mercury and other HAP emissions from electric utilities and other units, and the solid waste incineration units program under sections 111 and 129 of the Act (which is subject to the section 112(f) residual risk program) (62 FR 36444–45, July 7, 1997). These provisions, EPA stated, provide further authority to prevent the effects enumerated in section 112(m)(6).

For example, the urban area source program could result in significant reduction of polycyclic organic matter (POM), one of the pollutants of concern for the Great Waters, if POM is identified as one of the 30 most hazardous air pollutants emitted by area sources. Moreover, the application of the section 112(f) residual risk program to the solid waste incineration unit program (which by itself will result in significant reductions in emissions of Great Waters pollutants of concern, particularly lead, cadmium, mercury, dioxins and dibenzofurans) allows EPA to target particular sources whose emissions contribute to deposition-associated adverse effects.

F. Draft Conclusions

The EPA, therefore, stated its draft determinations that: (1) the other provisions of section 112 are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects associated with the deposition of HAP which are emitted by stationary sources for which EPA has authority and jurisdiction to regulate; and, (2) as a result, no further emission standards or control measures under section 112(m)(6), beyond those that can otherwise be adopted under the other provisions of section 112, are necessary and appropriate at this time to prevent such effects. The EPA further stated that even if the other provisions of section 112 were found to be inadequate under section 112(m)(6), the Agency did not believe it could conclude confidently that further emission standards or control measures beyond those otherwise authorized by section 112 are now necessary and appropriate, due to a continuing lack of adequate scientific information regarding the relative contribution of air emissions to adverse effects in the Great Waters.

IV. Public Comments Received and EPA Responses

The EPA received over 450 written public comments on the draft determinations from environmental advocacy organizations, industry trade groups or individual companies, State governmental representatives, members of Congress, and private citizens. The arguments contained in these comments are organized below according to their themes.

A. Current Air Pollution Controls Are Inadequate, and EPA Should Institute New Controls to Control HAP Emissions that Harm the Great Waters

1. Summary of the Comments

A majority of the comments from private citizens and environmental advocacy groups asserted that current air pollution controls (i.e., current Federal and State regulatory programs) of HAP emissions are not adequate to prevent the effects specified in section 112(m)(6). Many of these comments seem to interpret EPA's notice as stating that no further regulatory action ''at all'' under section 112 is needed, beyond that which EPA has already taken. The comments argue that adverse public health and environmental effects in the Great Waters have occurred and continue to occur as a result of atmospheric deposition of HAP, and that, therefore, existing controls cannot be adequate to prevent them. Many of the comments request EPA to take specific actions such as the following: (1) Reduce mercury emissions from coal-burning power plants; (2) cut back on dioxin emissions from incinerators; (3) reduce HAP emissions from steel mills; (4) eliminate non-industrial sources of HAP such as automobiles and polluted sediments; (5) direct hospitals and municipalities to increase source reduction and recycling; (6) add more chemicals (such as atrazine) to the list of Great Waters pollutants of concern; (7) curtail air pollution from lead smelters, chemical plants, and petroleum refineries; (8) seek greater authority to safeguard the environment from HAP emissions released in other countries; (9) take into account background levels of HAP that have been already released; (10) shield the public from pesticides that evaporate from fields; (11) pursue additional scientific information on atmospheric transport of persistent HAP and their contribution to loadings in the Great Waters and to known and perceived impacts; (12) support legislation that makes it economically beneficial for industries to reduce emissions; (13) fund campaigns to inform the public as to which companies are the worst HAP polluters and which are looking for alternatives; (14) regulate the use of uncovered lagoons on hog farms that contribute nitrogen to the atmosphere; and (15) control HAP emissions from off-road vehicles such as snowmobiles and jet skis and all terrain vehicles (ATV).

2. EPA's Response

The EPA wishes to clarify the scope and purpose of the draft determinations. Many of the commenters interpreted the draft determinations to amount to a decision on the Agency's part to maintain the ''status quo'' regarding control of HAP emissions that are deposited into the Great Waters and that no further action, under any legal authority, is needed in order to prevent adverse impacts associated with HAP deposition. This was not what EPA intended. Rather, EPA's draft determinations reflect: (1) The Agency's assessment of the strength of its existing statutory authority under Act section 112 enabling EPA to take action to prevent those effects; and, (2) whether regulatory action under its remedial authority in section 112(m)(6), in addition to that which EPA can otherwise take under section 112, is necessary and appropriate to prevent those effects. Since EPA believes the legal authority provided by the other provisions of section 112 is strong enough to allow the Agency to prevent those effects, it also believes that specific remedial regulations beyond those that can be issued under the other provisions of section 112 are not needed at this time. This does not mean that EPA believes that the status quo should be maintained and that continued regulatory action under section 112 and other legal authorities should not be taken.

While not determinative of the issue of whether the other provisions of section 112 are legally ''adequate'' under section 112(m)(6), in response to the many commenters' requests for specific action, EPA wishes to point out that since the passage of the 1990 Amendments to the Clean Air Act, the Agency has taken and continues to take many actions under section 112 that are designed and intended to achieve many of the results the commenters' requested. For example, EPA has issued several regulations that are currently being implemented and phased in that will substantially reduce HAP emissions and deposition to water bodies. The Synthetic Organic Chemical Manufacturing Industry rule (HON), is near full implementation and reduces HAP emitted by this industry by approximately 90 per cent (510,000 tons) from 1994 levels.[6] The Municipal Waste Combustors rule, which

[6] 59 FR 19402(April 22, 1994), 59 FR 29196(June 6, 1994), 59 FR 48175(September 20, 1994), 59 FR 53359(October 24, 1994), 59 FR 54131(October 28, 1994), 59 FR 54154(October 28, 1994), 60 FR 5320(January 27, 1995), 60 FR 18020(April 10, 1995), 60 FR 18071(April 10, 1995), 60 FR 63624(December 12, 1995), 61 FR 31435(June 20, 1996), 61 FR 7716(February 29, 1996), 61 FR 64572(December 5, 1996), 62 FR 62722(January 17, 1997).

addresses sources that account for over 60 per cent of the total estimated 1990 national dioxin emissions and almost 19 per cent of the estimated 1990 national anthropogenic mercury emissions, is expected to reduce dioxin emissions by 99 percent and mercury emissions by 90 percent from 1990 levels for these sources when fully implemented by December 2000.[7] Similarly, the final standards for Hospital/Medical Infectious Waste Incinerators (62 FR 48348, September 15, 1997), when implemented by September 2002, are expected to reduce dioxin and mercury by 94 percent and 95 percent, respectively, from subject sources. These sources account for approximately 10 per cent of the estimated 1990 national mercury emissions to the air and 11 per cent of the estimated 1990 national dioxin emissions. The Primary Aluminum Industry MACT rule (62 FR 52384, October 7, 1997) is expected to reduce POM emitted by this industry by 50 percent, or 2000 tons per year.

Section 112 also requires EPA to conduct a study to evaluate the public health impacts of emissions of HAP, including mercury and dioxins, from power plants (section 112(n)(1)(A)). The report, released in early 1998, provides an assessment of the health effects of HAP emitted from power plants. Under section 112(f)(1), EPA will also issue, in 1998, a report on the methods and significance of risks to public health and the environment which may remain after application of standards to sources subject to regulation under section 112(d). In addition, EPA expects to finalize, in 1998, emission standards for hazardous waste combustors, which includes incinerators and cement kilns, and accounts for over 4 per cent of the estimated total national mercury emissions (1990 baseline).

The EPA, through international organizations such as the International Joint Commission and the United Nations Economic Commission for Europe (UN/ECE), has taken a lead role in international strategies to reduce HAP of concern to the Great Waters. For example, EPA is participating in the current negotiations on international protocols for persistent organic pollutants (which include chlordane, DDT, dioxins and furans, dieldrin, hexachlorobenzene, hexachlorocyclohexane (primarily lindane), and polychlorinated biphenyls (PCB)) and for heavy metals (i.e., mercury, lead, and cadmium) under the auspices of the Long Range Transboundary Air Pollution working groups of the UN/ECE. In addition, on April 7, 1997, the United States and Canada signed the Great Lakes Binational Toxics Strategy (Binational Strategy), initiating a coordinated effort to reduce toxic substances affecting the Great Lakes Basin. This strategy targets several of the Great Waters pollutants (e.g., dieldrin, chlordane, DDT, hexachlorobenzene, alkyl-lead, PCBs, dioxins and furans, toxaphene, and mercury and mercury compounds) and includes the goal of a 50 per cent reduction in the deliberate use of mercury and a 50 per cent reduction in the release of mercury caused by human activity by 2006.

Building on the binational strategy, EPA is developing a multimedia, agency wide strategy for addressing priority persistent, bioaccumulative, and toxic (PBT) chemicals. Through this effort, EPA is developing action plans for priority substances, namely ''Level 1'' substances found in the Binational Strategy, emphasizing pollution prevention and enlisting the participation and involvement of all interested stakeholders to effect reductions. This effort takes an innovative, pollution prevention approach toward reducing persistent, toxic substances. This effort envisages working with all the Regions to reach all interested stakeholders (e.g., industry, environmental groups, States, Tribes and the public) to build partnerships and to work on voluntary reduction projects. Although pollution prevention and voluntary approaches are the preferred method of targeting substances, the Agency will use its full complement of regulatory and non-regulatory tools to achieve reductions.

Furthermore, EPA is taking advantage of opportunities to reduce multimedia contamination, such as through the pulp and paper ''cluster'' of rules developed jointly by EPA's Air and Water Offices.[8] These rules are expected to result in a 74 per cent reduction from a 1995 baseline in dioxin releases from these sources to water when fully implemented in 3 to 6 years.

