6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R02-OAR-2012-0457, FRL-9691-4]

Approval and Promulgation of Air Quality Implementation Plans; United States Virgin Islands; Regional Haze Federal Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to promulgate a Federal Implementation Plan (the Plan) to address regional haze in the Territory of the United States Virgin Islands. EPA proposes to determine that the Plan meets the requirements of the Clean Air Act and EPA's rules concerning reasonable progress towards the national goal of preventing any future and remedying any existing man-made impairment of visibility in mandatory Class I areas (also referred to as the "regional haze program"). The proposed Plan protects and improves visibility levels in the Virgin Islands Class I area, namely the Virgin Islands National Park on the island of St. John. The Plan for the Virgin Islands will address Reasonable Progress toward improving visibility and evaluation of Best Available Retrofit Control Technology. The reader is referred to the Regional Haze Virgin Islands Federal Implementation Plan found in the Docket for this action, which contains a complete description of all of the elements to address regional haze. EPA is taking comments on this proposal and plans to follow with a final action.

DATES: *Comments:* Comments must be received on or before August 24, 2012.

Public Hearing: If you wish to request a hearing and present testimony, you should notify Mr. Geoffrey Garrison on or before July 6, 2012, and indicate the nature of the issues you wish to provide oral testimony during the hearing. Mr. Garrison's contact information is found in FOR FURTHER INFORMATION CONTACT.

Oral testimony will be limited to 5 minutes per person. The hearing will be strictly limited to the subject matter of this proposal, the scope of which is discussed below. EPA will not respond to comments during the public hearing. EPA will not be providing equipment for commenters to show overhead slides or make computerized slide presentations. A verbatim transcript of the hearing and written statements will be made available for copying during normal working hours at the address listed for inspection of documents, and also included in the Docket. Any member of the public may file a written statement by the close of the comment period. Written statements (duplicate copies preferred) should be submitted to Docket Number EPA-R2-OAR-2012-0457, at the address listed for submitting comments. Note that any written comments and supporting information submitted during the comment period will be considered with the same weight as any oral comments presented at the public hearing. If no requests for a public hearing are received by close of business on July 6, 2012, a hearing will not be held; please contact Mr. Garrison to find out if the hearing will actually be held or will be cancelled for lack of any request to speak.

ADDRESSES: *Public Hearing:* A public hearing, if requested, will be held at Virgin Islands Department of Planning and Natural Resources, St. Thomas Office, Cyril E. King Airport, Terminal Building, St. Thomas, VI, 00802, on July 17, 2012, beginning at 6:00 p.m.

Comments: Submit your comments, identified by Docket Number EPA-R02-OAR-2012-0457, by one of the following methods:

- www.regulations.gov: Follow the on-line instructions for submitting comments.
- Email: Werner.Raymond@epa.gov
- Fax: 212-637-3901
- Mail: Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007-1866.
- Hand Delivery: Raymond Werner, Chief, Air Programs Branch, Environmental Protection Agency, Region 2 Office, 290 Broadway, 25th Floor, New York, New York 10007-1866. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding Federal holidays. Hand Delivery of comments will also be accepted by Mr. Jim Casey, Virgin Islands Coordinator, Environmental Protection Agency, Region 2 Virgin Islands Field Office, Tunick Building, Suite 102, 1336 Beltjen Road, St. Thomas, VI, 00801, 340-714-2333.

Instructions: Direct your comments to Docket Number ***EPA-R02-OAR-2012-0457.*** EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know

your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters or any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at http://www.epa.gov/air/docket.html .

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in http://www.regulations.gov or in hard copy at:

- Environmental Protection Agency, Region 2 Office, Air Programs Branch, 290 Broadway, 25th Floor, New York, New York 10007-1866
- Environmental Protection Agency, Region 2 Virgin Islands Field Office, Tunick Building, Suite 102, 1336 Beltjen Road, St. Thomas, VI, 00801
- Environmental Protection Agency, Region 2, St. Croix Public Affairs Office, 4200 Estate St. John #4237, Christiansted, VI 00820.

EPA requests, if at all possible, that you contact the individual listed in the FOR FURTHER INFORMATION CONTACT section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8 a.m. to 4 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT:

- Robert F. Kelly, State Implementation Planning Section, Air Programs Branch, EPA Region 2, 290 Broadway, New York, New York 10007-1866. The telephone number is (212) 637-4249. Mr. Kelly can also be reached via electronic mail at kelly.bob@epa.gov.
- Geoffrey M. Garrison, Community Involvement Coordinator, Public Affairs Division, U.S. EPA Region 2, St. Croix, U.S. Virgin Islands, BB: 340-201-5328, E-mail: garrison.geoffrey@epa.gov.
- Jim Casey, Virgin Islands Coordinator, Environmental Protection Agency, Region 2 Virgin Islands Field Office, Tunick Building, Suite 102, 1336 Beltjen Road, St. Thomas, VI, 00801, 340-714-2333, E-mail: casey.jim@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document, wherever "Agency," "we," "us," or "our" is used, we mean the EPA. In most cases in this document, where we use the term "state" when discussing requirements or recommendations under the Clean Air Act or Agency guidance, this includes the Territory of the Virgin Islands.

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I. What Action is EPA Proposing?

EPA is proposing a plan to address regional haze in the Virgin Islands under the Clean Air Act (CAA or the Act) sections 301(a) and 110(k)(3). EPA proposes a Federal Implementation Plan (FIP) which includes measures that will reduce emissions that contribute to regional haze in the Virgin Islands and make progress toward the Reasonable Progress Goal (RPG) for 2018, as determined by EPA. RPGs are interim visibility goals towards meeting the Act's national visibility goal of no man-made contribution to visibility reduction. In addition, EPA proposes Best Available Retrofit Technology (BART) control determinations for sources in the Virgin Islands that may be subject to BART. This proposed action and the accompanying FIP documents that are available in the Docket explain the basis for EPA's proposed actions on the Virgin Islands Regional Haze FIP.

EPA's Authority to Promulgate a FIP

The Act requires each state to develop plans to meet various air quality requirements, including protection of visibility. (CAA sections 110(a), 169A, and 169B). The plans developed by a state or Territory are referred to as State Implementation Plans or SIPs. A state must submit its SIPs and SIP revisions to us for approval. Once approved, a SIP is federally enforceable, that is enforceable by EPA and citizens under the Act. If a state fails to make a required SIP submittal or if we find that a state's required submittal is incomplete or unapprovable, then we must promulgate a FIP to fill this regulatory gap. (CAA section 110(c)(1)).

EPA made a finding of failure to submit on January 15, 2009 (74 FR 2392), determining that the U.S. Virgin Islands failed to submit a SIP that addressed any of the required regional haze SIP elements of 40 CFR 51.308. Under section 110(c) of the Act, whenever we find that a state has failed to make a required submission we are required to promulgate a FIP. Specifically, section 110(c) provides:

> (1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator--
>
> (A) finds that a state has failed to make a required submission or finds that the plan or plan revision submitted by the state does not satisfy the minimum criteria established under [section 110(k)(1)(A)], or
>
> (B) disapproves a state implementation plan submission in whole or in part, unless the state corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.

Section 302(y) defines the term "Federal implementation plan" in pertinent part, as:

> [A] plan (or portion thereof) promulgated by the Administrator to fill all or a portion of a gap or otherwise correct all or a portion of an inadequacy in a State implementation plan, and which includes enforceable emission limitations or other control measures, means or techniques (including economic incentives, such as marketable permits or auctions or emissions allowances) * * *.

Thus, because we determined that the Virgin Islands failed to submit a Regional Haze SIP, we are required to promulgate a Regional Haze FIP.

II. What is the Background for EPA's Proposed Action?

Regional haze is visibility impairment that is produced by many sources and activities which are located across a broad geographic area and emit fine particles and their precursors (e.g., sulfur dioxide, nitrogen oxides, and in some cases, ammonia and volatile organic compounds). Fine particle precursors react in the atmosphere to form fine particulate matter ($PM_{2.5}$) (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust), which also impairs visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see. Visibility impairment caused by air pollution occurs virtually all the time at most national parks and wilderness areas, many of which are also referred to as Federal Class I areas. (CAA section 162(a)).

In the 1977 Amendments to the CAA, Congress initiated a program for protecting visibility in the nation's national parks and wilderness areas. Section 169A(a)(1) of the Act establishes as a national goal the "prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution." In 1990 Congress added section 169B to the Act to address regional haze issues. On July 1, 1999, EPA promulgated the Regional Haze Rule (RHR) (64 FR 35714, July 1, 1999). The requirement to submit a Regional Haze SIP applies to all 50 states, the District of Columbia and the Virgin Islands. 40 CFR 51.308(b) of the RHR required states to submit the first implementation plan addressing regional haze visibility impairment no later than December 17, 2007.

On January 15, 2009, EPA issued a finding that the Virgin Islands had failed to submit the Regional Haze SIP (74 FR 2392, January 15, 2009). EPA's January 15, 2009 finding established a two-year deadline of January 15, 2011 for EPA to either approve a Regional Haze SIP for the Virgin Islands, or adopt a FIP. This proposed action is intended to address the January 15, 2009 finding. EPA continues to work with the Virgin Islands Government to develop a State Implementation Plan for Regional Haze.

Because the pollutants that lead to regional haze can originate from sources located across broad geographic areas, EPA has encouraged the states and tribes across the United States to address visibility impairment from a regional perspective. Five regional planning organizations (RPOs) were developed to address regional haze and related issues. The Virgin Islands National Park is

sufficiently far from the continental United States, therefore there was no need for the Virgin Islands government to participate in any of these RPOs.

III. What Are the Requirements for Regional Haze SIPs?

The following is a basic explanation of the RHR. See 40 CFR 51.308 for a complete listing of the regulations under which this FIP was developed.

