

BEFORE THE ENVIRONMENTAL APPEAL BOARD
UNITED STATE ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D. C

In re

**FOOTPRINT SALEM
HARBOR DEVELOPMENT, LP**

**Appeal No. PSD 14-02
MassDEP Application No. 12-022
MassDEP Transmittal No. X254064**

MassDEP's Response to the Amended Petition for Review

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INTRODUCTION

The EPA Environmental Appeals Board (“Board”) should deny review of the challenge brought by four individuals (the “Petitioners”) to the Prevention of Significant (“PSD”) Permit issued by the Massachusetts Department of Environmental Protection (“MassDEP”) to Footprint Power Salem Harbor Development LLP (“Footprint”) authorizing the construction of a new 630 megawatt (MW)(692 MW with duct firing) natural gas-fired, quick-start, combined-cycle electric generating facility in Salem, Massachusetts (“SHR Project”).¹ (Exhibit 1, p.4) As more fully set forth below, the Petitioners have failed to demonstrate clear error, an abuse of discretion, or an important policy consideration warranting Board review.

ISSUES PRESENTED FOR REVIEW

This case presents the following issues for review:

Whether the Petitioners have shown that MassDEP’s selection of the Best Available Control Technology (“BACT”) emission limits for Particulate Matter (“PM/PM10/PM2.5”), and Greenhouse Gases (“GHGs”) during normal operations and for nitrogen oxides (“NOx”) during periods of start-up and shut-down (“SUSD”) involves clear error, an abuse of discretion or an important policy issue warranting Board review?

Whether the Petitioners have shown that MassDEP’s decision to issue the PSD Permit without reopening the public comment period involves clear error, an abuse of discretion, or an important policy issue warranting Board review?

Whether the Petitioners have shown that MassDEP’s decision to allow the use of existing data from the Lynn monitor to fulfill the pre-construction monitoring requirement involves clear error, an abuse of discretion, or an important policy issue warranting Board review?

¹ On April 11, 2011 MassDEP and EPA entered into an Agreement for Delegation of the PSD Program by EPA to MassDEP (“Delegation Agreement”). In the Delegation Agreement, MassDEP agreed to issue PSD Permits to sources in Massachusetts in accordance with 40 C.F.R. § 52.21 and 40 C.F.R. Part 124. (Exhibit 1, p.2)

Whether the Petitioners have shown that MassDEP's use of Significant Impact Levels ("SILs") when it concluded that the SHR Project emissions do not cause or contribute to a violation of the National Ambient Air Quality Standards ("NAAQS") involves clear error, an abuse of discretion, or an important policy issue warranting Board review?

Whether the Petitioners have shown that the claim that MassDEP erred when it determined that the emissions of volatile organic compounds ("VOCs") from the SHR Project are not subject to regulation by the PSD Permit has been preserved for review?

Whether the Petitioners have shown that MassDEP's determination that the emissions of VOCs from the SHR Project are not subject to regulation by the PSD Permit involves clear error, an abuse of discretion, or an important policy issue warranting Board review?

FACTUAL AND PROCEDURAL BACKGROUND

The SHR Project is comprised of two generating units that will be able to operate independently to respond to dispatch requirements.² Each unit includes a gas turbine generator ("GTG"), a steam turbine generator ("STG"), a heat recovery steam generator ("HRSG") with selective catalytic reduction ("SCR"), an oxidation catalyst, generator start-up transformers, and an air-cooled condenser.³ The SHR Project also includes an auxiliary boiler, an emergency generator, and a fire pump engine. (Exhibit 1, pp. 4-5)

² Footprint evaluated the no-build option as part of the environmental review process required by M.G.L. c. 30, §§ 61-62H, that preceded the issuance of the PSD Permit. In his May 17, 2013 Certificate on the Final Environmental Impact Report ("FEIR"), the Secretary of the Executive Office of Energy and Environmental Affairs (the "Secretary") noted that "a major public benefit of the project is to meet energy demands and improve reliability within the Northeastern Massachusetts ("NEMA")/Boston load zone, and provide quick-start capability that will complement intermittent wind energy resources." The Secretary noted that the Forward Capacity Auction Filing indicates that NEMA/Boston would not meet local sourcing requirements without the new capacity proposed by Footprint. The Secretary further noted that the Massachusetts Department of Public Utilities has determined that absent Footprint, there would be a need in NEMA/Boston for additional capacity beginning in the 2016-2017 year. (Exhibit 2, p. 8)

³ Footprint evaluated its cooling options as part of the state environmental review process, and in the approval to construct proceedings before the Energy Facilities Siting Board ("EFSB")-two proceedings that took place prior to issuance of the PSD Permit at issue in this case. At the conclusion of the environmental review process, the Secretary concluded that no further environmental review was required for the SHR Project with air-cooling, even though air-cooling is less efficient than wet-cooling. (Exhibit 2, p. 13) At the conclusion of the approval to

On December 21, 2012, Footprint submitted an initial application to MassDEP requesting a PSD Permit for the SHR Project.⁴ Footprint submitted additional information on April 12, 2013, June 10, 2013, June 18, 2013, August 6, 2013, August 20, 2013, September 4, 2013, and September 9, 2013.⁵ (Exhibit 6, p. 3) Air quality modeling submitted with the application showed that the SHR Project's emissions would not cause or contribute to a violation of the NAAQS⁶ or an exceedance of the PSD increments.⁷ The background concentrations used in the air quality modeling were obtained from MassDEP's Lynn monitoring station, located approximately 5.9 miles southwest of the SHR Project site. (Exhibit 6, p. 20)

construct proceeding, the EFSB likewise approved the facility with air-cooling. (Exhibit 3, pp. 1, 36) In its initial BACT analysis, Footprint also evaluated its cooling options. See pp. 5-10-5-11 of Exhibit 4A.

⁴ Footprint's initial application contained a highly detailed BACT analysis. Footprint stated that it was considering either the Siemens Flex Plant 30 SCC-5000F or the GE Energy 107F A.05 Rapid Response Combined - Cycle Plant. Footprint evaluated the two models in submissions made prior to the issuance of the Draft PSD Permit. Information on NOx emissions for both units was provided in Footprint's submissions dated December 21, 2012, June 10, 2013, and August 6, 2013. (Exhibits 4A, 4C, and 4E) The additional information showed that there was no advantage in selecting Siemens over GE with regard to reducing NOx SUSD emissions. In an April 12, 2013 submission, Footprint compared the net output rates of GHGs for the GE and Siemens operating units. (Exhibit 4B) On June 10, 2013, Footprint notified MassDEP that it had selected the GE unit, because, *inter alia*, its GHG emissions were lower for each net megawatt of energy delivered to the grid. (Exhibits 4A and 4C)

⁵ In the initial application, Footprint also requested a Major Comprehensive Plan Application ("CPA") Approval in accordance with the Massachusetts Air Pollution Control Regulations, 310 CMR 7.02 and Appendix A to 310 CMR 7.00. As set forth in 310 CMR 7.02 and Appendix A, the CPA Approval includes non-attainment new source review. (Exhibit I pp.2-3)

⁶ Section 109 of the Clean Air Act ("CAA"), 42 U.S.C. § 7409, directs the EPA to propose and promulgate NAAQS for pollutants that cause or contribute to air pollution that may reasonably be anticipated to endanger the public health and welfare. Section 109(b)(1) provides that this standard shall protect the public health with an adequate margin of safety.

⁷ An increment is the mechanism used in the PSD Program to define significant deterioration of ambient air quality for a regulated pollutant. An increment is the maximum allowable increase in ambient concentration of a pollutant in an area relative to a specified baseline concentration. In general, a change in ambient pollutant concentrations greater than the amount defined by an increment is considered to significantly deteriorate air quality. See CAA § 165(a)(3)(A), 42 U.S.C. § 7475(a)(3)(A); 40 C.F.R. § 52.21(c).