While nitrogen compounds are not listed as HAP, under the discretionary authority provided to the Administrator under section 112(m), these compounds have been identified as pollutants of concern in both Great Waters Reports to Congress. The EPA has taken or is currently engaged in a number of other Act activities which will reduce deposition of nitrogen pollution to Great Waters. For instance, EPA recently issued a proposed rule that would significantly reduce regional transport of NO_X in the Eastern States, which if adopted and implemented would reduce nitrogen deposition associated with NO_X emissions during the summer season (May–September), and subsequent impacts on the Chesapeake Bay and other coastal estuaries (62 FR 60318, November 7, 1997). In addition, title IV of the Act reduces nitrogen deposition by establishing a 2 million ton reduction target in NO_X emissions nationwide, in combination with other provisions of the Act (42 U.S.C. 7651(b); 61 FR 67112, 67116 (December 19, 1996)). A recent ruling was issued upholding EPA's emission limits and January 1, 2000 compliance date for coal-fired electric utility boilers (*Appalachian Power Co.* v. *EPA*, No. 96–1497 (D.C. Cir., February 13, 1998)). This ruling supports using multiple public health and environmental benefits as justification for regulatory actions under the Act. Also, implementation of EPA's recently issued revised national ambient air quality standards (NAAQS) for ozone and particulate matter will reduce nitrogen deposition (in the form of NO_X) to the Great Waters. One EPA estimate of the impact of the Act activities projects up to a 30 per cent reduction of annual nitrogen deposition to the Chesapeake Bay (U.S. EPA, (1997), Regulatory Impact Analysis for the Particulate Matter and Ozone National Ambient Air Quality Standards and Proposed Regional Haze Rule; Office of Air Quality Planning and Standards; Washington, DC; docket A–95–58, item #IV–A–13).

Furthermore, the recently issued ''Clean Water Action Plan,'' is an aggressive plan to, among other things, reduce toxic contaminants in our water and fish (document #EPA–840-R–98–001 (Feb.14, 1998)). The plan identifies several key actions of EPA and other Federal agencies that address the Great Waters pollutants:

—The EPA will evaluate the linkage of air emissions to water quality impacts to help determine appropriate reduction actions in the context of the ''Total Maximum Daily Load'' program which directs States to identify all sources of pollutants to an impaired water body and to develop a plan to remedy the impairment.

—The EPA and NOAA will conduct a national survey of mercury and other contaminant levels in fish and

[7] 60 FR 65387(December 19, 1995), 55 FR 5488(February 11, 1991), 60 FR 65382(December 19, 1995), 61 FR 18260(April 25, 1996), 61 FR 18260(April 25, 1996), 62 FR 45116(August 25, 1997), 62 FR 45124(August 25, 1997).

[8] See 61 FR 36835, July 15, 1996, for the proposed water rule and 61 FR 9383, March 8, 1996 for the proposed air rule. Expected promulgation for ''cluster'' is March 1998.

shellfish throughout the country during the period 1998–2000. This effort will be coordinated with State and tribal efforts to maximize geographic coverage.

—The EPA is considering changing the reporting requirements for mercury and other Great Waters pollution under the Toxic Release Inventory which could result in additional reporting of releases of the Great Waters pollutants.

—The EPA will work with NOAA and other Federal agencies, States, Tribes, and other interested parties to adopt, by December 1999, nationally consistent processes for monitoring water quality and fish tissue, and review EPA guidelines for decision-making on issuance of fish consumption advisories. The EPA will support State actions, and, after consultation with the State, will issue fish consumption advisories if a State fails to do so.

—The EPA will release the Contaminated Sediment Strategy that will coordinate its programs to address the following goals: (1) Preventing the volume of contaminated sediment from increasing; (2) reducing the volume of existing contaminated sediment; (3) ensuring that sediment dredging and disposal are managed in an environmentally sound manner consistent with the needs of waterborne commerce; and (4) developing scientifically sound sediment management tools for use in pollution prevention, source control, remediation, and dredged material management.

—In 1998, EPA will initiate place-based contaminated sediment recovery demonstration projects in five watersheds selected from those identified in EPA's National Inventory of Sediment Quality as being of the greatest concern. Remediation efforts will be coordinated with Federal natural resource trustees.

—With regard to mercury, the Clean Water Action Plan states that: ''A balanced strategy which integrates end-of-pipe control technologies with material substitution and separation, design-for-environment, and fundamental process change approaches is needed.'' The plan calls for the following actions with respect to mercury, in addition to those noted above:

—The EPA will publish new analytical methods for mercury, expand compliance and enforcement activities for direct and indirect dischargers of mercury into surface waters, expand outreach to publicly owned treatment works about preventing mercury pollution in sewage discharges, and revise water quality criteria development plans, as appropriate.

—The EPA will seek reductions in uses of mercury. These use reduction measures will reduce the levels of mercury in waste streams, as well as the danger of accidental releases. Generally, EPA will look to voluntary rather than regulatory approaches to reduce mercury use.

The EPA stresses that its continued development and implementation of the MACT program and other programs under section 112 will significantly reduce HAP emissions, and that today's determinations should in no way be viewed as EPA's conclusion that no further work under section 112, or elsewhere under the Act, needs to be done. As EPA implements section 112 programs and other programs which address Great Waters pollutants of concern, it will take under advisement the many useful suggestions provided by the commenters.

B. Timing of Determinations under Section 112(m)(6)

1. Summary of the Comments

A State regulatory agency and an environmental group submitted separate comments questioning the appropriateness of the timing of the draft determinations, and requesting that final determinations be deferred until after further implementation of the other provisions of section 112. The commenters argued that it is not possible for EPA to have made a proper determination of its regulatory success at this point, since development of the MACT program will occur up through the year 2000. The commenters feared that making a determination solely regarding statutory authorities may preclude EPA from ever promulgating remedial standards in the future.

2. EPA's Response

The EPA continues to believe that the more reasonable interpretation of both the language of section 112(m)(6) and the subsection's deadlines for action is as a mandate that EPA evaluate the underlying statutory authority provided by the other provisions of section 112 to prevent the enumerated effects, rather than an assessment of the actual success of implementing measures to prevent them. While the commenters are correct that any assessment of the success of the implementation of section 112 could not occur prior to full development of the program, EPA does not believe that this fact prevents the Agency from fulfilling its obligations under section 112(m)(6). As stated in the draft determination notice, if, subsequent to issuing these final determinations, it becomes apparent through implementation of the other provisions of section 112 or other events that the Agency was incorrect in its initial assessment of its legal authorities, EPA could revisit and reverse them and, if necessary and appropriate, promulgate further regulations under section 112(m)(6). In addition, EPA's ability to accommodate the commenters' requests at this time is significantly constrained by the consent decree entered in *Sierra Club, et al* v. *Browner,* Civ. No. 96–1680 (D.C.C.). The schedule for EPA actions agreed to by the parties in settlement of that case requires EPA to issue the determinations by March 15, 1998. This date is well in advance of full implementation of the MACT program and the statutory deadlines for the residual risk program, and, therefore, makes it impossible to evaluate the regulatory actions EPA is taking under section 112 in these determinations.

C. Scope of Analysis

1. Summary of the Comments

Numerous comments were submitted in response to the draft determination's discussion of the scope of the analysis required by section 112(m)(6). The first area commenters addressed regarded EPA's view that section 112(m)(6) charges the Agency to assess the underlying statutory authorities of section 112, rather than the regulatory programs EPA has established pursuant to those provisions. The second area regarded EPA's focus on the ability of the Agency to use section 112 to address emissions from just domestic stationary sources of HAP, rather than either foreign, mobile, and/or non-HAP sources.

a. Statutory Authorities. State, environmental group, and congressional commenters questioned whether EPA's focus on the underlying statutory provisions of section 112, rather than on the regulatory programs that implement section 112, was appropriate and consistent with congressional intent. They argued that an assessment of statutory authorities serves little purpose to control HAP emissions if not accompanied by an analysis of the adequacy of the implementation of the regulations adopted under those authorities. Some asserted that the statutory deadline Congress imposed for making the determination, and the directive that the determination be made as part of the Report to Congress, shows EPA's statutory analysis was to

be melded with a factual inquiry into what effects are occurring and what measures are needed to prevent them. Some also argued that the statutory 1995 deadline for further measures, if any, under section 112(m)(6), means that EPA was not free to defer the control of HAP deposition to other section 112 rules that will not be in place until later years, and that any section 112 provisions that provide discretionary authority to act cannot be relied upon to support the adequacy of section 112 in light of the directive language in section 112(m)(6). Some then objected to EPA's view that section 112(m)(6), rather than imposing an absolute requirement to promulgate further regulations, establishes a duty to determine whether any further emission standards or control measures are necessary and appropriate.

In support of these arguments, environmental group commenters made several assertions. First, they stated that EPA cannot substitute its own interpretation for the plain words of the statute, and that an agency can neither enlarge upon nor narrow the terms of a statute. Second, they argued that the legislative history to section 112 shows that EPA must consider the effectiveness of regulations adopted under section 112 in the determinations. For example, one commenter cited the House Report's statement that ''[t]his subsection is intended to provide the Administrator with the responsibility and authority to promptly evaluate the sufficiency of the regulatory structure provided under section 112 * * *, giving special emphasis to the effects associated with the bioaccumulation of hazardous air pollutants'' (H.Rep. 101–490, p. 3360), and other statements that the commenter interprets as showing Congress assumed EPA would be in a position, by 1995, to evaluate a regulatory structure that had not yet been established. Third, the commenters argued that the Act required EPA to have already implemented ''the highest priority provisions'' of section 112 by November 15, 1995, and that EPA could have in fact evaluated the effectiveness of their subsequent implementation by 1995. Fourth, some commenters argued that the Act required EPA to regulate pursuant to section 112(m)(6) in advance of developing the broader section 112 program. Finally, the commenters infer that the timing of actions required under section 112 is just as much an ''adequacy'' issue as is the Agency's ability to regulate at all.

In addition, several members of Congress sent a joint letter to EPA objecting to the draft determinations[9] (letter to Carol Browner dated October 3, 1997, docket item #IV–G–474). An assessment of EPA's statutory authority under the Act is not sufficient, in their view, since EPA may never exercise some of that authority or may do so under a protracted time frame which may not be acceptable to their constituents.

b. Stationary Sources of HAP. State and environmental group commenters argued that EPA should have included a discussion of all sources of HAP emissions that deposit to the Great Waters in the adequacy determination. By excluding mobile sources, foreign sources, and contaminated sediments, since they cannot be regulated under section 112, EPA cannot make a proper analysis of section 112 authorities that apply to major and area stationary sources, they argued. Some of these commenters disagreed with EPA's view that section 112 authorities can be applied only to domestic stationary sources, and with EPA's reading of the section 112(m)(6) remedy to adopt further emission standards or control measures ''in accordance with'' section 112 as meaning that such measures must be limited to domestic stationary sources of HAP.