A. The Act and the Regional Haze Rule (RHR)

Regional haze SIPs must assure reasonable progress towards the national goal of achieving natural visibility conditions in Class I areas. Section 169A of the Act and EPA's implementing regulations require states to establish long-term strategies for making reasonable progress toward meeting this goal. Implementation plans must also give specific attention to certain stationary sources that were in existence on August 7, 1977, but were not in operation before August 7, 1962, and require these sources, where appropriate, to install BART controls for the purpose of eliminating or reducing visibility impairment. The specific regional haze SIP requirements are discussed in further detail below.

B. Determination of Baseline, Natural, and Current Visibility Conditions

The RHR establishes the deciview or "dv" as the principal metric for measuring visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Visibility is determined by measuring the visual range, which is the greatest distance, in kilometers or miles, at which a dark object can be viewed against the sky. The dv is calculated from visibility

measurements. Each dv change is an equal incremental change in visibility perceived by the human eye. For this reason, EPA believes it is a useful measure for tracking progress in improving visibility. Most people can detect a change in visibility at one dv. The preamble to the RHR provides additional details about the deciview (64 FR 35725, July 1, 1999).

The dv is used in expressing RPGs (which are interim visibility goals towards meeting the national visibility goal), defining baseline, current, and natural conditions, and tracking changes in visibility. The regional haze SIPs must contain measures that ensure "reasonable progress" toward the national goal of preventing and remedying visibility impairment in Class I areas caused by manmade air pollution by reducing anthropogenic emissions that cause regional haze. The national goal is a return to natural conditions, i.e., manmade sources of air pollution would no longer impair visibility in Class I areas.

To track changes in visibility over time at each of the 156 Class I areas covered by the visibility program (40 CFR 81.401-437) and as part of the process for determining reasonable progress, the RHR requires states to calculate the degree of existing visibility impairment at each Class I area at the time of each regional haze SIP submittal and review progress midway through each 10-year planning period. To do this, the RHR requires states to determine the degree of impairment (in dv) for the average of the 20 percent least impaired ("best") and 20 percent most impaired ("worst") visibility days over a specified time period at each of their Class I areas. In addition, the RHR requires states to develop an estimate of natural visibility conditions for the purposes of comparing progress toward the national goal. Natural visibility is determined by estimating the natural concentrations of pollutants that cause visibility impairment and then calculating total

light extinction based on those estimates. EPA has provided guidance to states regarding how to calculate baseline, natural and current visibility conditions.[1]

For the initial regional haze SIPs that were due by December 17, 2007, baseline visibility conditions were used as the starting points for assessing current visibility impairment. Baseline visibility conditions represent the degree of impairment for the 20 percent least impaired days and 20 percent most impaired days at the time the regional haze program was established. Using monitoring data for 2000 through 2004, the RHR required states to calculate the average degree of visibility impairment for each Class I area, based on the average of annual values over the five year period. The comparison of initial baseline visibility conditions to natural visibility conditions indicates the amount of improvement necessary to attain natural visibility, while the future comparison of baseline conditions to the then current conditions will indicate the amount of progress made. In general, the 2000 - 2004 baseline period is considered the time from which improvement in visibility is measured.

C. Determination of Reasonable Progress Goals (RPGs)

The submission of a series of regional haze SIPs from the states that establish RPGs for Class I areas for each (approximately) 10-year planning period is the vehicle for ensuring continuing progress towards achieving the natural visibility goal. The RHR does not mandate specific milestones or rates of progress, but instead calls for states to establish goals that provide for

[1] *Guidance for Estimating Natural Visibility conditions under the Regional Haze Rule*, September 2003, (EPA-454/B-03-005 located at http://www.epa.gov/ttncaaa1/t1/memoranda/rh_envcurhr_gd.pdf), (hereinafter referred to as "EPA's 2003 Natural Visibility Guidance"), and *Guidance for Tracking Progress Under the Regional Haze Rule* (EPA-454/B-03-004 September 2003 at http://www.epa.gov/ttncaaa1/t1/memoranda/rh_tpurhr_gd.pdf)), (hereinafter referred to as "EPA's 2003 Tracking Progress Guidance").

"reasonable progress" toward achieving natural (i.e., "background") visibility conditions. In setting RPGs, states must provide for an improvement in visibility for the most impaired days over the (approximately) 10-year period of the SIP, and ensure no degradation in visibility for the least impaired days over the same period.

States, and in this case, the Virgin Islands government, have significant discretion in establishing RPGs, but are required to consider the following factors established in the Act and in EPA's RHR: (1) the costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources. States must demonstrate in their SIPs how these factors are considered when selecting the RPGs for the best and worst days for each applicable Class I area. (See 40 CFR 51.308(d)(1)(i)(A)). States have considerable flexibility in how they take these factors into consideration, as noted in our Reasonable Progress guidance.[2] In setting the RPGs, states must also consider the rate of progress needed to reach natural visibility conditions by 2064 (referred to as the "uniform rate of progress" or the "glidepath") and the emission reduction measures needed to achieve that rate of progress over the 10-year period of the SIP. In setting RPGs, each state with one or more Class I areas ("Class I State") must also consult with potentially "contributing states," i.e., other nearby states with emission sources that may be affecting visibility impairment at the Class I State's areas. (40 CFR 51.308(d)(1)(iv)).

[2] *Guidance for Setting Reasonable Progress Goals under the Regional Haze Program,* ("EPA's Reasonable Progress Guidance"), July 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, EPA Regions 1-10 (pp.4-2, 5-1).

D. Best Available Retrofit Control Technology (BART)

Section 169A of the Act directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, the Act requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal, including a requirement that certain categories of existing stationary sources[3] built between 1962 and 1977 procure, install, and operate the "Best Available Retrofit Control Technology" as determined by the state. (CAA 169A(b)(2)(A)). States are directed to conduct BART determinations for such sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area. Rather than requiring source-specific BART controls, states also have the flexibility to adopt an emissions trading program or other alternative program as long as the alternative provides equal or greater reasonable progress towards improving visibility than BART.

On July 6, 2005, EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* at 40 CFR part 51, Appendix Y (hereinafter referred to as the "BART Guidelines") to assist states in determining which of their sources should be subject to the BART requirements and in determining appropriate emission limits for each applicable source. The BART Guidelines require states to use the approach set forth in the BART Guidelines in making a BART applicability determination for a fossil fuel-fired electric generating plant with a total generating capacity in excess of 750 megawatts. The BART Guidelines encourage, but do not require states to follow the BART Guidelines in making BART determinations for other types of sources.

[3] The set of "major stationary sources" potentially subject to BART are listed in CAA section 169A(g)(7).

The BART Guidelines recommend that states address all visibility impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are sulfur dioxide (SO_2), nitrogen oxides (NO_x), and PM. The BART Guidelines direct states to use their best judgment in determining whether volatile organic compounds (VOCs), or ammonia (NH_3) and ammonia compounds impair visibility in Class I areas.

In their SIPs, states must identify potential BART sources, described as "BART-eligible sources" in the RHR, and document their BART control determination analyses. In making BART determinations, section 169A(g)(2) of the Act requires that states consider the following factors: (1) the costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any existing pollution control technology in use at the source, (4) the remaining useful life of the source, and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. States are free to determine the weight and significance to be assigned to each factor. (70 FR 39170, July 6, 2005).

A regional haze SIP must include source-specific BART emission limits and compliance schedules for each source subject to BART. Once a state has made its BART determination, the BART controls must be installed and in operation as expeditiously as practicable, but no later than five years after the date of EPA approval of the regional haze SIP, as required by the Act (section 169A(g)(4)) and by the RHR (40 CFR 51.308(e)(1)(iv)). In addition to what is required by the RHR, general SIP requirements mandate that the SIP must also include all regulatory requirements related to monitoring, recordkeeping, and reporting for the BART controls on the

source. States have the flexibility to choose the type of control measures they will use to meet the requirements of BART.

E. Long-Term Strategy (LTS)

Consistent with the requirement in section 169A(b) of the Act, that states include in their regional haze SIP a 10 to 15 year strategy for making reasonable progress, section 51.308(d)(3) of the RHR requires that states include a Long-Term Strategy (LTS) in their SIPs. The LTS is the compilation of all control measures a state will use to meet any applicable RPGs. The LTS must include "enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals" for all Class I areas within, or affected by emissions from, the state. (40 CFR 51.308(d)(3)).

When a state's emissions are reasonably anticipated to cause or contribute to visibility impairment in a Class I area located in another state, the RHR requires the impacted state to coordinate with the contributing states in order to develop coordinated emissions management strategies. (40 CFR 51.308(d)(3)(i)). Since sources in the Virgin Islands do not affect visibility in any other states' Class I areas, this particular LTS requirement does not apply.

States should consider all types of anthropogenic sources of visibility impairment in developing their LTS, including stationary, minor, mobile, and area sources. At a minimum, states must describe how each of the seven factors listed below is taken into account in developing their LTS: (1) emission reductions due to ongoing air pollution control programs, including measures to address Reasonably Attributable Visibility Impairment (RAVI); (2) measures to mitigate the

impacts of construction activities; (3) emissions limitations and schedules for compliance to achieve the RPG; (4) source retirement and replacement schedules; (5) smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the state for these purposes; (6) enforceability of emissions limitations and control measures; (7) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the LTS. (40 CFR 51.308(d)(3)(v)).

F. Coordinating Regional Haze and Reasonably Attributable Visibility Impairment (RAVI)

As part of the RHR, EPA revised 40 CFR 51.306(c) regarding the LTS for states with Class I areas to require that the RAVI plan must provide for a periodic review and SIP revision not less frequently than every three years until the date of submission of the state's first plan addressing regional haze visibility impairment, which was due December 17, 2007, in accordance with 51.308(b) and (c). On or before this date, the state must revise its plan to provide for review and revision of a coordinated LTS for addressing reasonably attributable and regional haze visibility impairment, and the state must submit the first such coordinated LTS with its first regional haze SIP revision. Future coordinated LTSs, and periodic progress reports evaluating progress towards RPGs, must be submitted consistent with the schedule for SIP submission and periodic progress reports set forth in 40 CFR 51.308(f) and 51.308(g), respectively. The periodic reviews of a state's LTS must report on both regional haze and RAVI impairment and must be submitted to EPA as a SIP revision, in accordance with 40 CFR 51.308.