On September 9, 2013⁸, MassDEP issued a Draft PSD Permit and a Draft PSD Fact Sheet⁹ for the SHR Project. The Draft PSD Fact Sheet expressly stated that the SHR Project was not subject to PSD review for VOCs, since the SHR Project would not emit this contaminant at a significant rate.¹⁰ (Exhibit 6, p. 9) The Draft PSD Permit, nevertheless, contained emission limits for VOCs.¹¹ (Exhibit 5, p. 6) The Draft PSD Permit also contained emission limits for GHGs and the New Source Review (“NSR”) regulated pollutants that would be emitted at a significant rate including PM/PM10/PM2.5 and NOx. (Exhibit 5 pp. 5-9)

Notice of the Draft PSD Permit and Draft PSD Fact Sheet was published in the *Boston Globe* and the *Salem News* on September 10, 2013 and in the *Environmental Monitor* on September 11, 2013. MassDEP also posted the public notice on its website. (Exhibit 7)¹² The public notice

⁸ On September 9, 2013, MassDEP also issued a Proposed CPA Approval for the SHR Project. (Exhibit 6, p. 2)

⁹ In the Draft PSD Fact Sheet, MassDEP noted that Footprint had selected the cleanest burning fossil fuel available, natural-gas and determined that this choice represents the most stringent BACT with respect to turbine fuels. To control NOx, MassDEP noted that Footprint had selected state of the art dry low-NOx combustors in combination with SCR, technology that is capable of delivering BACT. MassDEP pointed out that Footprint proposed a NOx limit of 2.0 ppmvd. MassDEP compared this proposed limit with the limit contained in permits for other similar facilities and determined it represented BACT. MassDEP noted that Footprint had chosen natural gas and state of the art combustion turbines to control PM/PM10/PM2.5 and determined that approach delivered BACT. Footprint compared the limits for PM/PM10/PM2.5 in the Draft PSD Permit with the limits in other permits. MassDEP explained that compliance with the more stringent PM/PM10/PM2.5 limits in the Pioneer Valley and Brockton permits had not been demonstrated, since neither of these facilities has been built. MassDEP noted that the only way to control the emission of Sulfuric Acid (H2SO4) mist is to use a low sulfur fuel and that the SHR Project employed this approach by using natural gas. MassDEP noted that the limit for H2SO4 mist in the SHR Project PSD Permit is more stringent than the limit in the Pioneer Valley PSD Permit. MassDEP also pointed out that the Brockton CPA Approval did not have a limit for H2SO4 mist. MassDEP summarized the detailed GHG BACT analysis set forth in the application and determined that BACT would be met by the use of natural gas and combined-cycle technology. MassDEP compared the GHG limit in the Draft PSD Permit with the limits in the permits for Pioneer Valley and Brockton. MassDEP noted that the limits in the Draft PSD Permit were identical to the limits in the Pioneer Valley PSD Permit. MassDEP further explained why the limits in the Brockton CPA Approval are different from the limits in the SHR Project’s Draft PSD Permit. (Exhibit 6, pp. 8-17)

¹⁰ The Draft PSD Fact Sheet and the Final PSD Fact Sheet identified VOCs as an ozone precursor although the PSD Regulations, 40 C.F.R. § 52.21(b)(50) provides that VOCs are ozone precursors in all attainment and unclassifiable areas. Massachusetts has been designated in non-attainment for the 1997 Ozone Standard. (Exhibit 13, p. 10)

¹¹ The limits for VOCs set forth in the Draft PSD Permit are identical to the limits in the Proposed CPA Approval. (Compare Table 7, pp. 34-35, Exhibit 25 and Table 2, p. 6, Exhibit 5.)

¹² The public notice was published in English, Spanish and Portuguese. (Exhibit 1, p. 27)

listed as a purpose of the Draft PSD Permit providing information on the project description, BACT, emission control systems, and facility limits. The public notice expressly stated that copies of the Draft PSD Permit and the application file may be reviewed at MassDEP's regional office.¹³ (Exhibit 8)

On September 23, 2013, the Petitioners, through their authorized representative, the Conservation Law Foundation (CLF), requested an extension of the public comment period. (Exhibit 9)¹⁴ In response to this request, MassDEP extended the public comment period from October 11, 2013 to November 1, 2013. MassDEP published notice of this extension on its website and in the *Environmental Monitor* on October 8, 2013.¹⁵ (Exhibits 10 and 11) Like the earlier notice, this second public notice expressly stated that the application file may be reviewed at MassDEP's regional office. (Exhibit 10) MassDEP held a public hearing on the Draft PSD Permit on October 10, 2013. MassDEP provided notice of the extension of the comment period at the public hearing. (Exhibit 11)¹⁶

¹³ MassDEP sent copies of the public notice to a number of individuals and organizations including the Petitioners' authorized representative. (Exhibit 11)

¹⁴ At the time of their extension request, the Petitioners were aware of the type of information contained in the permit application file. In their extension request, the Petitioners noted that the Draft PSD Permit was "based upon an application that has been supplemented through multiple amendments. ... These application materials contain *inter alia* complex, detailed analyses of air dispersion modeling, projected emission calculations from the facility and other information which require CLF to engage an expert to develop public comments." (Exhibit 9)

¹⁵ MassDEP also sent the second public notice to a number of individuals and organizations including the Petitioners' authorized representative. (Exhibits 11 and 16)

¹⁶ The Petitioners were present at the hearing. (Exhibits 17 and 18)

MassDEP made the Draft PSD Permit, the Draft PSD Fact Sheet, and the entire permit file available for public comment as set forth in the public notices.¹⁷ By letter dated September 18, 2013, MassDEP provided the Petitioners with a compact disc that contained the initial application and the additional submittals including the BACT analysis set forth therein. (Exhibit 12)¹⁸ On October 28, 2013, MassDEP delivered additional materials from the permit application file to the Petitioners. (Exhibit 15)

On November 1, 2013, the last day of the extended comment period, the Petitioners submitted highly detailed comments on the Draft PSD Permit.¹⁹ (Exhibit 18) In their comments, the Petitioners questioned the BACT analysis that MassDEP relied on to establish the limits in the Draft PSD Permit. The Petitioners claimed that the BACT analysis did not conform to EPA's 1990 NSR Manual.²⁰ The Petitioners identified applications and/or permits that they claim provide for more stringent limits for certain pollutants than the limits in the Draft PSD Permit. The Petitioners requested that an oxidation catalyst be added to the auxiliary boiler. With regard to the air quality modeling, the Petitioners questioned the use of background data from the Lynn monitors.

¹⁷ MassDEP gave the public the same opportunity to comment on the Proposed CPA Approval. (Exhibit 11)

¹⁸ Footprint also provided a compact disc with the application materials to the Petitioners' authorized representative. (Exhibit 19)

¹⁹ In their Comment Letter, the Petitioners acknowledged that they received additional information from MassDEP on October 28, 2013 in response to a Public Records Request and additional information from Footprint in regard to the air quality modeling. (Exhibits 15 and 18)

²⁰ In making this claim, the Petitioners ignore well-settled law acknowledging that strict application of the top down analytical method set forth in the NSR Manual is not mandatory. Instead, the BACT analysis must reflect a level of detail that is comparable to that set forth in the NSR Manual. *See In re Metcalf Energy Center*, PSD Appeal Nos. 01-07, 01-08, 2001 EPA App LEXIS 29 (August 10, 2001). The Petitioners also ignore the detailed analysis provided by Footprint in its application and the supplemental submissions that preceded the Draft PSD Permit as well as the detailed explanation set forth in the Draft PSD Fact Sheet. (Exhibits 4A-4H and Exhibit 5, pp.6-16)

MassDEP received comments that raised concerns about the air quality modeling used to show that the NO_x emissions from the SHR Project would not cause or contribute to a violation of the NO₂ NAAQS. MassDEP did not receive any comments on the statement it made in the Draft PSD Fact Sheet that the emissions of VOCs from the SHR Project are not subject to PSD review or Footprint's decision to use air-cooling rather than wet-cooling. (Exhibit 20)

EPA provided comments on the Draft PSD Permit and Draft PSD Permit Fact Sheet. In its comments, EPA recommended that MassDEP attach Footprint's BACT analysis as an appendix to the PSD Fact Sheet or provide a hyperlink that links the PSD Fact Sheet to Footprint's BACT analysis.²¹ EPA also advised MassDEP that the use of SILs²² alone as a screening tool to show compliance with the NAAQS may not be adequate. EPA noted that there may be locations where the background concentration is close to the NAAQS and the difference between the background ambient air concentration and the NAAQS is less than the concentration reflected in the relevant SIL. In these locations, a showing that the impacts of the proposed facility are below the relevant SIL may not be sufficient by itself to determine that the proposed construction would not cause or contribute to a violation of the NAAQS. EPA suggested that MassDEP compile information on the background concentrations in the areas where the project is located. EPA additionally stated that if this data shows that the difference between the NAAQS and