One commenter presented a lengthy argument that the determination should not be limited to HAP, but should also include non-HAP pollutants of concern for the Great Waters, such as NO_X. This view was based on the fact that EPA has the discretion to include non-HAP in its ongoing implementation of the Great Waters program and is directed in the section 112(m)(5) provisions regarding Reports to Congress to focus on the effects of any air-deposited pollution into the Great Waters. This latter provision, the commenter pointed out, broadly requires EPA to describe any revisions to Federal statutes as are necessary to assure protection of human health and the environment. The commenter then claimed that since EPA has exercised its discretion to address deposition-related impacts from NO_X in its Great Waters monitoring work and ongoing implementation of sections 112(m)(1)–(5), the Agency cannot exclude NO_X from the section 112(m)(6) determination of whether section 112 is adequate. This commenter suggested that by not importing the section 112(m)(5) duty to report on the need for any revisions to any Federal statutes into the more specific section 112(m)(6) determination of the adequacy of section 112, EPA was violating not only section 112(m) but also the consent decree in *Sierra Club* v. *Browner.*

2. EPA's Response

a. Statutory Authorities. The EPA stands by its view that section 112(m)(6) mandates that the Agency evaluate the underlying statutory authority provided by section 112, rather than the success of regulations adopted in implementation of the Act, in making the adequacy determination. The EPA appreciates the comments that presented concerns regarding the ''practicality'' of the adequacy determination, but EPA continues to believe that the statutory language of section 112(m)(6) supports the Agency's approach. The introductory language of section 112(m)(6) requires the Administrator to determine whether ''the other provisions of this section'' are adequate to prevent the enumerated effects (emphasis added). This is an explicit reference to the other statutory subsections and paragraphs of section 112, rather than to administrative regulations adopted pursuant to the Act. The EPA believes that this language in the introduction of section 112(m)(6) means that the Agency was directed to determine whether the provisions of section 112 itself provide sufficient authority to prevent the effects specified in section 112(m)(6). If Congress had intended EPA to take another meaning from this language, it would have established the mandate in such a manner as to clearly refer to subsequent regulatory actions as being the focus of the determination, in addition to establishing a deadline for such a determination after that regulatory program had been established.

Moreover, even if EPA is incorrect in its interpretation of the introductory phrase ''other provisions of this section,'' or if the language is ambiguous and susceptible to more than one meaning, EPA continues to believe that the rest of section 112(m)(6) supports EPA's interpretation of the introductory phrase of this ambiguous statutory paragraph, which is somewhat grammatically and syntactically awkward (e.g., *Appalachian Power Co.* v. *EPA*, No. 96–1497 (D.C. Cir., February 13, 1998)). The subsection requires EPA to have made the determination at a point in time before full development of the section 112 regulatory program. The Agency's view is also supported by the fact that the 1990 Amendments represented a fundamental overhaul of the approach to regulating air toxics,

[9] This letter was signed by Senators John Glenn, Jim Jeffords, Carol Moseley-Braun, Carl Levin, Herb Kohl, and Daniel P. Moynihan, and by Representatives Steven LaTourette, Lane Evans, Sander Levin, Louise M. Slaughter, John Conyers, Maurice Hinchey, James Oberstar, Sherrod Brown, Lynn N. Rivers, Bart Stupak, and Louis Stokes.

and it was reasonable for Congress to have been uncertain as to whether the new fleet of provisions in section 112 were sufficient to address HAP deposition. For this reason, EPA disagrees with assertions that an assessment of the legal authority granted by the other provisions of section 112 serves little purpose. As stated in the draft determination, section 112(m)(6) directed EPA to do an early, pre-full implementation analysis of the new legal authority provided by the substantial and complex revisions to section 112 enacted in the 1990 Amendments. If the Agency concluded those new provisions could not be employed to prevent the enumerated effects, EPA interprets the Act as directing it to take necessary and appropriate further regulatory action that was not otherwise contemplated by those other provisions to fill the identified gap by November 15, 1995. The schedule for this analysis and the establishment of gap-filling further regulations under section 112 ensures that if EPA concluded that the substantial rewrite of section 112 was not sufficient to protect the Great Waters from HAP deposition from stationary sources, EPA would be able to take administrative action to meet this environmental objective without having to return to Congress to seek further statutory authority.

The EPA believes that the first two Reports to Congress do reflect a substantial factual inquiry into the effects of HAP deposition to the Great Waters, and EPA's assessment of its legal authority under the other provisions of section 112 was influenced by that inquiry. But EPA disagrees with the commenters who read the regulatory deadline in section 112(m)(6) as meaning that EPA may not rely upon either later-in-time or discretionary authority under section 112 in support of the section's adequacy. The language in section 112(m)(6) in no way puts discretionary authority under section 112 off limits for purposes of the adequacy determination. It does not follow that simply because such action can be taken after November 15, 1995, that Congress either excluded those provisions from the scope of the adequacy determination or required EPA to conduct an assessment other than of the statutory provisions of section 112. Moreover, while section 112(m)(6) establishes a duty to determine whether it is necessary and appropriate to take further action to prevent adverse effects from HAP deposition to the Great Waters,[10] the deadline for promulgation of any further regulations does not imply a deadline for either achieving that protection or for source compliance with further measures.

The EPA does not find the legislative history cited by the commenters to conflict with EPA's reading. While the quoted language in the House Report could be interpreted as the commenter suggests, EPA notes that the discussion in the House Report also assumed that EPA would be issuing the report and determination within 2 years after passage of the 1990 Amendments, and after an opportunity for public comment (H.Rep. 101–490, p. 336). This even more abbreviated schedule would have compounded the impossibility of assessing the adequacy of a not-yet-adopted regulatory program, and EPA doubts that the Congress as a whole, or even the entire House of Representatives, interpreted section 112(m)(6) consistently with the commenter's reading. The other passages cited by the commenter reiterate that if EPA finds the Act does not adequately prevent adverse effects of HAP deposition, EPA is to take further necessary and appropriate action—but, again, it is the adequacy of section 112 itself and the existence of adverse effects that are at issue and discussed in these passages, rather than the post-enactment development of regulatory programs under the Act.

While some of the deadlines for some regulatory actions under section 112(e) did fall before November 15, 1995, promulgation alone of a standard under section 112(d) may not yield the information needed to assess its success in actually preventing certain effects that the standard may have been expected to achieve at promulgation. This is because, under section 112(i), varying deadlines for compliance with promulgated standards apply, based on whether a source is new or existing, whether it achieves early reductions of HAP emissions, whether additional time to install controls is needed, and other factors as specified, for example, in sections 112(i)(1)–(8).[11] If EPA were to perform an analysis of the actual effectiveness of its regulations in preventing effects, it would presumably be more possible to do so after the Agency had an opportunity to assess progress made as a result of source compliance with the standards. Thus, even though some of the standards under section 112(e) may have been due before, at the same time as, or soon after 1995, the factual information needed to evaluate the actual effectiveness of the developing regulatory programs would not be available for several years after the deadline for the determination.

Congress clearly understood that by prescribing a schedule in which EPA would promulgate standards over no less than 10 years, full control of HAP emissions from covered stationary sources could not be achieved immediately. Section 112 does not impose any barriers on EPA which prevent it from taking actions in advance of statutorily prescribed deadlines in those instances where the Agency believes that early action is necessary to achieve the purpose of the section. Thus, EPA believes that it cannot determine that the authorities available to it under section 112 are inadequate based on possible concerns about whether the schedule prescribed by Congress is sufficiently rapid. To do so would implicitly raise the question as to why Congress also directed the Agency to make the adequacy determination in section 112(m)(6).

The EPA also disagrees with commenters who argued that EPA was directed to assess the particular authority added by section 112(m)(6) and implement it first, before development of the broader section 112 program. Such a reading renders the duty to assess the adequacy of the ''other provisions'' of section 112 meaningless. As mentioned above, the statute and the legislative history show that EPA is to first determine whether the other provisions of section 112 are adequate and whether further regulations as provided by section 112(m)(6) are needed, before issuing any such regulations. This basic structure is reflected in the consent decree.

Finally, EPA respectfully disagrees with the members of Congress who commented that EPA's approach is based on a ''technicality'' in the language of section 112(m)(6). As stated above, EPA does not agree that section 112(m)(6) is appropriately interpreted as

[10] One commenter misinterprets the point of EPA's citation to *Environmental Defense Fund* v. *Thomas*, 870 F.2d 892, 898–900 (2nd Cir. 1989). The EPA cited this case in support of the proposition that section 112(m)(6), rather than establishing an absolute requirement to promulgate further emission standards and control measures, requires EPA to initially determine whether such measures are necessary and appropriate. The EPA did not mean to imply that EPA's action to make this determination could not be compelled under Act section 304. However, EPA does not agree with the commenter that EPA's determinations under section 112(m)(6)are reviewable final actions under section 307 of the Act.

[11] For example, note that section 112(i)(3) provides that existing sources may have up to 3 years to comply with new standards, and that this period may be extended in certain cases.

excluding discretionary authority provided by section 112 from the scope of the adequacy determination, since the broad, unqualified phrase ''other provisions of this section'' does not imply that EPA must assess only the provisions that EPA may be compelled to implement. The EPA disagrees with the argument, which some commenters made, that only the mandatory provisions under section 112 be included in the adequacy determination. This is because the discretionary provisions provide specific authority to address adverse effects and because section 112(m)(6) itself allows EPA to exercise some discretion in determining whether any further regulations are necessary and appropriate, even if the other provisions of section 112 are not adequate. Therefore, EPA continues to believe the scope of the draft determination was correct in evaluating the statutory authorities provided by section 112, rather than the regulatory actions taken under the section, and EPA continues to rely on its analysis (62 FR 36438–39, July 7, 1997).