G. Monitoring Strategy and Other Implementation Plan Requirements

If a state has a Class I Federal Area in the state, the requirements in section 51.308(d)(4) of the RHR must be met. These requirements include a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the state and this strategy must be coordinated with the monitoring strategy required in section 51.305 for RAVI. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environment (IMPROVE) network. The monitoring strategy is due with the first regional haze SIP, and it must be reviewed every five years. Note that section 51.308(d)(4) contains a list of additional items the implementation plan must address.

H. Consultation with States and Federal Land Managers (FLMs)

The RHR requires that states consult with FLMs before adopting and submitting their SIPs. (40 CFR 51.308(i)). States must provide FLMs an opportunity for consultation, in person and at least 60 days prior to holding any public hearing on the SIP. This consultation must include the opportunity for the FLMs to discuss their assessment of impairment of visibility in any Class I area and to offer recommendations on the development of the RPGs and on the development and implementation of strategies to address visibility impairment. Further, a state must include in its SIP a description of how it addressed any comments provided by the FLMs. Finally, a SIP must provide procedures for continuing consultation between the state and FLMs regarding the state's visibility protection program, including development and review of SIP revisions, five-year

progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas.

IV. What is the Proposed Implementation Plan to Address Regional Haze in the Virgin Islands?

A. Affected Class I Areas

In accordance with 40 CFR 51.308(d), we have indentified one Class I area in the Territory of the Virgin Islands: the Virgin Islands National Park, where the FLM – the National Park Service – has identified visual impairment as an important value that must be addressed in regional haze plans. Thus, the Virgin Islands, and in this case, EPA consulting with the Government of the Territory of the Virgin Islands, must develop a Regional Haze Plan that addresses the causes of visibility impairment in the Class I area, that describes the long-term emission strategy, the consultation processes, and other requirements in EPA's regional haze regulations. Because the Virgin Islands are home to a Class I area, we will address the following Regional Haze Plan elements: a) calculation of baseline and natural visibility conditions, b) establishment of RPGs, c) monitoring requirements, and d) RAVI requirements as required by EPA's RHR. These elements will constitute a FIP, developed in consultation with the FLM and the involvement of the Virgin Islands Government and its environmental agency, the Virgin Islands Department of Planning and Natural Resources (VIDPNR).

1. Relative Contributions of Pollutants to Visibility Impairment

An important step toward identifying reasonable progress measures is to identify the key pollutants contributing to visibility impairment at each Class I area. To understand the relative

benefit of further reducing emissions from different pollutants, EPA evaluated data from the IMPROVE air quality station, located in the Virgin Islands National Park near Cruz Bay, on the western end of the island of St. John. On the days with the worst visibility, the following table lists the particulate species that contribute to reduced visibility.

Table 1: Visibility Reduction from Particulates on the Worst 20% of Days in 2004

Coarse Particulates	17.6 Mm-1	36.4%
Sea Salt	9.88 Mm-1	20.5%
Sulfates	9.29 Mm-1	19.2%
Fine Soil	6.68 Mm-1	13.8%
Nitrates	2.59 Mm-1	5.4%
Elemental Carbon	1.40 Mm-1	2.9%
Organic Carbon	0.90 Mm-1	1.9%

Megameters^{-1} (Mm^{-1}) are a unit of visibility impairment. Larger values are greater amounts of interference with visibility.

The size of particulates from Saharan Dust range from 2 to 5 microns, so Saharan Dust is a major contributor to both fine (less than 2.5 microns) soil and coarse matter (greater than 2.5 microns). As shown in research studies and ongoing satellite data, Saharan Dust is transported in large quantities across the Atlantic Ocean and mixed in the surface air where it reduces visibility. This effect is most often seen, and recorded in particulate samples from the IMPROVE monitor, in the early summer months as tropical waves move from Africa across the Atlantic Ocean to the Caribbean Sea and beyond. Since fine soil in the air is often largely Saharan Dust, and increases in fine soil and coarse particulate are found during documented Sahara Dust events, it is likely

that all or most of the fine soil and coarse particulate found on days with impaired visibility is a result of Saharan Dust.

EPA commissioned a microinventory of emissions on St. John to determine if other sources, particularly local sources of fine or coarse dust, could be contributing to the large amount of fine soil and coarse particulate found on the IMPROVE filters and contributing to high impairment of visibility on St. John. The largest anthropogenic sources of particles found in the microinventory were dirt from the roadways and some dust from construction activities.

Other potential sources of particulates that reduce visibility are combustion sources on the Virgin Islands, including the HOVENSA refinery on St. Croix, ships that serve St. John and miscellaneous combustion sources on St. John.

Trajectory analysis conducted by EPA for days with the highest contributions to visibility impairment showed that fine soil and coarse dust, which are major contributors to Virgin Islands haze episodes, match with long range transport from Africa. Also, sulfates and nitrates, which were at lower concentrations than found in the continental United States, did not correspond to a group of particular sources on days with higher sulfate and nitrate concentrations. Combustion products are often found on days when the trajectories began in the distant continental United States up to two weeks earlier and when air patterns are looping though the Caribbean region in general. There was no obvious or consistent source for days high in combustion products.

These results support the hypothesis that the major contributor to visibility impairment in the Virgin Islands National Park is Saharan Dust. Though on some days, sulfate is a significant contributor to visibility impairment (but still a small contributor compared to continental United States monitoring sites). The Docket contains the results of the modeling using trajectories and using photochemical dispersion models.

B. Long-Term Strategy/Strategies (LTS)

As described above, the Long Term Strategy (LTS) is a compilation of control measures relied on to support the RPGs for the Virgin Islands National Park. The LTS for the Virgin Islands for the first implementation period will address the emissions reductions from Federal, territorial and local controls that take effect in the Territory from the baseline period starting in 2000 until 2018.

EPA has reviewed potential strategies to improve visibility in the Virgin Islands and determined that the following strategies are reasonably available for application in the Virgin Islands: reductions in sulfur in fuel from ferries and cruise ships, the Federal motor vehicle control program, and the consent decree for the HOVENSA refinery on St. Croix. In this action, EPA proposes these controls that we determined are likely to have the largest impacts currently on visibility at the Virgin Islands National Park. EPA estimated emissions reductions for 2018, based on all controls required under Federal and Territory regulations for the 2000-2018 period (including BART), and comparing projected visibility improvement with the uniform rate of progress for the Virgin Islands National Park Class I area. While the LTS for the Virgin Islands does not reach the reasonable progress goal for 2018 for the Virgin Islands, reducing other

emissions is not feasible due to the Virgin Islands' unique circumstances and lack of major emission sources, as discussed further in this proposal.

1. Emissions Inventory for 2018 with Federal and Territory Control Requirements

The emissions inventory used to determine the impact of sources in the Virgin Islands on visibility in the Class I area and the impact of planned emission controls is based on an emission inventory developed by an EPA contractor for the island of St. John, an inventory of significant sources in recent major source permit applications, additional information collected from the HOVENSA refinery on St. Croix and estimated emissions from other islands surrounding St. John, not included in the Territory of the United States Virgin Islands. The emissions reductions used to determine the effects on improving visibility in the National Park were based on projections of Federal and Territorial emission control programs, and other emission reductions specific to the Virgin Islands. EPA has determined that the major effect on visibility impairment in the Virgin Islands National Park is long-range transport of Saharan Dust.[4] However, EPA has also determined that anthropogenic emissions of sulfates, nitrates, particulate carbon and other fine and coarse particulates are significant to PM mass and visibility impairment in the Virgin Islands National Park. The BART guidelines direct states to exercise judgment in deciding whether volatile organic compounds and ammonia impair visibility in their Class I area(s) and whether their emissions can be addressed at this time. Total ammonia emissions in the region are extremely small and will not be addressed at this time. As for volatile organic compounds, they do not directly affect visibility, but can form particulate compounds in the presence of nitrogen oxides and radicals. The development of an emission inventory for volatile organic compounds

[4] Please refer to the Virgin Islands Regional Haze FIP contained in the Docket for this action, for additional information regarding Saharan Dust.

emitted in the Virgin Islands is in its early stages, so EPA proposes to defer evaluation of the impact of these emissions to visibility reduction to the next round of visibility plans, covering 2018 to 2028.

The island of St. John has an inventory that is complete for particulate matter, sulfur oxides and nitrogen oxides. The compiled inventory for other portions of the Virgin Islands included major point sources, since these would have the greatest influence on visibility on St. John. The proposed FIP has calculated changes in emissions from two source groups in the Virgin Islands: the HOVENSA refinery on St. Croix and marine vessels that travel to and from St. John. Reasonable controls are not available for other sources in the Virgin Islands because their impact on visibility in the National Park is very small or the prospective emission reductions are not cost effective based on the EPA's guidelines. While other sources, like motor vehicles, may have fewer emissions by 2018, the EPA has not calculated changes in emissions because the Islands' remote location makes national defaults for changes like vehicle turnover problematic for estimating future emissions in the Virgin Islands.

For the proposed Haze FIP for the Virgin Islands, the official inventory will be the inventory for the island of St. John. Reductions by 2018 are from the use of lower sulfur fuels and nitrogen oxide controls on marine vessels as part of the Emissions Control Area (ECA) covering the portions of the United States in the Caribbean.