²¹ Although MassDEP did not physically attach a copy of Footprint's BACT analysis to the Draft PSD Fact Sheet, MassDEP made the BACT analysis and all the other materials in the application file available to the public at its regional office. (Exhibits 8, 10, 12 and 15)

²² SILs are numerical values that may be used to evaluate the impact a proposed major source may have on the NAAQS. 72 Fed. Reg. at 54,138. This numerical value measured in micrograms per meter cubed (ug/m³) is the level of ambient impact below which the EPA considers a source to have an insignificant impact on air quality. See 72 Fed. Reg. at 54,130.

background concentrations is greater than the applicable SIL, no additional modeling would be required to demonstrate compliance with the NAAQS.²³ (Exhibit 21)

On November 1, 2013, Footprint submitted a comment to MassDEP indicating that it had obtained an additional guarantee from its equipment vendor, General Electric (GE), and that as a result, the emission limits for PM/PM10/PM2.5 in the Draft PSD Permit could be reduced by approximately twenty-five percent²⁴ from 109.5 tons per year (tpy) to 82.0 tpy.²⁵ (Exhibit 22A) Footprint subsequently obtained a new guarantee from GE with regard to the emissions of carbon monoxide (CO) from the generating units. (Exhibit 22B)

On December 11, 2013, Footprint responded to certain comments that MassDEP had received during the public comment period. This response included an Emission Update and Prevention of Significant Deterioration Best Available Control Technology Report dated December 2013 (the "Revised BACT Report"). The Revised BACT Report updates the BACT analysis provided in the application and previous submissions to account for the new guarantees provided by GE with regard to CO and PM/PM10/PM2.5. The Revised BACT Report also takes into consideration the addition of an oxidation catalyst to the auxiliary boiler to control CO emissions and the resulting increase in H2SO4 mist emissions. The Revised BACT Report corrects certain errors in the earlier BACT analysis including an error that overstated the SHR Project's CO

²³ MassDEP required Footprint to conduct cumulative impact modeling of the impacts of the SHR Project's 24-hour emissions of PM2.5 and one-hour emissions of NOx and based on that modeling determined that these emissions would not cause or contribute to a violation of the NAAQS. EPA did not comment on that determination. (Exhibit 6, pp. 18-21, Exhibit 21)

²⁴ The hourly limit was reduced from 15.5 lbs per hour to 8.8 lbs per hour. (Exhibit 22A)

²⁵ Despite this reduction, the PM emissions from the SHR Project are subject to regulation under the PSD permit, because they exceed the significant emission rate threshold. See 40 CFR §52.21(b)(23)(i).

emissions during SUSD and provides additional information on the BACT limits in other permits for facilities with combined-cycle turbines. The Revised BACT Report provides additional support for the emission limits for GHGs and NOx in both the Draft PSD Permit and the Final PSD Permit. The Revised BACT Report also provides support for the more stringent limit for PM/PM10/PM2.5 and the revised limit for H2SO4 mist in the Final PSD Permit. (Exhibit 22B)

On January 10, 2014, Footprint submitted a letter with additional information addressing emissions of PM/PM10/PM2.5 during SUSD. (Exhibit 22C) On January 16, 17, and 21, 2014, Footprint submitted supplemental information addressing revised air quality modeling based upon the changes in emissions from the Draft PSD Permit to the Final PSD Permit. (Exhibit 22D-22F) Like the earlier modeling, the revised modeling relied on background concentrations based on data collected by the Lynn monitor. (Exhibits 22C-22F) MassDEP reviewed this information and determined that emissions from the SHR Project would not cause or contribute to a violation of the applicable NAAQS or exceed any applicable PSD increments. (Exhibit 1, pp. 19-24)

On January 30, 2014, MassDEP issued the Final PSD Permit, the Final PSD Fact Sheet²⁶ and the Response to Comments Document (“RTC”).²⁷ (Exhibit 20) As required by 40 CFR § 52.21(b)(49), the Final PSD Permit limits the emission of GHGs²⁸ and the regulated NSR pollutants that would be emitted at a significant rate: NOx, H2SO4 mist and PM/PM10/PM2.5.²⁹

²⁶ In light of the changes made from the Draft PSD Permit to the Final PSD Permit, MassDEP issued a Final PSD Permit Fact Sheet that explained the basis for the terms and conditions in the Final PSD Permit. (Exhibit 20, p.1)

²⁷ On January 30, 2014, MassDEP also issued a CPA Approval for the SHR Project in accordance with 310 CMR 7.02 and Appendix A. (Exhibit 11)

See 40 C.F.R. §§ 52.21(b)(23)(i), 52.21(b)(49), and 52.21(b)(50). Because of the new guarantee from GE, the Final PSD Permit contains more stringent limits for PM/PM10/PM2.5 than the Draft PSD Permit both during normal operations and during SUSD. Because of the addition of the oxidation catalyst to the auxiliary boiler, the Final PSD Permit contains a slightly higher limit for H2SO4 mist.³⁰ Unlike the Draft PSD Permit, the Final PSD Permit does not contain a limit for any NSR regulated pollutants that would not be emitted at a significant rate and that as a result would not be subject to PSD review including VOCs. Compare Table 2, Exhibit 24 with Table 2, Exhibit 5.

MassDEP responded to EPA's comments on the Draft PSD Permit. (Exhibit 20) As requested by EPA, MassDEP appended a copy of the BACT analysis submitted by Footprint to the Final PSD Fact Sheet and the RTC and included in the RTC a table that compared the background levels of each pollutant regulated by the PSD Permit for which a NAAQS and a SIL have been promulgated with the NAAQS and the SILs for that pollutant. (Exhibit 1, Exhibit 20, p.18 and Exhibit 1)

²⁸ The PSD Permit contained the following long-term limit for the emission of GHG from the generating units: a 365- day rolling average of 895 lb/MWhr with duct firing net to the grid. The PSD Permit also limited annual facility-wide emissions of GHGs to 2,279,530 tpy. (Exhibit 24, Table 2 pp. 5-7)

²⁹ The PSD Permit set the short-term limits for the emissions of PM/PM10/PM2.5 from the generating units as follows: without duct firing- 8.8 lb/hr, 0.0071lb/MMBtu, and 0.029lb MWhr; and with duct firing 13 lb/hr. 0.0062 lb/MMBtu and 0.041 lb/MWhr. The PSD Permit also sets a facility-wide, long- term limit of 82 tpy. (Exhibit 24, Table 2, pp.5-7)

³⁰ The emissions of H2SO4 mist from the SHR Project increased by 0.2 tpy while the emissions of CO from the SHR Project decreased by 18.4 tpy. Compare Table 2, Exhibit 5 with Table 2, Exhibit 24 and Table 7, Exhibit 25 with Table 7, Exhibit 23.

STANDARD OF REVIEW

When considering a petition for review of a PSD Permit, the Board must first determine whether the Petitioners have met their burden to show that the issues have been preserved for review. To meet this burden, the Petitioners must show that any issues being appealed were raised with reasonable specificity during the public comment period. *In re Endeck-Elwood, LLC*, 13 E.A.D. 126 (EAB 2006).

The Petitioners must also show that review is warranted, because the permit decision is based on a clearly erroneous finding of fact or conclusion of law. Alternatively, the Petitioners can demonstrate that the permit decision involves a matter of policy or exercise of discretion that warrants review by the Board. *See* 40 C.F.R. § 124.19(a)(4). *See also In re City of Palmdale*, PSD Appeal No. 11-07, slip op. at 9-10 (EAB, Sept. 17, 2012). In reviewing an exercise of discretion by the permitting authority, the Board applies an abuse of discretion standard. *See In re La Paloma Energy Center, LLC*, PSD Appeal No. 13-10, slip op. (EAB, March 14, 2014). In considering whether to grant or deny review of a permit decision under these standards, the Board is guided by the preamble to the regulations authorizing appeal under part 124, which provides that the Board's power to grant review "should be only sparingly exercised," and that "most permit conditions should be finally determined at the [permit issuer's] level." 45 Fed. Reg. 22,412.