In addition, EPA notes that interpreting section 112(m)(6) to require an assessment of the success of EPA's regulations implementing section 112 could frustrate the jurisdictional scheme established in the Act for judicial review of EPA's substantive actions. Standards under section 112 are subject to judicial review in the Court of Appeals under section 307(b)(1) of the Act. A petition for review must be filed within 60 days from the date notice of the final action appears in the **Federal Register**. This short window of opportunity to challenge final regulations is time limited in part so that standards do not become the subject of review in subsequent implementation, such as in enforcement actions or in applicability determinations, with possibly disastrous and inconsistent programmatic consequences. If today's action were to be treated as a referendum on EPA's individual regulatory actions, amounting to a wholesale reopening of the regulations themselves, the goals of section 307(b) of ensuring the ''finality'' of EPA's actions and of circumscribing the methods by which those actions can be reviewed, could be circumvented.[12] The Agency believes that Congress could not have intended this result, especially in light of the fact that the determination was due under the statute in advance of the majority of EPA's final actions under section 112 being taken and implemented.

b. Stationary Sources of HAP. The EPA continues to believe that the proper focus in assessing the adequacy of section 112 under section 112(m)(6) is on HAP emissions from sources that are within EPA's jurisdiction to regulate under section 112. This means that EPA is not required to determine whether the provisions of section 112 are adequate to control HAP emissions from mobile sources, HAP emissions from non-domestic sources, recycling of HAP historically introduced to the environment that cannot be controlled though regulation of stationary sources, or non-HAP emissions from all sources. The EPA believes this interpretation is clear from the statutory language directing EPA, in the case of an ''inadequacy'' determination, to issue necessary and appropriate further regulations in accordance with section 112, and from the fact that section 112(m)(6) directed EPA to assess the adequacy of section 112 rather than that of the Clean Air Act as a whole. The EPA disagrees with assertions that a proper analysis of section 112 provisions applicable to major and area stationary sources cannot be performed without considering emissions from non-section 112 sources, and with the view that the section 112(m)(6) remedy may apply to sources other than domestic stationary sources of HAP. In contrast, including non-section 112 sources within the scope of the assessment of whether section 112 is adequate might arguably force an ''inadequacy'' determination, since it goes without saying that section 112 cannot be used to regulate HAP emissions from such sources. This could then result in the confounding situation that if HAP emissions from those non-section 112 sources cause section 112 to be inadequate, EPA would be required to establish further controls applicable only to section 112 sources in order to remedy the deficiency, even if doing so could not achieve the desired result. Moreover, section 112(m)(6) provides authority to establish further regulations only ''in accordance with'' section 112, and does not itself enable EPA to adopt regulations applicable to sources covered by other titles in the Act (or not covered at all by the Act). Therefore, EPA believes that the more reasonable reading of the mandate of section 112(m)(6) that the regulatory remedy be ''in accordance with'' section 112 is as a limitation on the sources of HAP that EPA is to include within the scope of the determination. Under EPA's reading, the scope of Congress's question regarding the adequacy of section 112, and the scope of the remedy Congress allowed EPA to establish if section 112 is inadequate, are consistent, and the further regulations adopted under section 112(m)(6) could be crafted to address whatever deficiency EPA would have found in the other provisions of section 112 itself. If Congress had intended EPA to include non-section 112 sources within the scope of the determination, in order to allow EPA to apply the section 112(m)(6) remedy to the deficiency caused by the failure of section 112 to extend to such sources, Congress would not have limited its scope to further regulations under section 112.

The EPA disagrees with arguments that Congress intended that EPA could use section 112-like procedures to list other types of sources and establish section 112 controls for them. The Clean Air Act establishes a distinct separation of the stationary source and mobile source programs, under which single sources are to be regulated under either the mobile source or stationary source programs.[13] This separation is due to the fundamental differences in approach of the two programs. The stationary source program generally applies to owners and operators of stationary sources, while the mobile source program generally applies to manufacturers of engines and vehicles that are sold in United States commerce (without generally regulating operation of those mobile sources). Under the commenter's reading, this separation would fall. The EPA also believes section 112(m)(6) could not possibly be interpreted as conferring jurisdiction to regulate sources that are outside the scope of the Clean Air Act entirely (e.g., foreign sources) or activities that do not fit within either of the basic regulatory approaches of the Act (e.g., background concentrations of HAP in the

[12] As noted above, EPA does not believe that today's notice, in that it is a supplement to the second Report to Congress, is a judicially reviewable final action under Act section 307(b). But if a reviewing court were to find it had jurisdiction to review the contents of the determination, and the determination regarded the adequacy of regulatory final actions, the statute of limitations provided by section 307(b) could be undermined.

[13] See, e.g., section 111(a)(3), defines ''stationary source'' for purposes of section 112: ''The term 'stationary source' means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in title II of this Act relating to nonroad engines shall be construed to apply to stationary internal combustion engines.'' 42 U.S.C. 7411(a)(3), 7412(a)(3). See also section 216(11), defining ''nonroad engine'' as ''an internal combustion engine * * * that is not subject to standards promulgated under section 111 * * *.'' 42 U.S.C. 7550(11).

environment that do not constitute either stationary or mobile sources).

The EPA also disagrees with commenters who argued that the adequacy determination should cover pollutants that are not listed as HAP. While the other paragraphs in section 112(m) allow EPA to exercise discretion to study and report on the impacts of deposition of non-HAP such as nitrogen compounds, section 112(m)(6) is explicit in stating that EPA is to determine whether section 112 is adequate to prevent effects associated with HAP deposition, and does not require EPA to include within the scope of the determination other pollutants the Agency has chosen to address under other aspects of the Great Waters program. The EPA, having exercised its discretion to address NO_X under section 112(m)(1)–(4), is required under section 112(m)(5) to report to Congress on the results of any monitoring, studies, and investigations regarding NO_X conducted under section 112(m). That report is required to include, among other things, a description of any revisions to existing Federal law EPA identifies as necessary to assure protection of human health and the environment (42 U.S.C. 7412(m)(5)(E)). However, the separate and distinct requirement in section 112(m)(6) that EPA determine the adequacy of section 112 refers only to deposition of HAP, without the reference to the discretionary authority to study non-HAP under the other provisions of section 112(m). Moreover, as discussed above, the remedy for an inadequacy determination is further regulation under section 112, which can only address pollutants that have been listed as HAP.[14] Since the rulemaking procedures and criteria for listing a pollutant are clearly set forth in section 112(b), EPA does not believe it would have the legal authority to grant HAP status to a pollutant merely by exercise of its discretion to include a non-HAP within the scope of its monitoring and studying functions under the Great Waters program. For a nitrogen compound, e.g., NO_X, to come within the scope of the section 112(m)(6) determination and possible remedy, it would first have to be listed as a HAP pursuant to section 112(b). Further, EPA disagrees with assertions that by excluding NO_X from the scope of the adequacy determination, it is violating the consent decree in *Sierra Club* v. *Browner.* The consent decree does nothing to extend the language of section 112(m)(6) to cover non-HAP pollutants.

Therefore, EPA continues to believe that the approach taken in the draft determinations to focus on only domestic stationary sources of HAP was correct. Today's section 112(m)(6) determinations consequently are limited to consideration of the adequacy of the other provisions of section 112 to prevent the enumerated effects associated with HAP emissions from sources that are within the scope of EPA's section 112 regulatory authority (62 FR 36438–39, July 7, 1997).

D. Definition of Adverse Environmental Effect

1. Summary of the Comments

Environmental group commenters objected to EPA's interpretation that the language in the section 112(a)(7) definition of ''adverse environmental effect'' applies to as broad a set of environmental impacts as does the language in section 112(m)(6) addressing ''serious or widespread environmental effects'' associated with HAP deposition. They did not agree with EPA that the language in the two subsections functions interchangeably, primarily because section 112(m)(6) uses the word ''or'' to link ''serious'' with ''widespread'' environmental effects, rather than the word ''and.'' (In contrast, section 112(a)(7) defines ''adverse environmental effect'' to mean ''any significant and widespread adverse effect, which may be reasonably anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.'') The commenters argued that an environmental impact could qualify under the former test while not under the latter, meaning that the universe of effects under the definition of adverse environmental effect is necessarily narrower than the universe of effects section 112(m)(6) addresses. The commenters asserted that under EPA's interpretation, EPA could not, for example, prevent effects of mercury deposition in the Everglades on alligators or protect a particular ecosystem such as one of the Great Lakes or even the Great Lakes ecosystem as a whole. The commenters cited legislative history that they believe supports the view that Congress deliberately used the disjunctive ''or'' in section 112(m)(6), and argue that EPA improperly relies upon case law in support of the proposition that the use of ''or'' should not automatically render it as applying differently than the definition of ''adverse environmental effect.''

2. EPA's Response

The EPA continues to believe that the scope of the term ''adverse environmental effect'' defined in section 112(a)(7) applies just as broadly as the language in section 112(m)(6) directing EPA to address ''serious or widespread environmental effects.'' The Agency recognizes that the language of the two sections is literally different. But EPA also urges that the presence of that difference reveals a substantial degree of ambiguity in the statutory language that EPA, in implementing section 112(m)(6), must reasonably interpret (*Chevron U.S.A., Inc.* v. *NRDC,* 467 U.S. 837 (1984)).

The EPA does not agree that the use of ''or'' in section 112(m)(6), combined with the subsection's explicit reference to indirect exposure pathways and bioaccumulation, means that it must be interpreted as specifically providing EPA more authority to address impacts from HAP deposition than is provided otherwise under section 112. The EPA does not believe that impacts resulting from indirect exposure pathways or bioaccumulation are excluded from the scope of the definition of ''adverse environmental effect.'' This is partly because several other provisions of section 112 reveal Congress' broader concerns with these aspects of HAP emissions, such as the section 112(a)(1) definition of ''major source,''[15] the section 112(b)(2) criteria for adding pollutants to the HAP list,[16] and the section 112(m)(1)(D) directive that EPA assess adverse effects to the environment from HAP deposition.[17] Since EPA is clearly empowered to consider these factors when implementing the broader section 112 program, the fact that section 112(m)(6) also explicitly refers to them does not mean that it provides greater authority than section 112 otherwise does in allowing EPA to prevent ''adverse environmental effects.'' In fact, the broader language in section 112(a)(7) referring to ''any'' enumerated effect

[14] This does not imply, however, that EPA may not assess the need to pursue any future revisions to existing Federal law necessary to assure protection of human health and the environment from NO_X emissions.