Table 2: Sulfur Oxides Emissions from Point, Area and Mobile Sources on St. John, Virgin Islands (tons per year)

Source Sector	Baseline 2002	2018 (with measures for RPG)
Point	43.11	43.11
Area	0.05	0.05
Non-Road Mobile	17.89	17.89
On-Road Mobile	1.61	1.61
Marine Vessels	94.06	14.11
Total	**156.72**	**76.77**

Table 3: Nitrogen Oxide Emissions from Point, Area and Mobile Sources on St. John, Virgin Islands (tons per year)

Source Sector	Baseline 2002	2018 (with measures for RPG)
Point	477.66	477.66
Area	3.69	3.69
Non-Road Mobile	2.07	2.07
On-Road Mobile	25.03	25.03
Marine Vessels	318.23	63.65
Total	**826.68**	**572.1**

Table 4: Direct Emissions of Particulate Matter from Point, Area and Mobile Sources on St. John, Virgin Islands (tons per year)

Source Sector	Baseline 2002	2018 (with measures for RPG)
Point	34.33	34.33
Area	38.32	38.32
Non-Road Mobile	1.93	1.93
On-Road Mobile	0.73	0.73
Marine Vessels	8.57	1.28
Total	**83.88**	**76.59**

Other emission changes in the FIP are from the effects of the consent decree with HOVENSA, whose impact is in the following table:

Table 5: Emissions from HOVENSA in tons per year

	Sulfur Oxides	Nitrogen Oxides	Particulate Matter
HOVENSA Base 2002	12,778	26,362	2,207
HOVENSA Future 2018	9,318	21,331	2,192

EPA used emission changes in Tables 2 through 5 with air quality models to project that 2018 visibility on the 20% worst days in the Virgin Islands National Park Class I area would be improved by 0.16 dv based on application of these controls. The uniform rate of progress goal is

1.48 dv for the period ending in 2018. As a result, these measures are likely to fall short of achieving the reasonable progress goal for 2018 in the Virgin Islands National Park. However, since a large portion of the reductions needed to meet the calculated background visibility in 2064 includes the impact of Saharan Dust and sea salt, which cannot be controlled under this program, the difficulty of achieving interim reasonable progress goals is apparent. EPA proposes that the reasonable measures will help improve visibility in the Virgin Islands National Park Class I area for the first round of the regional haze plan for the Virgin Islands.

2. Reasonable Progress Goals

In determining if reasonable progress is being made, states, or EPA in the case of this FIP, are required to consider the following factors established in section 169A of the Act and in our Regional Haze Rule at 40 CFR 51.308(d)(1)(i)(A): (1) the costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources ("the four RP factors"). Once these factors have been considered, the typical method for determining if a state is making reasonable progress is to use meteorological and air quality computer models to predict the visibility at Class I areas for the end of the planning period (2018). Those modeling results are then assessed to ensure that visibility is not degrading on the best days and that it is improving on the worst days at a reasonable rate, taking into consideration the relevant statutory factors, as well as the base period visibility conditions and the goal of zero anthropogenic visibility impairment by 2064.

In the case of the Virgin Islands, though, a different method of determining reasonable progress is required. As explained in this proposal, the dominant cause of visibility impairment at the Virgin Islands' Class I area is international transport of Saharan Dust and volcanic ash from Montserrat. However, because the Saharan Dust and volcanic eruptions vary greatly from year to year with no discernible pattern, it is impossible to predict future emissions. As a result, there is little value in attempting to model visibility at the Class I area in 2018. The goal of this FIP therefore is to evaluate and remedy the causes of reduced visibility due to human sources.

i. Identification of Pollutants for Reasonable Progress

EPA has evaluated the particulate pollutants (ammonium sulfate, ammonium nitrate, organic carbon (OC), elemental carbon (EC), fine soil, coarse mass (CM), and sea salt) that contribute to visibility impairment at the Virgin Islands Class I Federal area. The largest contributor to haze in the Virgin Islands is coarse mass where all particles are larger than 2.5 microns, which accounts for 36 percent of total interference with visibility on the twenty percent haziest days at the Virgin Islands National Park. The next largest contributor is sea salt at 20 percent; then sulfate at 19 percent; soils were the fourth largest contributor at 13 percent.

There is nothing to be done about the portion of light extinction attributable to sea salt, as it is entirely from sea spray generated by wave action and winds. The days with the highest contributions to reduced visibility have the highest amounts of coarse particulates and fine soil, which indicate the presence of Saharan Dust. The sources of coarse mass are difficult to document because of emission inventory limitations associated with natural sources and uncertainty of fugitive (windblown) emissions. Because of the difficulty in attributing the sources

of visibility impairment for this pollutant, EPA has determined that it is not reasonable in this planning period to recommend emission control measures for coarse mass. Similarly, because fine soil appears to be primarily attributable to international transport of Saharan Dust, EPA has determined that it is not reasonable in this planning period to recommend emission control measures for fine soil. Contributions of coarse mass and fine soil to visibility impairment, and their emissions sources, and potential control measures, should be addressed in future Regional Haze plan updates. Based on the above evaluation, EPA has determined that the first Regional Haze Plan RP evaluation should focus primarily on significant human sources of SO_2 (sulfate precursor) and NO_x (nitrate precursor).

ii. Determining Reasonable Progress Through Island-Specific Emissions Inventories

Due to the difficulty of modeling to project visibility at the Virgin Islands Class I area in 2018, EPA is focusing its reasonable progress analysis on reducing anthropogenic emissions of visibility-impairing pollution. The key anthropogenic pollutants of concern are SO_2, PM, and NO_x. We looked at trends in emissions of anthropogenic SO_2 and NO_x in order to judge if reasonable progress is being achieved.

Rather than use a full statewide inventory to judge reasonable progress, we focused on the inventory for the island of St. John, where the Class I area is located, and other major sources located in the Virgin Islands. As discussed in this proposal, our analysis indicates that most emissions do not significantly impair visibility at the Class I areas due to the prevailing winds. Prevailing winds at St. John are from the east to the west. The Class I area is east and north of St. Thomas and St. Croix, respectively. Therefore, these trade winds tend to transport pollution from

St. Thomas and St. Croix away from the Class I area. In addition, modeling performed to estimate the visibility impact of currently operating individual sources of pollution indicates that even very large sources in the Virgin Islands have relatively small visibility impacts on the Class I area.

In developing the 2018 reasonable progress goal, and determining emission reductions that would help reduce emissions that impair visibility, EPA reviewed present and potential actions that would reduce visibility-impairing emissions between 2000 and 2018. Based on EPA's review, we are proposing to use the following reasonable measures to improve visibility in the Virgin Islands National Park Class I area:

- U.S. Caribbean Emission Control Area for use of lower-sulfur oil in ocean vessels and large ships.
- Emission reductions from the HOVENSA Consent Decree.

U.S. Caribbean Emission Control Area

The United States Government, together with Canada and France, established the North America Emission Control Area (ECA) under the auspices of Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL Annex VI), a treaty developed by the International Maritime Organization. The ECA was amended to include the designated waters around Puerto Rico and the U.S. Virgin Islands. This ECA will require use of lower sulfur fuels in ships operating within 50 nautical miles from the territorial sea baselines of the included islands. Beginning in 2015, fuel used by all vessels operating in these areas cannot exceed 0.1 percent fuel sulfur (1,000 ppm). This requirement is expected to reduce PM and SOx emissions by more than 85 percent. Beginning in 2016, new engines on vessels operating in these areas must

use emission controls that achieve an 80 percent reduction in NOx emissions. While these reductions are not enforceable as part of this FIP, EPA expects them to occur and they will be included in the reductions expected in the period through 2018.

HOVENSA Consent Decree

As discussed in greater detail in the section which discusses the BART determinations, HOVENSA, L.L.C. (HOVENSA) is a petroleum refinery located in St. Croix. In June 2011, EPA and HOVENSA entered into a Consent Decree (CD) to resolve alleged Clean Air Act violations at the refinery. The CD requires HOVENSA, among other things, to achieve emission limits and install new pollution controls pursuant to a schedule for compliance. The measures required by the CD are expected to reduce emissions of NO_x by 5,031 tons per year (tpy) and SO_2 by 3,460 tpy.

In January 2012, HOVENSA announced the refinery would shut down operations and become an oil storage terminal. At this time, HOVENSA has retained its air permits and remains subject to the CD. Since HOVENSA has retained its permits, EPA proposes to determine the emission limitations, pollution controls, schedules for compliance, reporting, and recordkeeping provisions of the HOVENSA CD constitute a long term strategy and, therefore, can be used to address the reasonable progress provisions of 40 CFR 51.308(d)(1). While EPA's modeling analysis to estimate the visibility impact of currently operating individual sources of pollution indicates that even very large sources in the Virgin Islands have relatively small visibility impacts on the Class I area, HOVENSA's modeled impact of more than 1 deciview indicates that HOVENSA impairs visibility in the Class I area on St. John, which leads us to determine that the HOVENSA CD

contains existing reasonable measures that can assist in improving visibility at the Class I area. Should the existing federally enforceable HOVENSA CD be modified, EPA will reevaluate, and if necessary, revise the FIP after public notice and comment.

In addition, EPA is proposing to require HOVENSA to notify EPA 60 days in advance of startup and resumption of operation of refinery process units at the HOVENSA, St. Croix, Virgin Islands facility. EPA proposes that HOVENSA also provide a complete analysis of reasonable measures, consistent with EPA's Regional Haze requirements, if it resumes refinery operations. EPA will revise the FIP as necessary, after public notice and comment, in accordance with regional haze requirements including the "reasonable progress" provisions in 40 CFR 51.308(d)(1).

EPA proposes to determine that these measures are the reasonably available measures that can assist in improving visibility in the Virgin Islands National Park Class I area.

iii. Reasonable Progress Goals - 2018 Visibility Projections

As explained above, there is no modeling available for this planning period that can reliably predict the change in visibility by 2018 due to changes in the emission inventory for all sources (shipping, mobile sources, point sources, etc.) in the Virgin Islands.[5] In the absence of reliable visibility modeling for 2018, EPA is using the island-specific inventories and a post-control emission inventory to judge whether reasonable progress is being made.