ARGUMENT

I. The Board Should Deny Review of the Petitioners' BACT Claims.

New major sources are required to employ BACT to minimize emissions of the regulated pollutants. Clean Air Act (CAA) §165(a)(5), 42 U.S.C. § 7470, 40 C.F.R. 52.21(j)(2). The term “BACT” means an “emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems and techniques, including fuel cleaning, clean fuels or treatment or innovative fuel combustion techniques for control of each such pollutant.” CAA § 169(2), 42 U.S.C. § 7479(3); 40 C.F.R. § 52.21(b)(12). (similar regulatory definition). To establish the BACT limits that are appropriate for a particular facility, the permit issuer must proceed on a case-by-case basis taking a careful and detailed look, attentive to the technology or methods appropriate for the particular facility. *In re Northern Michigan University Ripley Heating Plant*, PSD Appeal No. 08-02, 2009 EPA App. LEXIS 5.

It is well settled that in setting BACT, permitting authorities are not required to impose the highest possible level of control efficiency but may take case-specific circumstances into consideration in determining what level is achievable for a given source. PSD Permit limits are not necessarily a direct translation of the lowest emissions rate that has been achieved by a particular technology at another facility. The limits must also reflect consideration of any

practical difficulties associated with using the control technology. Although permit issuers must evaluate the most effective level of control, they may exercise their discretion to require less effective levels of control. *In re La Paloma Energy Center, LLC*, PSD Appeal No. 13-10, slip op. at 18 (EAB, March 14, 2014); *In re Russell City Energy Ctr.*, PSD Appeal Nos. 10-01-10-05, slip op. at 77-81 (EAB, November 18, 2010); *In re Newmont Nev. Energy Inc. LLC*, 12 EAD 429, 441 (EAB, 2005).

The Petitioners challenge the BACT limits for PM/PM10/PM2.5 and GHGs during normal operations and NOx during SUSD on the ground that these limits do not represent the most stringent limit set forth in a previously issued permit. As set forth in the record, MassDEP had good reason to select these limits. In light of this information, the Petitioners have not shown and cannot show that MassDEP's selection of the BACT limits for these pollutants involves clear error, an abuse of discretion or an important policy issue that warrants Board review.

Accordingly, the Board should deny review of the BACT claims

A. The Record Strongly Supports the Limits for PM/PM10/PM2.5.

The Petitioners claim that MassDEP did not adequately explain its decision to select the short-term limit of 0.0071 lb/MMBtu for PM/PM10/PM2.5 that applies to the generating units without duct firing.³¹ This claim is without merit.

³¹ The Petitioners suggest that Footprint should have compared the Mitsubishi and GE turbines when determining BACT for PM/PM10/PM2.5 (Amended Petition pp.6-7). This suggestion is without merit. Footprint had good reason to choose the GE turbine because of its high efficiency. See Exhibit 4C. Moreover, Footprint was not required to compare different models of combined-cycle turbines. See *In re La Paloma Energy Center*, PSD Appeal No. 13-10 slip op. at 16 (EAB March 14, 2014) (BACT does not require a ranking of the different equipment models for each type of technology).

Footprint's BACT analysis, the PSD Fact Sheet and the RTC show that the challenged limit for PM/PM10/PM2.5 is well supported by the record. In the RTC, MassDEP notes that Footprint expects to operate the gas turbines in various operational configurations throughout the calendar year, experiencing seasonal fluctuations in ambient temperature, pressures and humidity, all of which have an effect upon gas turbine performance. To be responsive to the Independent System Operator-New England ("ISO-NE"), the SHR Project must be capable of operating at all seasonal conditions and responsive to various electric power demands. (Exhibit 20) In its BACT analysis, Footprint stated that the ability to operate at Minimum Emission Compliance Loads ("MECL") is important to the SHR Project's mission of providing a flexible and quick response to future power needs. (Exhibits 4A and 22B) Footprint provided updated performance data from GE that showed the PM/PM10/PM2.5 emissions that would be expected across the entire operating range, at various seasonal atmospheric conditions, including MECL conditions, when the emissions of PM/PM10/PM2.5 would be the highest. (Exhibit 22A) After carefully reviewing Footprint's BACT analysis, MassDEP concluded that the flexibility to operate at the MECL warrants the approval of the 0.0071 lb/MMBtu³² as BACT. (Exhibit 20, pp. 10-12)

Footprint's BACT analysis, the PSD Fact Sheet and the RTC explain why the challenged limit for PM/PM10/PM2.5 is different from the limits set forth in other PSD Permits. In its BACT analysis, Footprint points out that compliance with many of the limits for PM/PM10/PM2.5 in other permits including the Pioneer Valley Permit³³ is determined only under full load

³² The term "lb/MM/Btu" means pounds per million British thermal units higher heating value (HHV) basis. (Exhibit 24, p.9)

³³ The limits set forth in the Pioneer Valley Permit apply only at 100% load. It is interesting to note that the Pioneer Valley Permit also includes a 9.8 lb/hr limit, a limit that is 1lb/hr higher than the limit in the SHR Project PSD Permit. Compare Exhibit 26, p. 4 with Exhibit 24, Table 2 page 5.

conditions, whereas, compliance with the limits in the SHR Project PSD Permit will be determined over the entire operating range from MECL, 75% load, 100% load without duct firing, and peak 102% load with duct firing. Footprint also points out that although the Russell City Energy Center PSD Permit has more stringent limits than the SHR Project PSD Permit, the Russell City Energy Center PSD Permit uses a different methodology than the SHR Project PSD Permit for assessing compliance with those limits. Footprint further points out that several facilities including the Renaissance facility that have more stringent short-term limits when expressed in units of lb/MMBtu have limits that are less stringent when expressed in units of lb/hr.³⁴ In addition, many facilities including Pioneer Valley and Dominion have not yet commenced operation and thus there is no data demonstrating that compliance with the permit limits for these facilities is achievable. (Exhibit 1, p.11 Exhibit 22B, pp. 41-46, Exhibit 20, pp.10-12) Given this information, the Board should conclude that the record strongly supports the limit for PM/PM10/PM2.5 and deny review of the Petitioners' PM/PM10/PM2.5 claim

B. The Record Strongly Supports the GHG Limits.

The Petitioners claim that the record does not support the GHG limits in the PSD Permit. The Board should reject this claim.

³⁴ In the BACT analysis, Footprint notes that other facilities have higher lb/hr limits than set in the SHR Project PSD Permit including Langley, Gulch and Pondera King. (Exhibit 22B, p.46) The Oregon Energy Center also has a higher lb/hr limit than the lb/hr limit in the SHR Project PSD Permit. (Exhibit 22, p. 42)

The PSD Permit includes a facility-wide 365-day rolling average GHG limit of 895 pounds of Carbon Dioxide equivalents³⁵ per Megawatt hour of power delivered to the grid (895 lb CO₂e/MWhr) for the life of the facility with and without duct firing.³⁶ (PSD Permit, Table 2, p.5) The net output limit of 895 lb CO₂e/MWhr corresponds to a net heat rate of 7,521 Btu /kwhr. On a gross energy basis, these values are 862 lb CO₂e/MWhr and 7,247 Btu/kwhr.³⁷ (Exhibit 22B p. 55)

The 365-day rolling average net output limit of 895 lb CO₂e/MWhr accounts for operation at varying loads, during SUSD, with and without duct firing, and at varying temperatures. The net output limit of 895 lb/CO₂e/MWhr also accounts for the unavoidable performance degradation that occurs over the life of the facility.³⁸ The net output limit of 895 lb CO₂e/MWhr is also identical to the limit in the Pioneer Valley PSD Permit.³⁹ (Exhibit 24, Table 2, P.5)

³⁵ Carbon Dioxide equivalent (CO₂e) are calculated by multiplying for each of the six GHGs (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions in tpy by the gas's associated global warming potential published in Table A-1 of 40 C.F.R. Part 98, subpart A, and summing the six resultant values.

³⁶ EPA recommends that the emission limit for GHGs be expressed as an output-based limit. EPA makes this recommendation, because output-based standards provide a clear indicator of emissions performance, account for the emission impact of efficiency and allow regulators to more clearly compare emission performance. EPA further recommends the use of net output measures, because they more comprehensively account for energy efficiency than gross measures. EPA also recommends the use of 30-day or 365-day rolling averages for GHGs rather than shorter term averages such as 3 hours or 24 hours, since the environmental concern with GHGs is with their cumulative impact on the environment. *See PSD and Title V Guidance for Greenhouse Gases and Output Based Regulations: A Handbook for Air Regulators. See also In re LaPaloma Energy Center*, PSD Appeal No. 13-10, (EAB March 14, 2014) (approving use of limits expressed as a net output basis). MassDEP followed these recommendations, when it established a GHG emission limit based on net output to the grid expressed as a 365-day rolling average.