[15] As mentioned above, section 112(a)(1) allows EPA to establish LQER for determining whether a source is major, based on such factors as persistence, potential for bioaccumulation, or other relevant factors.

[16] Sections 112(b) (2) and (3) require evaluation and revision of the list based on factors such as exposure pathways other than inhalation, bioaccumulation, deposition.

[17] Section 112(m)(1)(D) includes as an example of ''adverse effects to public health or the environment'' effects that result ''from indirect exposure pathways.''

''which may be reasonably anticipated'' evinces congressional intent to not restrict the scope of that term to only certain specific impacts.

For similar reasons, EPA disagrees that the sentence construction in section 112(a)(7) and 112(m)(6) force a conclusion that the scope of environmental effects in the latter is broader than that in the former (and that the other provisions of section 112 are therefore inadequate). In interpreting the ambiguous language of section 112(m)(6), the Agency has discovered clear evidence of congressional intent for the two phrases to have the same meaning. First, in the provision of section 112(m) initially establishing the Great Waters program, section 112(m)(1) charges EPA to ''evaluate any adverse effects to public health or the environment caused by (HAP) deposition (including effects resulting from indirect exposure pathways).'' This use of a variant of the language in the definition of ''adverse environmental effect,'' as inclusive of the same types on non-direct exposure routes as that mentioned in section 112(m)(6), suggests Congress' use of different language in section 112(m)(6) than is used elsewhere in section 112 may have been inadvertent.

Second, the legislative history suggests that the members of Congress championing section 112(m)(6) understood its language to encompass the same scope as adverse environmental effects. For example, in describing the amendment to add section 112(m)(6), Congressman Levine stated, ''If the EPA finds that the Clean Air Act does not protect human health or the environment from airborne depositions, the EPA would be required to develop regulations to prevent such adverse effects.'' [18]

Third, EPA disagrees that the language of section 112(a)(7) defining adverse environmental effect must be so narrowly construed as to prevent the Agency from being able to use its various section 112 authorities to address significant impacts that occur, for example, in only a single Great Lake (or the Great Lakes collectively) or such a substantial water body as the Everglades. In the section 112(a)(7) reference to ''any'' enumerated effect in the singular clearly contemplates impacts of limited geographic scope, suggesting that the ''widespread'' criterion does not present a particularly difficult threshold to cross. This is further supported by the fact that section 112(a)(7) provides as an example of adverse environmental effects, adverse impacts on populations of endangered or threatened species, which as reflective of their imperiled status are especially likely to exist in limited geographic areas. Moreover, EPA has in other contexts interpreted ''widespread'' to have a very localized meaning: e.g., EPA interpreted ''widespread'' economic impacts as being those that applied to a single community.[19] Ultimately, EPA believes that the ''widespread'' criterion would not exclude impacts that might occur in one of the Great Lakes, the Chesapeake Bay, another Great Waters water body, or a significant portion of such a water body. For example, EPA believes that it could, in appropriate cases, employ its section 112 authorities to address adverse environmental effects in concert with its efforts to establish total maximum daily loads under the Clean Water Act.

Fourth, EPA continues to believe the case law cited in the draft determination, in addition to more recent case law, is supportive of the Agency's approach (e.g., *De Sylva* v. *Ballentine,* 351 U.S. 570 (1956) (''the word 'or' is often used as a careless substitute for the word 'and,' that is, it is often used in phrases where 'and' would express greater clarity''); *Bell Atlantic Telephone Co.* v. *FCC,* No. 97–1432 (D.C. Cir. Dec. 23, 1997); *Alarm Industry Communications Committee* v. *FCC,* No. 97–1218 (D.C. Cir. Dec. 30, 1997); *U.S.* v. *Moore,* 613 F.2d 1029 (D.C. Cir. 1979); *U.S.* v. *One Rolls Royce,* 43 F.3d 794 (3rd Cir. 1994); *Kelly* v. *Wauconda Park Dist.,* 801 F.2d 269 (7th Cir. 1986); *U.S.* v. *Smeathers,* 884 F.2d 363 (8th Cir. 1989)). The EPA does not believe it is necessary to read the literal differences in the language of section 112(a)(7) and 112(m)(6) as being determinative of the adequacy of section 112. As shown by the legislative history, Congress did not appear to assume it was requiring EPA to do so. The use of language similar to that in section 112(a)(7) in establishing the general Great Waters program shows Congress expected the scope of environmental effects addressed by the Great Waters program to be the same as those that would qualify as adverse under section 112. If the literally different language absolutely forced a difference in real meaning, the need for Congress to have asked EPA to assess the adequacy of the other provisions of section 112 would not be apparent, since as a definitional matter, it would have been impossible for section 112 to be ''adequate'' for purposes of section 112(m)(6).

The EPA also believes other considerations argue against making too much of the language differences of the two subsections. Read literally, it is not necessarily the case that section 112(m)(6) would reach a broader universe of impacts than does section 112(a)(7). This is because section 112(a)(7) could be interpreted as allowing EPA to address a singular impact that may merely be reasonably anticipated (i.e., a lone impact that does not yet exist but that could be rationally expected to occur), whereas section 112(m)(6) could be interpreted to address only presently occurring impacts that exist in the plural. In addition, while under a literal reading of section 112(m)(6), a qualifying effect could be one that is merely ''widespread'' but not ''serious,'' the fact that an impact might not be serious could complicate the Agency's practical ability to address it in a regulatory context, whereas under section 112(a)(7) that ''widespread'' impact would only need to be ''significant'' in order to be plainly within the definition.[20] As a result, EPA believes that it is reasonable to reconcile the differences in the statutory language of section 112(a)(7) and 112(m)(6) in a manner that makes them most consistent and seems to give greatest effect to Congress' apparent intended meaning and purpose (*Bell Atlantic Telephone Co.s* v. *FCC,* No. 97–1432 (D.C. Cir. Dec. 23, 1997)). The Agency continues to rely on the rationale contained in the draft determination for this approach (62 FR 36440–41, July 7, 1997).

[18] Remarks of Mr. Levine, House Debate 5–21–90, reprinted in ''A Legislative History of the Clean Air Act Amendments of 1990,'' at 2633. See also, Remarks of Mr. Bilirakis, House Debate 5–23–90, *id.,* at 2941 (''The amendment further grants authority to EPA to regulate such substances should it find that the amended Clean Air Act is inadequate to prevent serious adverse effects on human health and the environment.''); Remarks of Mr. Lagomarsino, *id.,* at 2946 (''If the EPA finds that other provisions of the Clean Air Act do not adequately prevent depositions, the EPA would be authorized to develop regulations to prevent such adverse effects.''); Remarks of Mr. Levine, *id.,* at 2938 (''In the event that the EPA found that other provisions of the Clean Air Act did not adequately prevent serious adverse impacts, the EPA would be required to develop regulations to prevent such adverse impacts with regard to the Pacific, Arctic, Atlantic, and eastern gulf coasts.''; Remarks of Mrs. Lowey, *id.,* at 2939 (''Under the Amendment, if EPA finds that the Clean Air Act does not adequately minimize dangers to human health and the environment from toxic depositions, EPA is authorized to develop regulations to prevent such adverse effects.'').

[19] See Final Rule, Water Quality Standards Regulation, 48 FR 51400, 51401 (November 8, 1983), codified at 40 CFR 131.10(g)(6).

[20] See the dictionary definitions of ''serious'' as ''having important or dangerous possible consequences,'' and ''significant'' as ''having or likely to have influence or effect'' Webster's Ninth New Collegiate Dictionary (Merriam-Webster Inc., Springfield, MA: 1986).

E. Regulations to Control Emissions of Pollutants

The EPA also received comments questioning the ability of the provisions of section 112 relating to emission standards to control HAP and prevent adverse impacts from deposition. Some of these comments raised distinct questions about whether certain provisions could be used to address the effects enumerated in section 112(m)(6), while others focused on the timing the Act provides for implementing these provisions, even assuming they can prevent the enumerated effects.

1. Summary of the Comments

a. Utility of Section 112 Emission Control Provisions. State and environmental groups commented that even where airborne deposition of HAP has serious adverse effects to public health and the environment, EPA's ability to control emissions of those HAP under the section 112(d) MACT and GACT programs is still constrained by what current technology can achieve. The commenters requested that EPA describe how MACT standards will in fact be developed to prevent adverse effects. They then argued that even though the section 112(f) residual risk authority allows more stringent post-MACT or -GACT standards based on environmental needs, since section 112(f) requires EPA to consider factors such as ''costs, energy, safety, and other relevant factors'' in setting residual risk standards to prevent an adverse environmental effect and does not explicitly address indirect exposure pathways, it is ambiguous how much legal flexibility EPA has to actually achieve environmental quality-based goals. Since section 112(m)(6) does not specify these factors but does refer to indirect exposure pathways, they argued, it must provide greater authority. Some argued that EPA's regulatory authority contains a gap simply by virtue of the fact that mobile sources and foreign sources emit HAP that deposit in the Great Waters, while section 112 can only reach domestic stationary sources, and that section 112 is inadequate to control other human activities or other causes of HAP deposition, such as pesticide application and revolatilization.

b. Timing of Implementation of Section 112 Provisions to Control HAP Emissions. State and environmental groups observed that EPA is still in the process of establishing initial MACT standards, and that EPA may wait up to 8 more years after promulgation of MACT before setting environment-based residual risk standards after MACT has been established for a source category. They noted that these standards would then likely be subject to litigation, especially due to the requirement that EPA consider the several aforementioned factors in setting residual risk standards. They then argued that the fact that EPA has already missed several statutory deadlines under section 112 suggests the timing of EPA's implementation of the program may be too protracted. Since some argued that the determination was due in 1993 and was to address the new regulatory program, with further regulations required if EPA found section 112 to be inadequate, those further remedial regulations were due to be established and successfully implemented long before then.

The members of Congress who objected to the draft adequacy determination were troubled by the lack of focus on the amount of time that it would take to achieve the Great Waters goals under the other provisions of section 112 (letter to Carol Browner, dated October 3, 1997, docket item #IV–G–474). Those members asked EPA to inform Congress of the Agency's specific plan and time frame for using section 112, and stated that if the required protection can be provided but not in a ''timely fashion,'' section 112 is not adequate.