[5] As described above, there is acceptable modeling for point sources for the BART and the reasonable progress analysis for point sources.

In order to show how the future emission changes may affect the aerosol levels in the Virgin Islands National Park Class I area, EPA estimated the effect that the changes in the island-specific inventories for $NO_{x,}$ SO_2 and PM will have on the visibility in the National Park. The details of this analysis are discussed in the FIP and the modeling is described in the contractor's report in the Docket.

At the Virgin Islands National Park, the projected visibility for 2018 post control case is slightly better due to the emission reductions anticipated by EPA. Visibility on the worst twenty percent days is improved by 0.16 dv and there is no change in visibility on the twenty percent best days.

iv. Visibility Improvement Compared to URP

The amount of improvement needed to achieve the URP for 2018 at the Virgin Islands National Park is 1.46 dv. Based on the projections of visibility, discussed above, the amount of improvement by 2018 would be 0.16 dv. Therefore, the URP will not be met in the Virgin Islands National Park. Based on our decision on the lack of other reasonable emission controls available for the Regional Haze FIP, we propose to determine that the amount of controls EPA is anticipating by 2018 is the reasonable progress that can be attained in the Virgin Islands.

v. Interstate Consultation Requirement

Pursuant to 40 CFR 51.308(d)(3)(i), if a state has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another state or states, each of the relevant states must consult with the other(s). Since the Virgin Islands are about 1,200 miles from the next nearest Class I area – the Everglades in Florida - we propose to

determine that emissions from the Virgin Islands are not reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another state or states. Because of the distance from the continental United States and the lack of impact modeled from a representative major source in Puerto Rico, we also propose to determine that no emissions from any other state are reasonably anticipated to contribute to visibility impairment in the Virgin Islands' mandatory Class I Federal area.

The Regional Haze Rule also requires any state that has participated in a regional planning process, to "ensure it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process" and to demonstrate the technical basis for this apportionment. 40 CFR 51.308(d)(3)(ii) and (iii). Since the Virgin Islands was not included in any regional planning organizations, there is no obligation for emission reductions on the part of the Virgin Islands. Therefore, we propose to determine that no additional emissions reductions are necessary in the Virgin Islands to meet the progress goal for any mandatory Class I Federal area outside of the Virgin Islands.

vi. Identification of Anthropogenic Sources of Visibility Impairment

Pursuant to 40 CFR 51.308(d)(3)(iv), states are required to identify all anthropogenic sources of visibility impairment considered in developing the long-term strategy, including major and minor stationary sources, mobile sources, and area sources. As explained in section III.C above, we have considered each of these categories in developing our long-term strategy.

vii. Emissions Reductions Due to Ongoing Air Pollution Programs

Our LTS incorporates emission reductions due to ongoing air pollution control programs.

Prevention of Significant Deterioration Rules

One of the primary regulatory tools for addressing visibility impairment from industrial sources under the Act is the Prevention of Significant Deterioration (PSD) program. The PSD requirements apply to new major sources and major sources making a major modification in attainment areas. Among other things, the PSD permit program is designed to protect air quality and visibility in Class I Areas by requiring best available control technology and involving the public in permit decisions. EPA has promulgated a PSD FIP for the Virgin Islands to address the Act's PSD requirements (40 CFR 52.2779(b)). EPA does new source permitting for the Virgin Islands, according to the procedures in the PSD FIP, including implementing requirements for input from the relevant FLM and considering potential visibility impacts to Class I areas from new major stationary source or major modifications of existing major stationary sources. See 40 CFR 52.21 (p)(1).

Reasonably Attributable Visibility Impairment Rules

EPA has promulgated a FIP for the Virgin Islands, which incorporates the provisions of 40 CFR 52.26, 52.29, to address RAVI in the Virgin Islands. See 40 CFR 52.2781. As part of its review of new sources for impairment of visibility at the Class I area in the Virgin Islands, EPA is responsible for determining if sources have a reasonably attributable impairment to visibility in the Class I area.

On-going Implementation of Federal Mobile Source Rules

Mobile source NO_X and SO_2 emissions are expected to decrease in Virgin Islands from 2000 to 2018, due to several existing Federal mobile source regulations. However, we have not quantified these reductions due to uncertainties in the composition of the fleet, use of fuels and vehicle turnover, as compared to EPA's assumptions in our mobile emissions models.

Measures to Mitigate the Impacts of Construction Activities

Potential sources of emissions from construction activities include exhaust from fuel-burning equipment on the site; vehicles working on the site, delivering materials, and hauling away excavate; employee vehicles; and fugitive dust from exposed earth, material stockpiles, and vehicles on roadways, especially unpaved site accesses. These activities can result in emissions of NO_x, SO_x, particulate matter (PM_{10} and $PM_{2.5}$ from engine exhaust and as fugitive dust from roadways and material handling) and primary organic aerosols.

The VIDPNR regulates emissions of air pollutants, including construction emissions, and EPA will work with the VIDPNR to determine if local regulations and enforcement can help reduce pollutants that contribute to regional haze in the National Park.

Table 6. Reasonable Progress Goals and Projected Future Visibility for the Virgin Islands National Park

	Baseline Visibility (2000-2004)	Natural Background Conditions for 2064	Improvement to Reach Reasonable Progress Goal for	2018 Projected Improvement

			2018	
20% Worst Days	17.02	10.68	1.48	0.16
20% Best Days	8.54	4.41	0.96	0.00

(All values expressed as deciviews – lower deciviews means better visibility.)

3. BART

BART is an element of EPA's LTS, as well as a requirement to evaluate controls for older sources that affect Class I areas, for the first implementation period. The BART regional haze requirement consists of three steps: (a) identification of all the BART-eligible sources; (b) an assessment of whether the BART-eligible sources are subject to BART; and (c) the determination of the BART controls.

i. BART-Eligible Sources in the Virgin Islands

The first component of a BART evaluation is to identify all the BART eligible sources within the United States Virgin Islands ("Virgin Islands" or "Territory"). While the Virgin Islands' Department of Planning and Natural Resources (VIDPNR), the Territory's environmental agency, did not submit a SIP, EPA's evaluation process of identifying BART-eligible sources included a review of Title V permits, a review of Title V applications received from VIDPNR, and direct communications with HOVENSA, LLC, one of the BART-eligible sources. To establish which

facilities are BART-eligible, EPA evaluated eligibility criteria for combustion and other process units at the following eight sources throughout the Territory:

- HOVENSA, LLC (St. Croix)
- Three of the Virgin Islands Water and Power Authority (VI WAPA) facilities – one on each of the islands (St. Croix, St. Thomas and St. John)
- St. Croix Renaissance Group, LLLP (St. Croix)
- Wyndham Sugar Bay Beach Club & Resort (St. Thomas)
- Divi Carina Bay Hotel (St. Croix)
- Buccaneer Hotel (St. Croix)

EPA identified three of the eight sources, including multiple combustion or process units at each source, as BART-eligible. The three BART-eligible sources identified by EPA as potentially impacting the Class I area, summarized in Table 7, met the following criteria to be classified as BART-eligible:

- One or more emissions units at the facility are within one of the 26 categories listed in the BART Guidelines (70 FR 39104, 39158; July 6, 2005);
- The emission unit(s) began operation after August 6, 1962, and were still in existence on August 7, 1977;
- Potential emissions of SO_2, NO_x, and PM_{10} from subject units are 250 tons or more per year.

These criteria are in section 169A(b)(2)(A) of the Act, codified in 40 CFR part 51, Appendix Y. None of the remaining five sources met these criteria and therefore were removed from consideration for BART review.

Table 7. BART-Eligible Facilities in the Virgin Island Identified by the EPA

Facilities	**Units**	**BART Source Category**	**Location**
VI WAPA	2 boilers and 2 combustion turbines	Fossil fuel-fired steam electric plant of > 250 mm BTU/hr	St. Thomas
VI WAPA	2 boilers	Fossil fuel-fired steam electric plant of > 250 mm BTU/hr	St. Croix
HOVENSA	8 boilers	Petroleum Refinery	St. Croix
	9 combustion turbines		
	64 process heaters		
	11 reciprocating gas compressors		
	1 tail gas treatment unit		
	3 tail gas incinerators		
	5 flares		
	water intake pumps and desalination water pump		

The BART Guidelines recommend addressing SO_2, NO_x, and PM_{10} as visibility-impairment pollutants. The Guidelines note that states can decide whether to evaluate VOC or ammonia emissions. EPA is not developing additional strategies for VOC or ammonia emissions in its FIP. EPA proposes to determine that the lack of tools available to estimate emissions and subsequently model VOC and ammonia effects on visibility inhibits EPA from addressing BART for these pollutants and that SO_2, NO_x, PM_{10}, and $PM_{2.5}$ are the pollutants reasonably anticipated to contribute to visibility impairment to target under BART.

ii. Sources Subject to BART

The second component of the BART evaluation is to identify those BART eligible sources that may reasonably be anticipated to cause or contribute to visibility impairment at any Class I area, i.e., those sources that are subject to BART. The BART Guidelines allow us to consider exempting some BART-eligible sources from further BART review because a source may not reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area. Consistent with the BART Guidelines, the EPA, through the use of a contractor, performed dispersion modeling to assess the extent of each BART-eligible source's contribution to visibility impairment at the Class I area and we propose to rely on that modeling described below.