³⁷ The PSD Permit includes an initial design limit of 825 lb CO₂e/MWhr without duct firing. (PSD Permit Table 2, p. 5) This corresponds to a net heat rate of 6,940 Btu/whir. On a gross energy basis, these values are 795 lb CO₂e/MWhr and 6,688 Btu/kwhir. (Exhibit 22B, p. 55) Footprint is required to demonstrate compliance with this limit by means of an initial performance test to be conducted within 180 days of facility start-up. This test will be done at full base load without duct firing with the test results corrected to turbine ISO conditions. (Exhibit 24, p. 8, note 10)

³⁸ The net output limit of 895 lbs CO₂e/MWhr is lower than EPA's New Source Performance Standard also expressed as an output limit for natural gas fired combined-cycle turbines greater than 850 MMBtu of 1,000 CO₂e/MWhr. 79 Fed. Reg. No. 5 (January 2, 2014).

The record strongly supports MassDEP's decision to establish the net output limit of 895 lb CO₂e/MWhr. In its BACT analysis, Footprint notes that the most stringent control technology for control of GHGs from a combustion turbine combined-cycle unit is carbon capture and storage (CCS). Three components are needed for the implementation of CCS. First, the carbon must be captured, second it must be transported to a suitable disposal site, and third the carbon must be stored deep underground in a geological formation. In its BACT analysis, Footprint noted the lack of infrastructure to transport the GHGs to a suitable disposal site. Footprint also indicated that it was unable to identify any cases in which post-combustion controls including CCS have been used to control the GHG emissions from large natural gas-fired combined-cycle turbines. (Exhibit 22B, pp. 51-52) Based on this information, MassDEP determined that CCS is not feasible at the SHR Project site. (Exhibit 1, p. 13)

MassDEP noted that the plant would use natural gas, the lowest carbon emitting fuel for a fossil fuel plant and employ the highly efficient combined-cycle technology. (PSD Fact Sheet p. 13)

MassDEP acknowledged that the SHR Project included the F Class turbine and an air-cooling system rather than the more efficient G Class turbine and a wet-cooling system.⁴⁰ (Exhibit 1, pp.

³⁹ The Pioneer Valley facility is a 431 MW air-cooled combined-cycle generating facility that will rely on natural gas as its primary fuel and ultra low sulfur diesel oil as a backup fuel. The GHG emissions from the turbines at the Pioneer Valley facility were calculated using a lower emission factor (116 lb CO₂e /MMBtu) than the emission factor used to calculate the emissions from the turbines at the SHR Project (118.9 lb CO₂/MMBtu). If the emissions from the turbines at the Pioneer Valley generating facility were calculated using the same emission factor applied to the emissions from the SHR Project, the long-term GHG limit for Pioneer Valley would have been 2.6% less stringent than the limit for the SHR Project. (Exhibit 1, p.14)

⁴⁰ It is important to note that MassDEP did not receive any comments that suggest that Footprint should have selected the larger G Class turbine. To the extent that the Petitioners' claims that the GHG limits are not supported by the record relates to the specific class of the turbine, the Petitioners have not preserved this issue for review. *See In re Russell City Energy Center* PSD Appeal No 10-01, 10-02, 10-03, 10-04 and 10-05, (EAB, November 18, 2010). Even if the Petitioners had preserved this issue for review, MassDEP need not require Footprint to select the

13-15) Footprint explained the reason for these decisions. Footprint pointed out that unlike the G Class turbines, the F class turbines selected for the SHR Project are compatible with the existing high voltage switchyard and electrical interconnections infrastructure.⁴¹ (Exhibit 22B, pp. 53-54) Footprint selected an air-cooling system to avoid the impingement, entrainment and thermal impacts associated with once-through wet-cooling and the visible fog plume associated with mechanical draft wet-cooling.⁴² (Exhibit 22B, pp. 54-55)

The Petitioners correctly do not challenge these decisions. Instead, they point to permits for power plants comparable to the SHR Project such as the Brockton Power Plant that allegedly have more stringent limits and claim that MassDEP did not adequately explain its decision not to adopt these limits. This claim is without merit.

In the PSD Fact Sheet, MassDEP acknowledged the CPA Approval for the Brockton Power Plant has a nominal limit that appears to be more stringent than the limit in the SHR Project: 842

most efficient turbine regardless of size. Instead, MassDEP must establish a limit that reflects the lowest GHG emission level that can be achieved for the plant size selected by Footprint. *See In re LaPaloma Energy Center*, Appeal No. PSD 13-10 (EAB, March 14, 2013) (approving permit that ensures that the applicant is required to meet the lowest GHG level that is achievable with the turbine that is optimally sized for the particular capacity that the applicant ultimately selects within the size range specified in the application).

⁴¹ Given the existing infrastructure, it is reasonable to conclude that use of the G Class turbines may not be feasible at the proposed site.

⁴² In the approval to construct proceedings that preceded the issuance of the PSD Project, the EFSB approved the SHR Project with air-cooling. Since Footprint must build the facility approved by the EFSB, it may no longer be feasible to use wet-cooling for the SHR Project. It should also be noted MassDEP did not receive any comments on the issue of wet-cooling versus air-cooling and thus this issue has not been preserved for review. *See Russell Center Energy Center*, PSD Appeal No 10-01, 10-02, 10-03, 10-04 and 10-05 (EAB, November 18, 2010). In light of the EFSB decision, Footprint was not required to conduct a full evaluation of the facility with both cooling options as part of the BACT analysis. Moreover, it would have been inappropriate for MassDEP to require such an evaluation, since it would have constituted a redefinition of the source. *Id.* That being said, Footprint thoroughly evaluated both options in its initial BACT Analysis and in the Revised BACT Report. *See* pp. 5-10-5-11 of Exhibit 4A and Exhibit 22B, p.13.

lb CO₂e/MWhr 12-month rolling average for Brockton versus 895 lb CO₂e/MWhr 365-day rolling average for the SHR Project. MassDEP pointed out that the Brockton plant has not been built and, thus, there is no evidence that the Brockton Plant can meet the limits in the CPA Approval.⁴³ Nevertheless, MassDEP went on to explain the difference between the GHG limit in the SHR Project PSD Permit and the GHG limit in the Brockton CPA Approval. MassDEP noted that GHG emissions from the SHR Project were calculated with an emission factor 118.9 lb CO₂/MMBtu versus the GHG emissions from the Brockton Power Plant which were calculated with an emission factor of 117lb CO₂/MMBtu. If the Brockton emissions were calculated with the same emission factor as the emissions from the SHR Project, the Brockton emission limit would have been 856 lb CO₂e/MMBtu. In that case, the GHG emission limit for the SHR Project would only be 4.6% higher than the GHG emission limit for the Brockton Plant. MassDEP gave two reasons for this small difference. (Exhibit 1, p. 14) First, the SHR Project relied on air-cooling while the Brockton Plant relied on wet-cooling. As a result, the generating units included in the SHR Project would operate less efficiently than the units included in the Brockton Plant.⁴⁴ (Exhibit 1, p. 14) Second, the limits for the SHR Project expressly included an allowance for degradation of efficiency over the life of the plant.⁴⁵ No such expressed

⁴³ The Brockton CPA Approval has been appealed to MassDEP's Office of Appeals and Dispute Resolution. As a result of this appeal, the CPA Approval is not yet final. (Exhibit 28)

⁴⁴ At peak summer design conditions, air-cooling is 5% less efficient than once through wet-cooling and should be 2.5% less efficient than mechanical draft wet-cooling. At cooler temperatures the efficiency penalty is reduced to 1.5% and 1% respectively. See Exhibit 3, p. 36. See also Exhibit 22B, p. 54 citing a 1-5% drop in efficiency as a result of employing air-cooling rather than wet-cooling.