2. EPA's Responses

a. Utility of Section 112 Emission Control Provisions. The Agency recognizes that MACT and GACT standards promulgated pursuant to the provisions of section 112(d) are not required to achieve specified health-based results or to prevent specified environmental effects. However, section 112(d)(2) does contemplate that EPA would take into account measures that are consistent with ''pollution prevention'' principles when setting standards. For example, the introductory language to section 112(d)(2) directs EPA to establish standards that, where achievable, prohibit emissions of HAP, and paragraph (A) of that subsection anticipates that MACT will either reduce or ''eliminate'' such emissions.

In addition, EPA disagrees that the factors EPA is required to consider in setting health- or environment-based residual risk standards under section 112(f) would limit EPA's ability to prevent adverse effects resulting from HAP deposition to any greater degree than would be the case if EPA were to adopt standards under section 112(m)(6). As explained in the draft determinations, EPA has substantial discretion in determining how to evaluate those factors and what weight to give them, and need not value any single factor above the others or above the need to prevent an adverse environmental effect.[21] While section 112(m)(6) does not refer to factors such as those specified in section 112(f)(2), under the Great Waters provision, the Agency is directed to establish such further regulations ''as may be necessary and appropriate to prevent'' adverse effects from HAP deposition to the Great Waters. Congress' use of such language indicates that EPA is expected to weigh considerations in addition to the need to prevent adverse effects when establishing regulations under section 112(m)(6). Such further regulations would need to be both ''necessary'' and ''appropriate'' to achieve their purpose, and the factors that EPA traditionally considers when establishing binding regulations (e.g., costs, technological feasibility, lead time, safety, energy) would naturally come into play. The EPA also disagrees with the assertion that residual risk regulations could only be developed in consideration of direct exposure pathways. Nothing in the statutory language of section 112(f) implies such a limitation on the utility of the residual risk program. And, in light of the fact that other provisions of section 112 such as the definition of major source at section 112(a)(1) and the section 112(b) HAP listing provisions permit EPA to consider indirect exposure pathways, consideration of such effects would not be precluded under the residual risk program.

The EPA also disagrees that section 112, simply due to its limited reach of applying only to domestic stationary sources, is inadequate. Congress could not have assumed that the adequacy question could be answered so easily, since it was common knowledge that the section 112 authorities could only apply to stationary sources. The commenters have not identified any inadequacies in the provisions of section 112 themselves that would prevent EPA from addressing adverse impacts from deposition of HAP emitted by domestic stationary sources, and therefore EPA disagrees that section 112 contains a gap in authority. In sum, EPA continues to believe it has sufficient legal authority through the implementation of section 112(d) and

[21] *New York* v. *Reilly*, 969 F.2d 1147, 1150 (D.C. Cir. 1992) (citing *Center for Auto Safety* v. *Peck*, 751 F.2d 1336, 1342 (D.C. Cir. 1985), *Weyerhauser Co.* v. *Costle*, 590 F.2d 1011, 1045 (D.C. Cir. 1978) (Congress ''left EPA with discretion to decide how to account for the consideration of factors, and how much weight to give each factor.''); *Appalachian Power Co.* v. *EPA*, No. 96–1497 (D.C. Cir., February 13, 1998).

112(f) to achieve the preventative mandate of section 112(m)(6), and continues to rely upon the rationale contained in the draft determinations (62 FR 36442–44, July 7, 1997).

In addition, EPA wishes to point out two additional provisions of section 112 that support the Agency's conclusion that it is adequate under section 112(m)(6). First, section 112(d)(4) provides that, with respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under section 112(d)(42 U.S.C. 7412(d)(4)). If EPA invokes this provision, it must assure that any emission standards would not only result in ambient concentrations that would protect the public health with an ample margin of safety, but that the standards would also be sufficient to protect against the threat of adverse environmental effects (62 FR 33631, June 20, 1997). Second, under section 112(l), states may develop and submit to EPA for approval their own programs for implementation and enforcement of emission standards for HAPs (42 U.S.C. 7412(l)(1)). The EPA has previously stated its view that section 112(l) provides authority to approve state programs that contain elements for controlling the potential-to-emit (PTE) of source HAP emissions (61 FR 36295, 36296–7, July 10, 1996). Under such a program, a state could, for example, issue a prohibitory rule applicable to source HAP emissions, or a federally enforceable state operating permit applicable to a specific source to control its HAP PTE.

b. Timing of Implementation of Section 112 Provisions to Control HAP Emissions. The fact that EPA has missed some of the statutory deadlines established in the Act is not relevant to the subject of the adequacy of section 112 to prevent adverse effects from HAP deposition. If anything, the Clean Air Act's provision of a mechanism under section 304 by which citizens can enforce these statutory deadlines and seek to compel EPA to implement the provisions of section 112 (a failure which is only ''temporary'' in that it does not preclude ultimate implementation of the underlying statutory authority) supports EPA's confidence in the substantive utility of section 112. The EPA also disagrees with the interpretation that the November 15, 1995 deadline in section 112(m)(6) for establishing any necessary and appropriate further regulations compels a conclusion that the other provisions of section 112 that provide later deadlines are either inadequate or are irrelevant for purposes of the determination. Nowhere in section 112(m)(6) does it specify at what point in time sources would be required to comply with such further regulations, or at what point the environmental goals of section 112(m)(6) would have to be achieved (e.g, *Appalachian Power Co.* v. *EPA*, No. 96–1497 (D.C. Cir., February 13, 1998)). It is certain that Congress, in enacting the complicated provisions of section 112 in the 1990 Amendments, understood that full development of the HAP program would take a significant amount of time, and that, in addition, full source compliance with the new program would not occur immediately upon the establishment of the program. The schedules for development and compliance contained in section 112(e) and 112(i), for example, are clear evidence of this understanding. In light of this, if Congress had in fact intended that any regulations adopted under section 112(m)(6) would be immediately implemented and enforced, with successful results, upon their promulgation, it would have been unnecessary to ask whether the other provisions of section 112 that employed the more detailed and longer implementation schedules are adequate, since they clearly could not have been. Rather, EPA believes that the specific timetables for implementation of the other section 112 provisions, contrasted with the bare deadline in section 112(m)(6) for promulgating any necessary and appropriate further regulations, actually do more to assure timely achievement of the intended results, as a statutory matter, than does section 112(m)(6). Therefore, EPA rejects the reading that section 112(m)(6) requires the actual prevention of adverse effects from HAP deposition to be achieved in advance of when the other provisions of section 112 could be employed to prevent them.

The EPA recognizes that the time frame for implementation of section 112 is also a concern of the members of Congress who objected to the draft adequacy determination, and who requested EPA to set forth the Agency's specific plan and schedule for implementing section 112. In response, EPA first refers attention to section 112(c)–(f), which establishes several deadlines for EPA action.[22] In addition, there have been several consent decrees entered by the district courts establishing new deadlines in cases where EPA has missed the statutory deadlines.[23] Finally, EPA has included in the docket for today's notice a document that sets forth in detail EPA's most up-to-date expected schedule for implementation of the general section 112 program which has also been forwarded, along with a copy of this notice, to the individual members of Congress who signed the letter commenting on the draft determination.

F. Mercury and Electric Utilities Reports to Congress

1. Summary of the Comments

In comments supporting the discussion of the section 112(n) provisions governing reports to Congress on mercury emissions and emissions from electric utilities in the draft determinations, an industry commenter stated that attempting to regulate electric utility steam generating units under section 112(m)(6)(assuming the Agency concluded that the other provisions of section 112 are inadequate) would thwart Congress' intent that regulation of such units under section 112 could occur only if EPA had found under section 112(n)(1)(A) that regulating these sources is necessary and appropriate. Especially if regulation under section 112(m)(6) were attempted in advance of the completion of the section 112(n)(1)(A) utility study, they argued, section 112(n)(1)(A) would be rendered irrelevant.

An environmental group commenter, on the other hand, argued that since at the time of the draft determinations neither the mercury nor the utility reports were completed, and EPA had not made any decision regarding whether it is necessary and appropriate to regulate HAP emissions (particularly mercury) from electric utility steam generating units, EPA is obligated under section 112(m)(6) to ''immediately'' promulgate further regulations to reduce mercury emissions from coal-burning power plants. In the alternative, they

[22] In summary, section 112(c)(3) in concert with section 112(k)(3)(B) requires EPA by November 15, 1995, to have listed categories and subcategories of area sources sufficient to ensure that 90 percent of area source emissions of the 30 HAP that present the greatest threat to public health in large urban areas are subject to regulations promulgated by November 15, 2000; the same deadlines apply under section 112(c)(6) for listing and regulating sources of emissions of seven specified HAP that are pollutants of concern for the Great Waters Program; section 112(d)(2) provides a detailed schedule for the regulation of coke ovens; section 112(e)(1) establishes deadlines for promulgation of MACT and GACT standards ranging from November 15, 1992, though November 15, 2000; section 112(f)(2) provides the deadlines for establishing residual risk standards after promulgation of standards under section 112(d); and section 112(i) sets forth the detailed schedules for when certain types of sources are required to comply with promulgated standards.

[23] Docket number A–97–21; item II–B–2 for 2 year and 4 year MACT schedules.

demanded that EPA immediately complete the mercury and utility reports and promulgate measures to reduce mercury from power plants such that adverse health effects from mercury in the Great Waters, and resulting fish consumption advisories, are eliminated.

2. EPA's Response

The EPA agrees that section 112(n)(1)(A) is the primary provision of section 112 pursuant to which the Agency could determine whether it is appropriate to regulate HAP emissions from electric utilities. The EPA will be making the determination of whether it is appropriate and necessary to regulate such emissions in the context of fulfilling the Agency's responsibilities under section 112(n)(1). If EPA concludes that such regulation is necessary and appropriate, the full range of authority contained in section 112 would be available to address HAP emitted by electric utilities.

The EPA disagrees that the then-pending status of the mercury and utility reports established an immediate duty for EPA to regulate mercury emissions from electric utilities under section 112(m)(6). The environmental group's position is based on its view that section 112(m)(6) requires EPA to regulate all HAP emissions under that provision pending development of the broader regulatory program under the other provisions of section 112. The EPA does not believe that section 112(m)(6) trumps the statutory schedule for development of the section 112 program. The EPA also notes that the demand that EPA ''immediately'' promulgate controls under section 112(m)(6) for mercury emissions from utilities conflicts with the schedule reflected in the consent decree entered in *Sierra Club, et al* v. *Browner,* under which any further emissions standards would not be due until November 15, 2000.