Modeling Methodology

The BART Guidelines provide that we may use the CALPUFF[6] modeling system or another appropriate model to predict the visibility impacts from a single source on a Class I area and to, therefore, determine whether an individual source is anticipated to cause or contribute to impairment of visibility in Class I areas, *i.e.*, "is subject to BART." The Guidelines state that we find CALPUFF is the best regulatory modeling application currently available for predicting a single source's contribution to visibility impairment (70 FR 39162, July 6, 2005). The BART Guidelines also recommend that a modeling protocol be developed for making individual source attributions, which in this case is the EPA-approved workplan developed by the contractor. To determine whether each BART-eligible source has a significant impact on visibility, we propose to use the CALPUFF modeling to estimate daily visibility impacts above estimated natural conditions at the Class I area, which is the Virgin Islands National Park, covering much of St. John as well as Hassel Island near St. Thomas. There are no other Class I areas within 300 kilometers (km) of any BART-eligible facility in the Virgin Islands. Emissions were modeled with four years worth of meteorological data, from 2007 through 2010. We used these years because more meteorological data were available and the output provided from the modeling was closer to the actual monitored data than the period 2001 to 2004. The modeling evaluated the impact of three BART sources on the Class I area. EPA believes that this modeling provides a reasonable estimate of daily visibility impacts above estimated natural conditions at the Class I area. Therefore, we propose to use the results of this CALPUFF modeling to determine whether each BART-eligible source has a significant impact on visibility.

[6] Note that our reference to CALPUFF encompasses the entire CALPUFF modeling system, which includes the CALMET, CALPUFF, and CALPOST models and other pre and post processors. The different versions of CALPUFF have corresponding versions of CALMET, CALPOST, etc. which may not be compatible with previous versions (e.g., the output from a newer version of CALMET may not be compatible with an older version of CALPUFF). The different versions of the CALPUFF modeling system are available from the model developer at http://www.src.com/calpuff/calpuff1.htm.

Contribution Threshold

For the modeling to determine the applicability of BART to single sources, the BART Guidelines note that the first step is to set a contribution threshold to assess whether the impact of a single source is sufficient to cause or contribute to visibility impairment at a Class I area. The BART Guidelines state that, "[a] single source that is responsible for a 1.0 deciview change or more should be considered to 'cause' visibility impairment" (70 FR 39161, July 6, 2005). The BART Guidelines also state that "the appropriate threshold for determining whether a source contributes to visibility impairment may reasonably differ across states," but, "[a]s a general matter, any threshold that you use for determining whether a source 'contributes' to visibility impairment should not be higher than 0.5 deciviews." *Id.* Further, in setting a contribution threshold, states or EPA should "consider the number of emissions sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts." *Id.* The Guidelines affirm that states and EPA are free to use a lower threshold if it can be concluded that the location of a large number of BART-eligible sources in proximity to a Class I area justifies this approach.

EPA proposes to follow the BART Guidelines for determining which sources are subject to BART for the Virgin Islands FIP. EPA took into consideration that the Virgin Islands BART sources only affect one Class I area, so numerous small impacts at many Class I areas will not occur. With only three BART sources, the situation is much different than in the eastern United States where over one hundred sources can have overlapping plumes that make a larger impact on several Class I areas (70 FR 39121, July 6, 2005). As shown in Table 8, EPA proposes to exempt two of the three BART-eligible sources in the Territory from further review under the BART

requirements. The visibility impacts attributable to each of the VIWAPA sources is very low (at or less than 0.1 deciviews). Our proposed approach to contribution is to capture any source responsible for a major visibility impact, while excluding other sources with very small impacts.

Sources Identified by EPA as BART-Eligible and Subject to BART

The results of the CALPUFF modeling are summarized in Table 8. EPA is proposing that the VIWAPA facilities not be subject to BART because the demonstrated impacts are very low at all Class I area receptors. EPA proposes that the HOVENSA facility is subject to BART because of the high demonstrated impacts at receptors in the Class I area.

Table 8. Individual BART-eligible Source Visibility Impacts on Virgin Islands Class I Area

Facility and Location	**Class I Area And Locations of Modeling Receptor**	**Average 4-year 98th Percentile Visibility Impact, (deciviews)**	**Subject to BART?**
VI WAPA St. Thomas	St. John Hassel Island, St Thomas	0.06 0.04	No
VI WAPA St. Croix	St. John Hassel Island, St Thomas	0.09 0.10	No
HOVENSA St. Croix	St. John Hassel Island,	1.91 2.35	Yes

	St. Thomas		

iii. BART Evaluations for Sources Identified as Subject to BART by EPA

The third and final component of a BART evaluation is making BART determinations for all BART subject sources. In making BART determinations, section 169A(g)(2) of the Act requires that states consider the following factors: (1) the costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility that may reasonably be anticipated to result from the use of such technology. However, a source that implements the maximum feasible level of control for its emissions has met the BART requirements, and no further analysis is needed. Conversely, a source that limits its emissions via an enforceable permit limit, or shuts down and surrenders its permits, no longer needs to be subject to BART review.

EPA determined that HOVENSA is subject to BART review. The following summarizes EPA's BART analyses and evaluation for each of the HOVENSA units listed in Table 7 that are subject to BART. For further details the reader is referred to EPA's BART analyses contained in the FIP, located in the docket for this proposal at EPA's website at www.regulations.gov.

BART Determinations for HOVENSA

a. Facility Description and Current Status

HOVENSA is a petroleum refinery located in St. Croix, U.S. Virgin Islands. Operations began in 1966 but in October 1998, the Amerada Hess Corporation and Petroleos de Venezuela, S.A.

formed a new corporation, HOVENSA, L.L.C. (HOVENSA) which acquired ownership and operational control of the St. Croix refinery. HOVENSA has a design capacity of 545,000 barrels of crude oil per day, the majority of which is received from Venezuela.

In June 2011, EPA and the U.S. Department of Justice (DOJ) entered into a consent decree (CD) requiring HOVENSA to pay a civil penalty and requiring the implementation of new pollution controls that would help protect the public health and resolve alleged Clean Air Act violations at the St. Croix refinery. The alleged violations cover emissions of SO_2, NO_x, VOCs and benzene from the Fluidized Catalytic Cracking Unit (FCCU), refinery heaters, boilers, generating combustion turbines, compressor engines, flares, sulfur recovery units and process units related to VOC and benzene emissions. EPA estimates that for the affected process heaters, boilers, generating turbines, and compressor engines, the cumulative reduction in NO_x emissions, attributable to the CD, which are defined there as "Qualifying Controls" are as follows: 1,079 tpy by June 2015, 3,663 tpy by June 2016 and 4,744 tpy by June 2019.[7] Also, EPA estimates that for the affected FCCU, FCCU catalytic regenerator, boilers, process heaters, generating combustion turbines, sulfur recovery plants, and flares, the reduction in SO_2 emissions, attributable to the CD is 3,460 tpy. The CD requires SO_2 reductions from the flares within the 2018-2021 timeframe whereas SO_2 reductions for other units are to be implemented within the period of 2011-2014. A copy of the CD is included in the Docket. For further information the reader is referred to http://www.epa.gov/compliance/resources/cases/civil/caa/hovensa.html.

[7] See Appendix A of the CD for a list of affected sources: heaters and boilers greater than 40 mm BTU/hour, generating turbines and compressor engines.

On January 18, 2012, HOVENSA announced the refinery on St. Croix would shut down operations and become an oil storage terminal. Currently, HOVENSA has shutdown all refinery operations except for some process unit cleanout operations. HOVENSA is still finalizing intermediate and long term plans for operation of the bulk storage terminal to determine what utilities will continue to be needed. In the meantime, HOVENSA has retained its air permits and remains subject to the CD. Since HOVENSA has retained its permits, EPA evaluated BART for HOVENSA's BART-eligible sources.

b. BART Analysis

Eight Boilers

HOVENSA owns and operates nine steam boilers that are capable of combusting either refinery fuel gas (RFG) or No. 6 fuel oil and the heat input to the boilers is in the range of 205 to 405 mm BTU/hr. One of the boilers (Boiler 10) was constructed in 1999 and therefore is not BART-eligible. EPA has determined there are eight boilers subject to BART. SO_2 emissions are controlled by a permit limiting the sulfur content of No. 6 fuel oil to 0.50% or 1.0% depending upon wind conditions as defined in the permit. In addition, the June 2011 CD will lower SO_2 emissions by requiring that the combustion of RFG by the boilers, containing hydrogen sulfide (H_2S), meet the requirements of the New Source Performance Standards (NSPS) part 60, Subparts J and Ja. The June 2011 CD requires the facility to lower the sulfur content of No. 6 fuel oil to 0.55% maximum, 0.50% annually, and to a low limit of 0.30% depending upon wind conditions as defined in the CD. There are no existing controls for NO_x and PM emissions from the BART-eligible boilers.

For control of SO_2, NO_x and PM emissions, based upon EPA's analysis, EPA is proposing that current operations represent BART for each of the boilers subject to BART. For SO_2 and PM control, EPA's contractor evaluated Duct Injection and Fabric Filters (DIFF) using lime as the alkaline reagent. DIFF is a semi-wet flue gas desulfurization (FGD) process. The fabric filter is the PM control device. EPA has determined that the DIFF controls evaluated for the boilers subject to BART are not cost effective. EPA determined that the cost effectiveness for the eight boilers subject to BART varied from about $19,100 to $39,600 per ton of SO_2 and PM reduced, which is too costly to be cost effective per ton of reduced emissions. In addition, it is EPA's opinion that if maximum controls had been evaluated, such as lime or limestone wet FGD, the cost effectiveness would be even higher than for the DIFF controls evaluated. Therefore, EPA determines that for SO_2 and PM controls, current operation is considered as BART.

For control of NO_x emissions, EPA's contractor evaluated selective non-catalytic reduction (SNCR) using ammonia as the reagent. EPA has determined that implementation of SNCR controls for boilers subject to BART are cost effective. The actual cost effectiveness for the boilers is in the range of about $710 to $860 per ton of NO_x removed. As summarized in Table 8, the visibility impact (98^{th} percentile, 4 year average) of all BART-eligible sources from HOVENSA in the Class I area at St. John is 1.91 dv for all pollutants. EPA further analyzed the contribution of various chemical species and components on the visibility impacts and has established that the contribution of NO_x compounds is about 5% which would be equivalent to 0.09 dv visibility impact at St. John from all HOVENSA units subject to BART, including the 8 boilers subject to BART. Since the visibility impact due to NO_x emissions from all HOVENSA units subject to BART is only about 0.09 dv, EPA proposes that the implementation of any NO_x

controls (even SNCR or selective catalytic reduction (SCR)) would not have any significant visibility impact on the Class I area in the Virgin Islands and therefore EPA proposes to determine that current operation of the boilers subject to BART is considered BART for controlling NO_x emissions. Also, as discussed in the Reasonable Progress Goals section, EPA is proposing to require HOVENSA to provide a complete analysis of reasonable measures, if it resumes refinery operations.