⁴⁵ According to the Pioneer Valley PSD Fact Sheet, the GHG limit in the Pioneer Valley PSD Permit assumes an allowance of 2.5% for efficiency degradation over the life of the facility. (Exhibit 27, p. 24)

allowance was cited in the Brockton CPA Approval with regard to the GHG limits for the Brockton Plant. (Exhibit 1, p 15)⁴⁶

In its BACT analysis, Footprint presented the GHG limits in 15 permits issued for combined-cycle projects over the last 15 years.⁴⁷ MassDEP reviewed this data and determined that almost all of the permits with GHG limits based on gross or net energy output delivered to the grid or a heat rate have GHG limits that are less stringent than or comparable to the GHG limit in the SHR Project PSD Permit.⁴⁸ In light of this analysis, the Board should conclude that the record strongly supports the GHG limits and deny review of the GHG claim.⁴⁹

⁴⁶ If adjustments are made for the approximately 1 -5% difference in efficiency resulting from the use of air-cooling rather than once through wet-cooling or mechanical draft wet-cooling and the 2.5% adjustment for efficiency degradation over the life of the facility, the GHG limit in the SHR Project PSD Permit and the GHG limit in the Brockton CPA Approval are roughly comparable.

⁴⁷ Some of the differences among the limits in the permits identified in the Revised BACT Report may be due to the different capacity of the generating units. *See In re LaPaloma Energy Center*, PSD Appeal No. PSD 13-10, (EAB, March 14, 2014). *See also* Exhibit 22B, p.53-54 (discussing difference between Class F and Class G Turbines).

⁴⁸ The net output limit of 895 lb CO₂e/MWhr is equivalent to a gross output limit of 862 lb CO₂e/MWhr (gross with and without duct firing including SUSD). As stated earlier, the GHG limit in the Pioneer Valley PSD Permit is identical to the GHG limit in the SHR PSD Permit. The following facilities have GHG output limits expressed that are less stringent or roughly comparable to the GHG limit in the SHR PSD Permit: Carroll County Energy Facility, 859 lb CO₂e/MWhr without duct firing; Renaissance Power, 1,000 lb CO₂e/MWhr; Hess Newark Energy Center, 887 lb CO₂e/MWhr; Deer Park, 920 lb CO₂e/MWhr (net). Expressed as a heat rate, the SHR Project PSD Permit contains a net limit of 7,521 Btu/kwhr and a gross limit of 7,363 Btu/kwhr. The following facilities have less stringent or roughly comparable heat rate limits: Green Energy, 7,880 Btu/kwhr (gross with duct firing); Brunswick County, 7,500 Btu/kwhr net at full load and corrected to ISO conditions with duct firing); Garrison Energy Center, 7,717 Btu/kwhr (net); St. Joseph Energy Center, 7,646 Btu/kwhr; Hess Newark Energy, 7,522 Btu/kwhr (net); Cricket Valley 7,606 Btu/kwhr without duct firing; Russell City 7,730 Btu/kwhr. (Exhibit 22B, pp.42-44)

⁴⁹ Footprint has agreed to implement several measures to reduce the amount of energy it consumes on-site. These measures include the construction of a solar array as well as an operations building and an administration building that include many energy saving features. (Exhibit 25, pp. 56-57)

C. The Record Strongly Supports the SUSD Limits For NOx.

The Petitioners claim that the record does not adequately explain the NOx emission limits applicable during SUSD. The Board should reject this claim.

The SHR Project PSD Permit contains a NOx limit of 89 lbs for each start-up event and 10 lbs for each shut-down event. (Exhibit 24, Table 2, p.5) In the RTC, MassDEP explains that the SCR catalyst that controls NOx emissions from the generating units is not effective until the units reach and maintain a temperature in the range of 550 to 650 degrees Fahrenheit. Before the units reach this temperature range, NOx is emitted uncontrolled. Without effective controls, NOx emissions may amount to 93.5 lbs an hour during a cold start.⁵⁰ (Exhibit 20, p.13) In its BACT analysis, Footprint indicates that there is one method to reduce NOx emissions during SUSD, and that is to reduce SUSD time. (Exhibit 22B, p. 61) Footprint has implemented that method by selecting quick-start technology.

The Petitioners do not question Footprint's use of quick-start technology. Instead, they question the specific SUSD NOx emission limits in the PSD Permit. They claim the NOx SUSD limits in the SHR Project PSD Permit are higher than the NOx SUSD in the Brockton CPA Approval (31.6 lbs/hr for start-up and 29.8 lbs/ hr for shut-down) and the 2008 Determination of Compliance issued for the El Segundo Plant (24-25 lb per start-up event and 7 lb per shut-down event). (Exhibits 14 and 29) The Petitioners note that both of these facilities use a Siemens generating unit rather than the GE unit selected by Footprint and suggest that Footprint should have fully evaluated both models in its BACT analysis. This suggestion is without merit.

⁵⁰ Cold starts last 45 minutes. Footprint indicated that there would be no more than 13 cold starts in a year. (Exhibit 20, p.13)

In *re LaPaloma Energy Center*, Appeal No. PSD 13-10, (EAB, March 14, 2013), the Sierra Club claimed that a full evaluation of various models of generating units should have been included in the BACT analysis that supported the GHG limits in the PSD Permit. The Board found no support in EPA's BACT guidance that various models must be identified as separate control technologies in the BACT analysis and denied review of this claim. The Board should take the same approach in this case and rule that EPA Guidance does not require a full evaluation of various models of combined-cycle turbines as part of the BACT analysis for NO_x SUSD emissions, and deny review of the Petitioners' NO_x SUSD claim.

Although not required as a part of a BACT analysis, Footprint performed a comparative analysis of the SUSD NO_x emissions that would result from the Siemens and GE units. *See* Exhibit 4C. This analysis documents that performance data for the Siemens generating unit has been updated to include a start-up NO_x emission of 83 lbs over a period of 45 minutes. In light of this new information, Footprint determined that the Siemens generating unit no longer has an advantage over the GE unit when it comes to NO_x emissions during SUSD. Moreover, this new data is reflected in the most recent permit issued to the El Segundo Plant which contains a NO_x limit of 112 lbs/hr. (Exhibit 30) In light of this information, the Board should conclude that the Petitioners have not shown and cannot show that the NO_x emission limit for SUSD involves clear error, an abuse of discretion or an important policy issue that warrants Board review, and deny review of the NO_x claim.

II. The Board Should Reject the Petitioners' Request to Reopen the Public Comment Period.

The Petitioners request that the Board remand this case to MassDEP so that they can review and comment the BACT analysis. The Petitioners make this request although they have had a full opportunity to review and comment on that analysis.

During the comment period as stated in the public notice, MassDEP made Footprint's initial BACT analysis⁵¹ available to the public including the Petitioners. By letter dated September 18, 2013, MassDEP provided the Petitioners with a compact disc that contained the initial application and the additional submittals including the BACT analysis set forth therein. (Exhibit 12) On October 28, 2013, MassDEP delivered additional materials from the permit application file to the Petitioners (Exhibit 15). On November 1, 2013, the Petitioners submitted detailed written comments criticizing the BACT analysis for the SHR Project. (Exhibit 18) These comments demonstrate that the Petitioners had ample opportunity to review the BACT analysis submitted with the application along with the supplemental analysis submitted by Footprint prior to issuance of the Draft PSD Permit.⁵² The Board should therefore conclude that the requested remand is unnecessary.

The fact that Footprint submitted the Revised BACT Report after the comment period closed does not alter this conclusion. In *re Metcalf Energy Center*, PSD Appeal No. 01-07 and 01-08

⁵¹ Footprint's initial BACT analysis included the BACT analysis submitted with the application as updated in Footprint's submittals dated April 12, 2013, June 10, 2013, August 6, 2013, August 20, 2013, and September 9 2013. (Exhibits 4A-4H)

⁵² At the April 1, 2014 Status conference, the Petitioners' attorney acknowledged that these comments show that the Petitioners had reviewed Footprint's BACT analysis during the public comment period.