G. Solid Waste Incineration Units

1. Summary of the Comments

An environmental group commented regarding EPA's discussion of its authority under section 112(f) and 129 to regulate HAP emissions (and emissions of other pollutants) from solid waste incineration units such as medical and municipal waste incinerators. In essence, these comments object to the standards EPA has already developed under section 129 for controlling emissions from these sources, and demand that EPA explain exactly how the Agency will implement the residual risk program to address any remaining impacts that may exist. They list several specific things that the commenter believes revised standards under section 129 must achieve or incorporate. These include setting a goal of zero discharge of dioxin for all medical waste incinerators, and other such regulatory actions to achieve the preventative goals of section 112(m)(6).

2. EPA's Response

The comments objecting to the stringency of the current section 129 standards for medical and municipal waste incinerators are not within the scope of today's determination of whether the statutory authorities provided by section 112 are adequate. These regulations were adopted pursuant to the procedural requirements of section 307(d) of the Act. The proper forum for challenging the sufficiency of a particular regulation is either: (1) The rulemaking action establishing the standard itself (either in comments on the proposed regulation or in a petition for review of the final action rulemaking action under section 307(b)); or, (2) a petition for reconsideration of the final rule (and possible petition for review of the Agency's final action in response to the petition). Today's notice is not the appropriate place to address comments objecting to the substance of the regulations adopted pursuant to section 129. Rather, EPA notes that the commenter does not dispute EPA's view that the section 112(f) residual risk authority applicable to sources regulated under section 129 provides a valuable statutory tool for preventing adverse effects from HAP emissions depositing into the Great Waters.

H. Other Comments Regarding the Adequacy of Section 112

1. Summary of the Comments

Several other miscellaneous comments regarding the adequacy of section 112 to prevent adverse effects from HAP deposition were submitted. Some argued that section 112 cannot be adequate in light of the fact that EPA recently signed the Great Lakes Binational Toxics Strategy (Canada/U.S.—April 7, 1997). Similarly, some argued that initiatives such as the Great Lakes Water Quality Guidance indicate that additional legal authorities beyond section 112 are needed to protect public health and the environment. Others commented that while NO_X is not a listed HAP and thus not within the scope of the section 112 regulatory reach of the section 112(m)(6) remedy, there is mounting evidence that NO_X and sulfur dioxide (SO_2), precursors to acid rain, may act synergistically to exacerbate the problems caused by certain HAP, such as mercury by lowering the alkalinity of receiving waters. Since EPA has no authority under section 112 at all to regulate pollutants other than HAP, the commenter argued, and since a comprehensive approach to remedying adverse impacts from deposition of mercury may arguably require additional regulation of NO_X and SO_2 emissions, section 112 cannot be adequate. Another commenter demanded that EPA's action to issue the determinations serve as a vehicle for particular substantive actions, such as reducing ongoing emissions of PCB emitted by utilities and landfills, creating an inventory of pesticide use in the United States, developing a Great Lakes pesticide initiative, and preventing air revolatilization of HAP in implementing the Assessment and Remediation of Contaminated Sediments program. This commenter stated that EPA did not explicitly address whether section 112 is adequate to prevent adverse effects to especially sensitive segments of the populations, such as children, and why, if adequate authority exists, the Agency has allegedly not applied it to eliminate the ''environmental injustice'' of these effects. The commenter noted that fish consumption presents more acute risks for people especially vulnerable to toxics, such as nursing women and unborn children, and then observed that EPA in the first Report to Congress stated that since certain sub-populations such as Native Americans are more likely to consume greater amounts of Great Lakes fish and, therefore, be more exposed to toxic chemicals, their effects need to be considered in decision making on toxic substances control. The commenter asserts that since the draft determinations did not separately or explicitly address environmental justice issues, EPA is in violation of Executive Order 12898, ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.'' Another commenter argued that additional pollutants, particularly dieldrin, a Great Waters pollutant of concern, must be listed as a HAP under section 112(b), due to its effects as discussed in the second report. Since dieldrin is not currently listed, the commenter notes, EPA cannot currently regulate it under section 112 and address its deposition impacts.

2. EPA's Response

The EPA disagrees that the fact that EPA has entered into the Binational Toxics Strategy and other such initiatives demonstrates that section 112 is inadequate to prevent adverse effects

from HAP deposition of domestic stationary source emissions. The EPA has never in any such action insinuated that its underlying statutory authority to control emissions from these sources is wanting, and there is no basis for concluding that EPA's determinations regarding the adequacy of section 112 are in conflict with the Agency's participation in these initiatives. On the contrary, EPA has used and will continue to use its authority under section 112 to further the goals of strategies such as the Binational Toxics Strategy. The EPA also disagrees that the exacerbating effects NO_X and SO_2 may have on HAP deposition impacts compels an inadequacy determination. The EPA can still use its section 112 authority to address the HAP emission component of such impacts, and while unlisted pollutants such as SO_2 and NO_X may not be regulated under section 112, there are ongoing efforts under the Clean Air Act to control non-HAP emissions. The EPA referred to this authority in the draft determination partly in order to highlight the fact that while certain pollutants cannot be controlled under section 112, that does not automatically render section 112 inadequate to control emissions of pollutants that are HAP. The EPA sees no restriction in section 112 that would preclude the Agency from preventing impacts caused by HAP that are enhanced by the presence of other pollutants. The comments that request EPA to take particular actions are not directly relevant to the question of whether the other provisions of section 112 are adequate to prevent adverse effects from HAP deposition. Moreover, charges that EPA has failed to comply with Executive Order 12898 because the draft determination did not explicitly discuss effects on particularly sensitive segments of the population do not recognize that EPA stated it believes that section 112 is adequate to prevent any of the enumerated adverse effects from HAP deposition. This necessarily includes qualifying adverse effects that are experienced by sensitive population segments, such as children and nursing mothers, and those experienced by segments of the population that experience greater exposure to environmental toxics, such as Native Americans. The EPA's assessment of its legal authority under section 112 was not limited to whether the Agency can act to prevent adverse effects experienced only by a ''majority'' of citizens. Indeed, the definition of adverse environmental effect in section 112(a)(7), and the relevant provisions of section 112(f)(2) directing EPA to protect the public health with an ample margin of safety, are in no way so limiting. Finally, EPA notes that the Executive Order applies to EPA's implementation of section 112 and to the regulatory actions EPA takes under its provisions, thus ensuring that environmental justice issues will be taken into consideration as the various section 112 programs are developed. In response to the request that dieldrin be listed as a HAP, EPA notes that interested citizens may petition the Agency to add substances to the section 112(b) HAP list, and the commenter is welcome to do so. Today's notice would not be a proper forum for conducting this rulemaking exercise.

I. Comments Regarding the Need for Further Regulations under Section 112(m)(6)

Many comments objected to EPA's draft determination that, since EPA believes the other provisions of section 112 are adequate, no further regulations under section 112(m)(6), beyond those that can otherwise be adopted under section 112, are necessary and appropriate at this time. These objections flow from the objections to the draft adequacy determination. In addition, several comments were submitted concerning the issue of the need for further regulations under section 112(m)(6), notwithstanding the issue of the adequacy of section 112.

1. Summary of the Comments

An environmental group specifically objected to EPA's statement that even if section 112 were found to be inadequate under section 112(m)(6), further regulations under that subsection are not necessary and appropriate at this time in light of the fact that much scientific information is still lacking concerning issues such as the relative contribution of air emissions of HAP to adverse effects in the Great Waters. The commenter argued that the Agency's Report to Congress under the Great Waters program, as well as information gathered in support of EPA's actions implementing section 112, show the need to act under section 112(m)(6) and indicate which sources are responsible for adverse impacts. Moreover, the commenter argued that EPA should have set forth data and analysis in support of its draft determination that further regulations under section 112 are not necessary and appropriate at this time. The commenter claimed that EPA has failed to fulfill its duties under administrative law to provide the public with sufficient information upon which to comment meaningfully.

On the other hand, industry commenters interpreted the second report as indicating that the science does not yet exist to connect air deposition of HAP to actual environmental or public health effects, or to connect air deposition of HAP to individual facilities. As a result, they argued, EPA does not have an adequate technical basis for imposing further regulations under section 112(m)(6) to address HAP deposition. In addition, they argued, since water quality in the Great Waters is improving, further measures under section 112(m)(6) are not needed. They also argued that current data are limited and unclear, and that there is too much uncertainty regarding several scientific issues for EPA to be able to support further regulations.

2. EPA's Response

Since EPA is determining that the other provisions of section 112 are adequate under section 112(m)(6), it therefore follows that further regulations under section 112(m)(6), beyond those that can otherwise be adopted under section 112, are not necessary and appropriate. However, EPA does wish to respond to the points raised above in order to clear up any confusion caused by the Agency's statement in the draft determinations. In response to comments concerning the factual basis for today's determinations, EPA's statement should not be interpreted as meaning that EPA concludes that adverse effects associated with HAP deposition are not presently occurring or that further research and action is not necessary. In fact, EPA believes that the first and second reports clearly indicate that atmospheric deposition of toxic and other pollutants is often an important factor affecting the environmental conditions of the Great Waters and can contribute to adverse ecological and human health effects. As the industry groups observed, water quality does appear to be generally improving. However, the rate of improvement in recent years is declining, and therefore EPA's continued implementation of its section 112 authorities is necessary to ensure continued improvements in water quality.