Combustion Turbines

HOVENSA owns and operates eleven combustion turbines that are capable of combusting two or more of the following fuel combinations: refinery fuel gas (RFG), liquefied petroleum gas (LPG) and distillate oil. Two of the turbines were constructed in 1993 and 2009 and are therefore not BART-eligible. EPA has determined nine turbines are subject to BART. SO_2 emissions are controlled by limiting the fuel sulfur content as follows: distillate oil has a permit sulfur limit of 0.20%; LPG does not contain any sulfur; RFG sulfur content will be limited by the CD that requires the combustion of RFG with limits on the H_2S content in accordance with the NSPS requirements at subpart J or Ja. For NO_x, only one turbine has implemented control technology (steam injection). For PM, none of the turbines subject to BART have any controls.

For control of SO_2, NO_x and PM emissions, based upon EPA's analysis, EPA is proposing that current operations represent BART for each of the nine combustion turbines subject to BART. For SO_2 and PM control, as with the boilers discussed above, EPA's contractor evaluated Duct Injection and Fabric Filters (DIFF) using lime as the alkaline reagent. Based upon this analysis, EPA has determined that the DIFF controls evaluated for the nine combustion turbines are not

cost effective. EPA determined that the cost effectiveness for the nine combustion turbines varied from about $122,300 (8 turbines) to $359,186 (1 turbine) per ton of SO_2 and PM reduced. The cost effectiveness values for the combustion turbines are much higher than for the boilers because the SO_2 emissions from the boilers are much higher (by a factor of 2 to 4 times) than from the turbines. Therefore, EPA determines that for SO_2 and PM controls, current operation is considered as BART.

For control of NO_x emissions from the turbines (as discussed above for the boilers) EPA's contractor evaluated selective non-catalytic reduction (SNCR) using ammonia as the reagent. EPA has determined, except for one turbine, that implementation of SNCR controls for eight turbines are cost effective. The actual cost effectiveness for the turbines is from about $1,750 to $1,890 per ton of NO_x removed. The one turbine where control is not cost effectiveness had a value of $9,500/ton, because the NO_x emissions are much lower due to NO_x controls installed on the turbine. Even though controls on eight of the nine turbines are cost effective, EPA has determined, for the same reasons discussed above for the boilers, that the visibility impact due to NO_x emissions is only about 0.09 dv from HOVENSA units subject to BART, and therefore the implementation of any new NO_x controls (even SNCR or SCR) would not have any significant visibility impact on the Class I area in the Virgin Islands. Therefore, EPA is determining that current operations of the nine turbines subject to BART are considered BART for controlling NO_x emissions.

Process Heaters

HOVENSA owns seventy process heaters of which twenty-one were shut down in early 2011. Of the seventy heaters, EPA has determined that sixty-four are subject to BART whereas the remaining six heaters were constructed after 1977 and are therefore not BART-eligible. Of the sixty-four process heaters subject to BART, fifteen are capable of combusting either RFG or No. 6 fuel oil whereas the remaining forty-nine heaters combust only RFG.

For the fifteen heaters capable of combusting No. 6 fuel oil, SO_2 emissions are controlled by permits limiting the sulfur content of No. 6 fuel oil to 0.50% or 1.0%. The June 2011 CD provides for lowering SO_2 emissions by establishing lower sulfur content of No. 6 fuel oil. In addition, the CD requires process heaters to meet the NSPS at part 60, either subpart J or Ja. None of the process heaters subject to BART have any controls for either NO_x or PM.

For control of SO_2, NO_x and PM emissions, based upon EPA's analysis, EPA is proposing that current operations represent BART for each of the sixty-four process heaters subject to BART. Although EPA's contractor determined cost effectiveness for only the boilers and combustion turbines, EPA has concluded that, for control of SO_2, NO_x and PM, there is sufficient information to make a determination that current operation represents BART for each of the process heaters subject to BART. For the SO_2 and PM BART determination, EPA notes that the SO_2 emissions, heat input and fuel type for each of the six largest process heaters is similar to that of most of the boilers which EPA determined BART control was not cost effective. It is EPA's judgment from this size comparison between the boilers and the six largest heaters that the cost effectiveness for the process heaters would be less than the cost effectiveness for the boilers, but still would result in determining additional controls as not being cost effective. The great majority of the remainder

of the process heaters combust only RFG, have a smaller heat input (each by a factor of about 2.75 average) and have lower SO_2 emissions (each by a factor of about 7.8 on average) than the six larger heaters. Based upon this comparison, EPA would expect that controls for the remaining smaller process heaters will not be cost effective. Therefore, for SO_2 and PM emissions, EPA proposes to determine that the controls for all the process heaters subject to BART are not cost effective and that current operation is considered BART.

As discussed above for the boilers and combustion turbines, EPA determined that implementation of controls on NO_x emissions from all BART units at HOVENSA have an insignificant visibility impact on the Class I area and EPA is proposing to determine this is also true for the process heaters. Therefore EPA proposes that current operation of the process heaters subject to BART is considered as BART for controlling NO_x emissions.

Other Significant HOVENSA Emission Units Subject to BART

HOVENSA owns and operates many other emission units that are subject to BART, including reciprocating gas compressors, tail gas treatment units, tail gas incinerators, flares, water intake pumps and a desalination water pump. For many of these units, actual emissions are negligible and PTE emissions are small. Also, the June 2011 CD contains additional compliance requirements for these units, such as meeting the NSPS emission limits under part 60 subparts J or Ja.

In all cases, EPA is proposing that current operations represent BART control for SO_2, NO_x and PM emissions for each of these sources subject to BART. It is EPA's judgment that any detailed

cost analysis would conclude that implementation of any additional control technologies for controlling emissions of SO_2, NO_x or PM would have resulted in higher cost effectiveness values. Also, for the same reasons discussed above for the boilers, turbines and process heaters, EPA proposes that any reduction in NO_x emissions will not significantly improve visibility at the Class I area in the Virgin Islands and therefore current operation of each source subject to BART (without any new controls) represents BART for controlling NO_x emissions.

The reader is referred to the Regional Haze Virgin Islands FIP found in the Docket for this proposal, which contains a complete description of all of the HOVENSA emission units subject to BART, and the respective BART determinations.

While there is uncertainty at this time regarding future operations at HOVENSA, the CD does contain emission reductions and emission limit requirements which allow us to project that should HOVENSA resume operating as a refinery, it may be at a lower capacity factor, with much less sulfur. Although these resulting reductions in sulfur emissions are not enforceable requirements under this action, they suggest that SO_2 emissions from HOVENSA may decrease even in the absence of any BART requirements. This analysis also indicates that at least some of the units at HOVENSA may be coming to the end of their useful life and not operate again.

In summary, EPA's BART evaluation of the boilers, turbines, process heaters, and several other source categories that are subject to BART has determined that no additional control is consistent with BART, given the unique situation with HOVENSA and the unique visibility conditions in the Virgin Islands, and is proposing that current operations represent BART for HOVENSA. As

such, EPA's Federal plan includes the establishment of emission limits for SO_2, NO_x and PM equivalent to the potential to emit (PTE) for each unit subject to BART, as derived from HOVENSA's permit limit conditions. EPA's Federal plan includes these PTE limits in the spreadsheets found in the Attachments to the FIP.

C. Consultation with Federal Land Managers

Under section 169A(d) of the Act, we are required to consult with the appropriate FLM(s) before proposing the Virgin Islands Regional Haze FIP. We must also include a summary of the FLMs' conclusions and recommendations in this notice. EPA has consulted informally with the FLMs throughout the development of the Virgin Islands Regional Haze FIP, including periodic updates during national teleconferences between EPA and the FLMs for the past several years. EPA also had two formal discussions with the FLMs as part of the consultation process. On May 28, 2008, EPA Region 2 held a teleconference with representatives of the National Park Service to brief them about our technical findings regarding regional haze in the Virgin Islands. Most recently, on May 9, 2012, EPA Region 2 held discussions about our final plans for addressing regional haze in the Virgin Islands. Following that discussion, EPA provided the National Park Service with copies of the BART analysis for their comments. EPA provided the FLMs with a copy of the proposed FIP just prior to publishing this proposal and acknowledges, as does the FLM, that any formal comments by the FLMs will be provided to EPA during the public comment period for this proposal.

In addition, 40 CFR 51.308(i)(4) specifies the regional haze FIP must provide procedures for continuing consultation with the FLMs on the implementation of the visibility protection program

required by 40 CFR subpart P, including development and review of implementation plan revisions and 5-year progress reports, and on the implementation of other programs having the potential to contribute to impairment of visibility in mandatory Class I Federal areas. We intend to continue to consult with the FLMs regarding all aspects of the visibility protection program and we encourage the Virgin Islands government to do the same.

D. Periodic SIP Revisions and Five-Year Progress Reports

EPA commits to coordinate with the Virgin Islands government in order to revise and submit a regional haze implementation plan by July 31, 2018, to address the next ten years of progress toward the national goal in the Act of eliminating manmade haze by 2064, and to submit a plan every ten years thereafter, in accordance with the requirements listed in 40 CFR 51.308(f) of the Federal rule for regional haze. EPA's commitment includes continuing to consult with the FLMs on the implementation of section 51.308 and this FIP, including development and review of future SIP revisions and five-year progress reports, and on the implementation of other programs affecting the impairment of visibility in Class I areas. EPA commits to address the following in its Mid-Course Review report: address any uncertainties encountered during regional haze planning process; report on the progress of the BART analysis, determinations, and implementation; report on whether additional potential actions identified in its plan or through public comment, will be implemented and the status of those efforts. The reasonable progress report will evaluate the progress made towards the RPGs for the Virgin Islands National Park. EPA will work with the Virgin Islands territorial government to prepare and submit updates to the emission inventories, a mid-course review and a revised plan for the next ten-year period starting in 2018.