2001 EPA App. LEXIS, August 10, 2001, the Petitioner claimed that the permit issuer erred by performing a top-down BACT analysis after the close of the public comment period, accepting a supplemental BACT analysis from the permit applicant, and failing to reopen the comment period on these new materials. The Board rejected that claim. The Board noted that a permitting agency is expressly authorized to compile new materials in an effort to respond to comments on a draft permit. 40 C.F.R. § 124.17. Such new information may include information from the applicant. The Board found no error in the permit issuer's decision to respond to comments by incorporating the applicant's supplemental top-down BACT analysis into its own analysis. The Board likewise found no error in the permit issuer's decision to issue the final PSD Permit without reopening the public comment period to accept input on the new BACT materials. The Board acknowledged that a permit issuer has discretion under 40 C.F.R. §124.14(b) to reopen a comment period if the information raises substantial new questions. The Board also acknowledged the deferential nature of this standard; the Board generally leaves it to the sound discretion of the permit issuer to decide whether to reopen the comment period. *See In re Cape Wind Associates*, OCS Appeal No. 11-01, 2011 EPA App. LEXIS 19 (May 20, 2011); *In re City of Palmdale*, PSD Appeal No. 11-07, 2012 EPA App. LEXIS 29 (September 17, 2012); *In re Dominion Energy Brayton Point, LLC*, NPDES Appeal No, 07-01, (September 27, 2001). In *Metcalfe Energy Center*, the Board applied this highly deferential standard and determined that although the BACT analysis contained new information, it did not raise any substantial new questions.

The Board should take the same approach in this case. Like the supplemental BACT Report in *Metcalfe Energy Center*, the Revised BACT Report in this case contains new information about

the recently obtained guarantees from GE pertaining to CO and PM/PM10/PM2.5 emissions. (Exhibit 22B, Appendix A) The Revised BACT Report also contains new information about the addition of the oxidation catalyst to the auxiliary boiler to control CO and the resulting increase in H2SO4 mist emissions. (Exhibit 22B, pp. 65-67 and p.70) The Revised BACT Report additionally contains new information about the BACT limits in other recently issued permits, information that supports the emission limits for GHGs and NOx in both the Draft and Final PSD Permits and the modified limits for PM/PM10/PM2.5 and H2SO4 mist in the Final PSD Permit. (Exhibit 22B, pp.41-49, pp. 55-58)

Like the supplemental BACT analysis in *Metcalf Energy Center*, the Revised BACT Report in this case does not raise any substantial new questions. To the contrary, the Revised BACT Report responds to concerns raised by the Petitioners in their comments about whether the limits for PM/PM10/PM2.5 are stringent enough and whether the numerical limits in the Permit are indeed BACT. To the extent that these questions persist, the Petitioners' remedy is this appeal, not a reopening of the comment period. *See Metcalf Energy Center*, quoting 45 Fed. Reg. 33,290,33,412 (May 19, 1980) ("If all new material in a response to comments required reproposal, the agency would be put to the unacceptable choice of either providing an unacceptable response to embarking on the same kind of endless cycle of reproposals [that] the courts have already rejected.") As in *Metcalf Energy Center*, the Board should conclude that MassDEP did not abuse its discretion in deciding to issue the Final PSD Permit without reopening the public comment period.

The Board's decision in *Dominion Energy Brayton Point, LLC*, NPDES Appeal No 07-01, (EAB, 2007), supports that conclusion. In that case, the Board noted that there are additional considerations that may inform a permit issuer's decision to reopen the record including whether permit conditions have been changed; whether new information or new permit conditions were developed in response to comments received during prior proceedings for the permit; whether the record adequately explains the agency's reasoning so that a dissatisfied party can develop a permit appeal; and the significance of adding a delay to the particular permit proceeding. Many of these factors are present in this case. New conditions relative to PM/PM_{2.5}/PM₁₀ and H₂SO₄ mist were developed in direct response to comments about the stringency of the PM/PM₁₀/PM_{2.5} limits in the Draft PSD Permit and the need for an oxidation catalyst on the auxiliary boiler. (Exhibit 18, Exhibit 24, Table 2, p. 5) MassDEP fully explained its reasoning in the Final PSD Fact Sheet and RTC so that the Petitioners could develop this appeal. Moreover, the delay caused by a remand would be significant. Evidence submitted during the state environmental review process shows that the SHR Project is needed to ensure a reliable source of energy for the NEMA/Boston Region in the 2016-2017 capacity year. (Exhibit 2, p. 8) Given these considerations, the Board should conclude that the Petitioners have not shown that MassDEP's decision to issue the Final PSD Permit without reopening the comment period involves clear error, an abuse of discretion or an important policy issue warranting Board review. The Board should reject the Petitioners' remand request.

III. The Record Strongly Supports the Use of Air Quality Data Collected by the Lynn Monitor to Fulfill the Pre-Construction Monitoring Requirement.

The Petitioners claim that the record does not support the use of the existing air quality data collected by the Lynn monitor to establish background air quality conditions at the site. In making this claim, the Petitioners acknowledge that the NSR Manual⁵³ expressly authorizes the use of existing ambient air quality data to establish background conditions if this data is representative of the air quality at the site.⁵⁴ Relying on the NSR Manual, the Petitioners further acknowledge that in determining whether existing ambient air quality data is representative of air quality at the site, the permitting agency should consider such factors as the monitor location, the quality of the data and whether the data is current. The Petitioners focus on one of these factors - the location of the Lynn monitor in relation to the SHR Project Site. More specifically, the Petitioners claim that MassDEP's decision to use data from the Lynn monitor location is not in compliance with EPA's Ambient Monitoring Guidelines.⁵⁵ This claim is without merit.⁵⁶

⁵³ As used in this Response, the term "NSR Manual" refers to the draft *New Source Review Workshop Manual* prepared by the EPA Office of Air Quality Planning & Standards in October 1990. (Exhibit 33)

⁵⁴ EPA has long implemented the PSD program pursuant to the understanding that representative data may be substituted for on-site monitoring where circumstances warrant. *In re Northern Michigan University Heating Plant*, PSD Appeal No. 08-02, slip op. at 58 (February 18, 2009). *See also* Exhibit 33 at p. 11. The source must use existing representative air quality data or collect monitoring data." *See* 52 Fed. Reg. 24,573, 24,686 (July 1, 1987), (Exhibit 35 at 2)

⁵⁵ The term "Ambient Monitoring Guidelines" refers to the *Ambient Monitoring Guidelines for Prevention of Significant Deterioration*, EPA-450.4-80-012 November 1987. (Exhibit 35) The Ambient Monitoring Guidelines provide that existing monitoring data may be used if they are representative of the location of the maximum concentration increase from the proposed source, the location of the maximum air pollutant concentration from existing sources, and the location of the maximum impact area resulting from existing sources plus proposed facility. The Ambient Monitoring Guidelines state that a permitting agency may use data from monitors located outside all three of these locations and provide three examples of cases when a permitting authority may do so. The Ambient Monitoring Guidelines make it clear that those examples are provided solely for illustrative purposes to clarify EPA's intent regarding the use of existing monitoring data. (Exhibit 35, p. 3, pp. 6-8)

⁵⁶ The Petitioners claim that the decision to use the existing data is inconsistent with the Ambient Monitoring Guidelines. In making this claim, the Petitioners ignore language in the Ambient Monitoring Guidelines that state that permitting authorities should make the decision to use existing monitoring data on a case-by-case basis.

It is well settled that the choice of appropriate data sets for the air quality analysis is an issue left largely to the discretion of the permitting authority. In *re Knauf Fiber Glass*, 8 E.A.D.125, 141 (EAB, 1999). In *re Hibbing Taconite Co.*, 2 E.A.D. 838, 861 (EAB 1989). Guidance documents such as the Ambient Monitoring Guidelines simply identify the factors a permitting agency may consider when evaluating the need for on-site data collection. These guidance documents do not dictate exactly when an applicant must collect on-site data in place of the existing data collected by nearby air quality monitors. Moreover, the Board tends to support a permitting authority's technical judgment on this issue provided that the record adequately supports that judgment. See *In re Pio Pico Energy Center*, PSD Appeal No 12-04-12-06 2013, EPA App. LEXIS 30 (August 2, 2013).