While EPA believes that it has sufficient authority under section 112, it is true that EPA's technical information base is such that the Agency is not presently in a position to conclude confidently that further, unique regulations under section 112(m)(6), beyond those that can be adopted under the other provisions of section 112, would be appropriate. The EPA is not presently able to determine what

additional types of regulations beyond those authorized by section 112, and what domestic stationary sources they would apply to, would be necessary and appropriate to prevent adverse effects from HAP deposition. The EPA's understanding of these issues is, however, improving. For example, in recent years, considerable progress has been made in quantifying emission inventories, monitoring concentrations in ambient air and deposition, and modeling total atmospheric deposition to a waterbody. Studies are improving the ability to relate deposition to source categories, and these techniques are being refined in order to better link effects to individual sources of pollution. Examinations are under way for the total picture relating HAP to a single waterbody (e.g., air deposition, waterborne and sediment inputs, comparing current sources, historic deposits, and natural sources, and tracking cycling among components of the system). Such examinations are expected to contribute to EPA's ability to obtain more focused information on the impacts of individual sources. The EPA is currently drafting the Report to Congress, under section 112(f)(1), on the methods and significance of risks to public health and the environment which may remain after application of standards to sources subject to regulation under section 112(d). As these risk evaluations are developed, they can be applied to sources and pollutants to determine the appropriate additional actions that may be needed.

The EPA's air, water, solid waste, pesticides, and research offices, working with State agencies, universities and others are moving forward on several fronts to better characterize multimedia movements and effects of pollutants. Several projects are under way and will produce data-sets and analyses within the next 1 to 6 years. An extensive emissions inventory of individual sources which release air toxics is nearing completion in the eight Great Lakes States and the Province of Ontario and is expected to be publicly available in the summer of 1998. The USA and Canada cooperative monitoring network for air quality around the Great Lakes is completing its review of the first 6 years and is defining an active program for the next 6 years. The Lake Michigan Mass Balance project has obtained several years of air-monitoring data, which are expected to be released this year, and has begun using advanced computer models of air, water, watershed, sediment, and biota to characterize movements and fates of four selected pollutants in the ecosystem. Large scale modeling to calculate ''airsheds'' where emissions significantly impact each estuary has begun for the Atlantic and Gulf of Mexico estuaries. A 6-year study of ''urban plumes'' in Lake Michigan and Chesapeake Bay is just being completed to quantitatively evaluate the impacts of cities on nearby large water bodies via air transport. Research projects are under way to improve scientific understanding of air and water exchanges of pollutant metals and organic compounds at the air-water boundary.

Finally, in response to the criticism that the draft determination did not provide sufficient opportunity for meaningful public comment, thereby allegedly causing the Agency to fail to meet its responsibilities under administrative law, the Agency was not required by the Administrative Procedure Act (APA) or by section 307(d) of the Act to make these determinations through a notice and comment process, and these determinations are not rulemakings that establish new binding requirements. The EPA could have made the determinations unilaterally and without public input in its Report to Congress, but chose instead to invite public participation by first issuing the determinations in draft and then supplementing the report with today's notice. The EPA provided a full opportunity for review and comment on the draft determinations at the time EPA released the second Report to Congress. Moreover, having done so does not make the APA and provisions of the Act regarding procedural requirements or judicial review applicable to the determinations or to other aspects of the second report. In any event, EPA believes that the factual bases for EPA's conclusion that it is not at this time necessary and appropriate to establish further regulations under section 112(m)(6) are fully presented in the report itself.

J. Comments Regarding the Second Report to Congress

The EPA received numerous comments addressing aspects of the second report apart from the section 112(m)(6) draft determinations. Many of these related to specific technical or scientific issues, or to the Agency's method of addressing the elements of section 112(m)(5). Since today's notice concerns only the determinations under section 112(m)(6), it has focused on the points raised in comments regarding the draft determinations discussed in the July 7, 1997, notice. While today's notice of determinations supplements the second report, the Agency is not otherwise using this notice to update or revise the second report. Rather, the methods for achieving these purposes are the periodic reports themselves, and EPA will be considering public comments submitted on its second report in the third report due in June 1999. However, EPA does summarize some of the comments received on the second report in the Response to Comments Document contained in the docket for today's notice and presents some preliminary responses.

V. Determinations of Adequacy of Section 112 and of Need for Further Regulations Under Section 112(m)(6)

Based on available information, the analyses contained in the first and second Reports to Congress and the draft determinations published at 62 FR 36436 (July 7, 1997), and guided by EPA's interpretation of the statutory requirements of section 112(m) of the Act, EPA determines that the other provisions of section 112 are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects associated with the deposition of HAP to the Great Waters. As a result of this determination, EPA determines that, based on information available to the Agency, no further emission standards or control measures under section 112(m)(6), beyond those that can otherwise be adopted under the other provisions of section 112, are necessary and appropriate to prevent such effects. Due to the state of current scientific information concerning factors such as the relative contribution of air emissions to adverse effects in the Great Waters, as discussed in the first and second Reports to Congress, EPA could not conclude confidently that unique further regulatory actions to reduce HAP under the remedial authority of section 112(m)(6) would be necessary and appropriate. As discussed earlier in this notice, this does not mean that actions under the other provisions of section 112 or other authorities that reduce any impacts from deposition of air pollution are not warranted, or that EPA is concluding that air deposition of HAP does not currently cause or contribute to adverse effects to public health or the environment. If future events or additional information indicate that the determinations are not correct, EPA retains its discretion to promulgate any necessary and appropriate regulations under section 112(m)(6).

VI. Administrative Procedures

A. Executive Order 12866

Executive Order 12866 (58 FR 51735, October 4, 1993) requires agencies to determine whether regulatory actions are ''significant'' and therefore subject to Office of Management and Budget (OMB) review. It has been determined that today's notice of determinations is not a ''significant'' regulatory action, since it does not establish new requirements or lead to likely regulatory requirements (and therefore is not a regulatory action) and is a supplement to the second Report to Congress under the Great Waters program. A draft of this notice was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Regulatory Flexibility

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with these determinations since they are not rules of general applicability for which EPA is required to publish a notice of proposed rulemaking under the Administrative Procedure Act or any other statute. Moreover, these determinations that section 112 is adequate to prevent adverse effects from HAP deposition and that, therefore, no further regulations under section 112(m)(6) are necessary and appropriate, could not by their nature impose any direct or binding requirements on any person, and, therefore, could not impose any economic impacts on the regulated community or small entities.

C. Congressional Review

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, does not apply because this action is not a rule, as that term is defined in 5 U.S.C. 804(3). Today's notice serves as a supplement to EPA's second Report to Congress under the Great Waters program and does not establish any binding rules of general applicability. Pursuant to the consent decree entered in *Sierra Club* v. *Browner*, Civ. No. 96–1680 (D.D.C.), EPA shall deliver to Congress a copy of the notice as a supplement to the second Report.

D. Unfunded Mandates

Today's determinations establish no Federal mandates. That is, they impose no enforceable duties on State, local or tribal governments, or on the private sector, since they do not establish binding regulations. Therefore, the requirements of the Unfunded Mandates Reform Act of 1995 do not apply to today's notice.

Dated: March 13, 1998.

Carol M. Browner,

Administrator.

[FR Doc. 98–7488 Filed 3–23–98; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

Department of Agriculture

[FRL–5985–6]

Clean Water Act; Clean Water Action Plan

AGENCY: Environmental Protection Agency and Department of Agriculture.

ACTION: Notice of availability of clean water action plan.

SUMMARY: In his 1998 State of the Union Address, President Clinton announced a major new Clean Water Initiative to speed the restoration of the nation's rivers, lakes, and coastal waters. This new initiative aims to achieve clean water by strengthening public health protection, targeting community-based watershed protection efforts at high priority areas, and providing communities with new resources to control polluted runoff.

On October 18, 1997, the 25th anniversary of the Clean Water Act, Vice President Gore directed the Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) to work with other Federal agencies and the public to prepare an aggressive Action Plan to meet the promise of clean, safe water for all Americans. The Action Plan forms the core of President Clinton's Clean Water Initiative in which he proposed $568 million in new resources in his Fiscal Year 1999 budget to carry it out. The Action Plan builds on the solid foundation of existing clean water programs and proposes new actions to strengthen efforts to restore and protect water resources.

In implementing the Action Plan, the federal government will: support locally led partnerships that include a broad array of watershed partners, including federal and state agencies, tribes, communities, businesses, and citizens to meet clean water and public health goals; increase financial and technical assistance to states, tribes, local governments, farmers, and others; and help states and tribes restore and sustain the health of aquatic systems on a watershed basis.

ADDRESSES: The Clean Water Action Plan is available for viewing on the Internet at

http://www.nhq.nrcs.usda.gov/cleanwater/ or

http://www.epa.gov/cleanwater/.

Copies of the Clean Water Action Plan may be obtained from EPA's National Center for Environmental Publications and Information, 1–800–490–9198 (toll free), P.O. Box 42419, Cincinnati, OH 45242; (513) 489–8695 (fax). Ask for EPA–840–R–98–001. Copies may also be obtained from Douglas Wilson, USDA–NRCS, Conservation Communications Staff, Room 0054—South Building, P.O. Box 2890, Washington, D.C. 20013–2890, or by fax at (202) 720–6009.

FOR FURTHER INFORMATION CONTACT: Ben Ficks, U.S. EPA, Office of Wetlands, Oceans, and Watersheds, 401 M Street, S.W. (4501F), Washington, D.C. 20460; fax: 202–260–2529; email ficks.ben@epamail.epa.gov; or Douglas Wilson, USDA–NRCS Conservation Communications Staff, Room 0054—South Building P.O. Box 2890, Washington, D.C. 20013–2890; fax: 202–720–6009.

SUPPLEMENTARY INFORMATION:

Clean Water Action Plan Overview

I. Clean Water—The Road Ahead

Over the past quarter century, America has made tremendous strides in cleaning up its rivers, lakes, and coastal waters. In 1972, the Potomac River was too dirty to swim in, Lake Erie was dying, and the Cuyahoga River was so polluted it burst into flames. Many rivers and beaches were little more than open sewers. The improvement in the health of the nation's waters is a direct result of a concerted effort to enhance stewardship of natural resources and to implement the environmental provisions of federal, state, tribal and local laws. In particular, the Clean Water Act has stopped billions of pounds of pollution from fouling the nation's water, doubling the number of waterways safe for fishing and swimming. Today, rivers, lakes, and coasts are thriving centers of healthy communities.

Despite tremendous progress, 40 percent of the nation's waterways assessed by states are still unsafe for fishing and swimming. Pollution from factories and sewage treatment plants, soil erosion, and wetland losses have been dramatically reduced. But runoff from city streets, rural areas, and other sources continues to degrade the environment and puts drinking water at risk. Fish in many waters still contain dangerous levels of mercury,