E. Coordinating Regional Haze and Reasonably Attributable Visibility Impairment (RAVI) LTS

EPA is the reviewing agency for the Prevention of Significant Deterioration (PSD) program in the Virgin Islands and is responsible for preventing new and modified sources from significantly impacting visibility in the Class I area of the Virgin Islands National Park on St. John and Hassel Islands. EPA will review the impact of proposed sources on visibility under 40 CFR 52.26 and 52.28, by implementing the PSD permit requirements for new or modified major sources of air pollutants located within 100 kilometers of the Class I area, or within a larger radius on a case-by-case basis, in accordance with all applicable Federal rules for review of the impacts on Class I areas. We propose to find that the Regional Haze FIP appropriately supplements and augments EPA's FIP for RAVI visibility provisions by updating the monitoring and LTS provisions to address regional haze. We discuss the relevant monitoring provisions further below.

F. Agricultural and Forestry Smoke Management Techniques

40 CFR 51.308(d)(3)(v)(E) requires the Virgin Islands to consider smoke management techniques for the purposes of agricultural and forestry management in developing reasonable progress goals. Smoke Management Programs are only required when smoke impacts from fires managed for resource benefits contribute significantly to regional haze. The results of the emissions inventory indicate that emissions from agricultural, managed, and prescribed burning are very minor source categories. It is unlikely that fires for agricultural or forestry management cause large impacts on visibility in the Virgin Islands National Park. On rare occasions, smoke from major fires degrades the air quality and visibility in the Virgin Islands. However, these fires are generally unwanted wildfires that are not subject to smoke management programs. Since there is no evidence of

agricultural burning contributing to haze at Class I areas, we propose to determine that no further controls on agricultural burning or forest fires are reasonable at this time.

G. Monitoring Strategy and Other Implementation Plan Requirements

40 CFR 51.308(d)(4) requires that the FIP contain a monitoring strategy for measuring, characterizing, and reporting regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the state. This monitoring strategy must be coordinated with the monitoring strategy required in 40 CFR 51.305 for RAVI. As 40 CFR 51.308(d)(4) notes, compliance with this requirement may be met through participation in the IMPROVE network. Consistent with EPA's monitoring regulations for RAVI and regional haze, EPA will rely on the IMPROVE network for compliance purposes, in addition to any RAVI monitoring that may be needed in the future. Therefore, we propose to find that we have satisfied the requirements of 40 CFR 51.308(d)(4).

The primary monitoring network for regional haze in the United States is the IMPROVE network. There is currently one IMPROVE site in the Virgin Islands, in the Virgin Islands National Park. IMPROVE monitoring data from 2000-2004 serves as the baseline for the regional haze program, and is relied upon in our proposed FIP. Data produced by the IMPROVE monitoring network are essential for the verification of the effects of changes in emissions on visibility in Class I areas and will be needed for preparing the 5-year progress reports and the 10-year SIP revisions, each of which relies on analysis of the preceding five years of data. EPA will continue to encourage the National Park Service to continue to operate and maintain the monitoring site in the Virgin Islands National Park, providing support as EPA deems appropriate.

V. What Action is EPA Proposing to Take?

EPA is proposing a Federal Implementation Plan for Regional Haze for the Territory of the United States Virgin Islands. This FIP addresses progress toward reducing regional haze for the first implementation period ending in 2018. The proposed FIP includes emission reductions to begin the reasonable progress needed to achieve the overall objective of no man-made interference with visibility by 2064. The proposed FIP relies on emission reductions from existing emissions controls and programs currently in effect, and proposes to require HOVENSA to notify EPA in the event it resumes operation of the refinery process units and to provide an analysis for reasonable measures consistent with EPA's Regional Haze Guidelines. Thus, EPA is proposing a Regional Haze Plan to satisfy the requirements of the Act. EPA is taking this action pursuant to CAA sections 110(a), 301(a), 169A and 169B. EPA is soliciting public comments on the issues discussed in this document and will consider these comments before taking final action.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

This proposed action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011). The proposed Virgin Islands Regional Haze FIP requires implementation of existing emissions controls and emission reduction strategies on one facility and is not a rule of general applicability.

B. Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Under the Paperwork Reduction Act, a "collection of information" is defined as a requirement for "answers to…identical reporting or recordkeeping requirements imposed on ten or more persons…."44 U.S.C. 3502(3)(A). Because the proposed FIP applies to just one facility, the Paperwork Reduction Act does not apply. See 5 CFR 1320(c).

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. The OMB control numbers for our regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the

Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

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

After considering the economic impacts of this proposed action on small entities, I certify that this proposed action will not have a significant economic impact on a substantial number of small entities. The Regional Haze FIP that EPA is proposing for purposes of the regional haze program consists of imposing existing Federal controls to meet the BART requirement for SO_2, NOx, and PM emissions on specific units at one facility in the Virgin Islands. The net result of this FIP action is that EPA is proposing existing direct emission controls on selected units at only one facility. The facility in question is a large petroleum refinery that is not owned by a small entity, and therefore is not a small entity.

D. Unfunded Mandates Reform Act (UMRA)

This rule does not contain a Federal mandate that may result in expenditures that exceed the inflation-adjusted UMRA threshold of $100 million by State, local, or Tribal governments or the

private sector in any 1 year. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

The proposed Virgin Islands Regional Haze FIP does not have federalism implications. This action will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. In this action, EPA is fulfilling its statutory duty under CAA section 110(c) to promulgate a Regional Haze FIP following its finding that the Virgin Islands had failed to submit a regional haze SIP. Thus, Executive Order 13132 does not apply to this action. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments. Thus, Executive Order 13175 does not apply to this rule.

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

EPA interprets EO 13045 as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it implements specific standards established by Congress in statutes. However, to the extent this proposed rule will limit emissions of SO_2, NOx, and PM the rule will have a beneficial effect on children's health by reducing air pollution.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995

requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use "voluntary consensus standards" (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical. EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994), establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

We have determined that this proposed rule, if finalized, will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it limits increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: 6/14/2012

Judith A. Enck,

Regional Administrator,

Region 2.

Part 52, chapter I, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 52 - [AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart CCC – Virgin Islands

2. In § 52.2781, add paragraph (d) to read as follows:

§ 52.2781 Visibility protection.

* * * * *

(d) Regional Haze Plan for Virgin Islands National Park.

(1) *Applicability*. This section addresses Clean Air Act requirements and EPA's rules to prevent and remedy future and existing man-made impairment of visibility in the mandatory Class I area of the Virgin Islands National Park through a Regional Haze Program. This section applies to the owner and operator of HOVENSA L.L.C. (HOVENSA), a petroleum refinery located on St. Croix, U.S. Virgin Islands.

(2) *Definitions*. Terms not defined below shall have the meaning given them in the Clean Air Act or EPA's regulations implementing the Clean Air Act. For purposes of this section:

NO_x means nitrogen oxides.

Owner/operator means any person who owns, leases, operates, controls, or supervises a facility or source identified in paragraph (a) of this section.

PM means particulate matter

Process unit means any collection of structures and/or equipment that processes, assembles, applies, blends, or otherwise uses material inputs to produce or store an intermediate or a completed product. A single stationary source may contain more than one process unit, and a process unit may contain more than one emissions unit. For a petroleum refinery, there are several categories of process units that could include: those that separate and/or distill petroleum feedstocks; those that change molecular structures; petroleum treating processes; auxiliary facilities, such as steam generators and hydrogen production units; and those that load, unload, blend or store intermediate or completed products.

SO_2 means sulfur dioxide.

Startup means the setting in operation of an affected facility for any purpose.

(3) *Reasonable Progress Measures.* On June 7, 2011, EPA and HOVENSA entered into a Consent Decree (CD) in the U.S. District Court for the Virgin Islands to resolve alleged Clean Air Act violations at its St. Croix, Virgin Islands facility. The CD requires HOVENSA, among other things, to achieve emission limits and install new pollution controls pursuant to a schedule for compliance. The measures required by the CD are expected to reduce emissions of NO_x by 5,031 tons per year (tpy) and SO_2 by 3,460 tpy. The emission limitations, pollution controls, schedules for compliance, reporting, and recordkeeping provisions of the HOVENSA CD constitute an element of the long term

strategy and address the reasonable progress provisions of 40 CFR 51.308(d)(1). Should the existing federally enforceable HOVENSA CD be revised, EPA will reevaluate, and if necessary, revise the FIP after public notice and comment.

(4) *HOVENSA requirement for notification and four factor analysis.* HOVENSA must notify EPA 60 days in advance of startup and resumption of operation of refinery process units at the HOVENSA, St. Croix, Virgin Islands facility. HOVENSA shall submit such notice to the Director of the Clean Air and Sustainability Division, U.S. Environmental Protection Agency Region 2, 290 Broadway, 25th Floor, New York, New York, 10007-1866. HOVENSA's notification to EPA that it intends to startup refinery process units must include a complete analysis of reasonable measures needed to comply with regional haze requirements. EPA will revise the FIP as necessary, after public notice and comment, in accordance with regional haze requirements including the "reasonable progress" provisions in 40 CFR 51.308(d)(1). HOVENSA will be required to install any controls that are required by the revised FIP as expeditiously as practicable, but no later than 5 years after the effective date of the revised FIP.

(5)

(6)

(7) [FR Doc. 2012-15463 Filed 06/22/2012 at 8:45 am; Publication Date: 06/25/2012]