In this case, the record strongly supports MassDEP's decision to allow use of the data collected by the Lynn monitor. Indeed, MassDEP thoroughly explained its decision in the Draft PSD Fact Sheet, the RTC and the Final PSD Fact Sheet. (Exhibit 6, pp. 18- 19, Exhibit 20, pp. 17-18, Exhibit 1, pp. 20-21) The Lynn monitoring site is located approximately 5.9 miles to the southwest of the SHR Project site and is therefore the closest monitoring station. The Lynn monitoring data includes the most recently available data from calendar years 2010, 2011, and 2012. The Lynn monitor is located on the southeast perimeter of the Lynn Woods Reservation and, as a result, there are few air contaminant sources near the monitor. The SHR Project site is located adjacent to Salem Harbor, a large water body with few air contaminant sources nearby. Because the Lynn monitor is located closer to metropolitan Boston than the proposed SHR Project site, any emissions from sources located in and around Boston that may be transported to

the SHR Project site by south, southwesterly winds would first pass over the Lynn monitor before they arrive at the SHR Project site, and thus would be included in the Lynn monitoring data.

In the RTC and the Final PSD Fact Sheet, MassDEP also pointed out that the ambient air quality data collected by the Lynn monitor may actually overestimate background concentrations of air pollutants at the SHR Project site. During periods of prevailing north and northeast winds, the Lynn monitoring data from 2010 -2012 included emissions from the existing coal-fired power plant currently located on the SHR Project site, a plant that will shut down in 2014.

Moreover, the Lynn monitor has the potential to capture higher concentrations of pollutants than a hypothetical on-site monitor. The Lynn monitor measures regional air pollution that is transported from more highly populated and industrialized areas upwind within and beyond Lynn and thus has the potential to measure higher pollutant concentrations from an area that is more industrial and densely populated than a hypothetical monitor located on the SHR Project site.

In the RTC and Final PSD Fact Sheet, MassDEP also noted that use of the Lynn monitoring data may also cause the interactive air quality modeling to overestimate the impact of the proposed SHR Project. MassDEP pointed out that the GE Aircraft Engine Facility and the Wheelabrator Saugus waste-to-energy facility, two major industrial sources modeled cumulatively with the proposed SHR Project site, are located closer to the Lynn monitor than the SHR Project site. In particular, MassDEP noted that the air quality modeling which includes background ambient concentrations based on data from the Lynn monitor and interactive impacts from existing major sources could double-count the contribution of these sources and thus overestimate the

cumulative impact of the SHR Project. In light of the highly detailed explanation in the RTC and the PSD Fact Sheet, the Board should conclude that the Petitioners have not shown and cannot show that MassDEP's decision to allow the use of the Lynn monitoring data involves clear error, an abuse of discretion or an important policy issue that warrants Board review.

The fact that MassDEP stated on page 18 of its RTC that the PSD regulations allow proposed sources to use existing monitoring data in lieu of PSD preconstruction monitoring requirements if the source can demonstrate that its impact is below the significant monitoring concentration (SMC),⁵⁷ does not alter this conclusion. In making this statement, MassDEP acknowledged that the D.C Circuit's decision in *Sierra Club v. EPA*, 705 F.3d 458 (D.C. Cir. 2013)⁵⁸ advised permitting agencies not to rely on the PM2.5 SMC to avoid compiling air quality monitoring data. MassDEP followed the Court's advice and did not rely on the PM2.5 SMC to exempt Footprint from pre-construction monitoring of PM2.5. In accordance with EPA Guidance, MassDEP allowed the use of the existing air quality data from the Lynn monitor to fulfill the preconstruction monitoring requirement for PM2.5, because the Lynn monitoring data is representative of air quality at the SHR Project site. (RTC pp. 18-19) *Cf. In re Sierra Pacific Industries (Anderson Processing Facility)* PSD Appeal Nos. 13-01, 13-02, 13-03 & 13-04, 2013 EPA App. LEXIS 22 (July 18, 2013) (allowing use of existing ambient monitoring data that is representative of air quality at the site to fulfill pre-construction monitoring data requirement after *Sierra Club v. EPA*). MassDEP also relied on existing air quality data from the Lynn

⁵⁷ An SMC is a de minimis air quality concentration that, prior to the Court's decision in *Sierra Club v. EPA*, 705 F.2d 458 (D.C. Cir. 2013) had been used for the purpose of providing a possible exemption from air monitoring requirements. See 45 Fed. Reg. 62,676, 62,707 (Aug. 7, 1980). See also *In re Sierra Pacific Industries (Anderson Processing Facility)*, PSD Appeal Nos. 13-01, 13-02, 13-02, 13-03, & 13-04, 2013 EPA App. LEXIS 27 (July 18, 2013).

⁵⁸ In *Sierra Club v. EPA*, 705 F. 3d 458 (D.C. Cir 2013), the Court vacated the SMC for PM2.5.

monitor to fulfill the pre-construction monitoring requirement for PM10 and NO2.⁵⁹ The Board should therefore deny review of the Lynn monitor claim.

IV. The Record Strongly Supports MassDEP's Determination That the Emissions from the SHR Project Will Not Cause or Contribute to a Violation of the NAAQS.

Relying on Sierra Club v. EPA, 705 F.3d 458 (3d Cir. 2013), the Petitioners allege that MassDEP improperly relied on the Significant Impact Levels (SILs) when it determined that the emissions of PM10, PM2.5 and NO2 would not cause or contribute to a violation of the NAAQS. This allegation is without merit.

In *Sierra Club v. EPA*, the EPA asked the Court to vacate and remand the provisions of the air pollution regulations that exempt sources from the requirement to perform cumulative impact modeling⁶⁰ of their PM2.5 emissions if their PM2.5 impacts are below the SILs so that EPA could modify these provisions. In making this request, EPA acknowledged that in some cases such as when background concentrations of PM2.5 are very close to the NAAQS, it may not be sufficient to base a determination that the source's PM2.5 emissions would not cause or contribute to a violation of the NAAQS solely on the fact that the PM2.5 impacts are below the SILs.⁶¹ EPA acknowledged that in such a situation, additional cumulative impact modeling may

⁵⁹ MassDEP took the same approach with regard to PM10 and NO2 although the Court in *Sierra Club v. EPA*, 705 F. 3d 458 (D.C. Cir 2013) did not invalidate the SMC for these contaminants.

⁶⁰ Cumulative impact modeling considers the combined impact of the proposed source and other sources in the affected area to determine whether the emissions from a source will cause or contribute to a violation of the NAAQS. (Exhibit 33, p. 14)

⁶¹ EPA recognized that an impact below the SILs may cause or contribute to an air quality problem in some circumstances. EPA also recognized that the existing regulations, 40 C.F.R §§ 51.166(k)(2) and 52.21(k)(2), did not give permitting authorities sufficient flexibility to exercise discretion and require additional cumulative modeling to address this possibility. EPA requested that the Court remand and vacate these provisions so that EPA could take corrective action, and the Court granted this request. *See*. Exhibit 33 at p. 14.

be needed to determine whether the source's emissions would cause or contribute to a violation of the NAAQS. After evaluating EPA's rationale, the Court granted EPA's request and vacated the provision of the regulations that automatically exempt sources whose PM2.5 impacts are below the SILs from the cumulative impact modeling requirement.⁶²

EPA subsequently published a question and answer document to advise permitting authorities how applicants should model the impacts of PM2.5 in light of *Sierra Club v. EPA*. In that document, EPA stated that if the ambient air monitoring data show that the difference between the PM2.5 NAAQS, and the monitored PM2.5 background concentration is greater than the PM2.5 SILs values, it would be sufficient in most cases for the permitting authority to conclude that a source with a PM2.5 impact below the applicable SIL would not cause or contribute to a violation of the PM2.5 NAAQS and that a more comprehensive modeling analysis for PM2.5 was unnecessary. (Exhibit 34)

In the Draft PSD Fact Sheet in this case, MassDEP explained that it determined that the impact of the SHR Project's 24-hour emissions of PM10, annual emissions of PM2.5 and annual emissions of NO2 would not cause or contribute to a violation of the NAAQS based on the fact that the modeled impacts of those emissions were below the applicable SILs.⁶³ (Exhibit 5, pp.

⁶² The Court's decision in *Sierra Club v. EPA*, 705 F.3d 458 (D.C. Cir. 2013) does not preclude all use of SILs as part of a demonstration that a source will not cause or contribute to a violation of the PM2.5 NAAQS provided that the level of emissions and background are low enough that there is little risk that the below SILs emissions of PM2.5 would cause or contribute to a violation of the NAAQS. See Exhibit 33.

⁶³ MassDEP determined that the 24-hour emissions of PM2.5 and the one-hour emissions of NOx were above the applicable SILs and required Footprint to perform cumulative impact modeling. This modeling showed that the cumulative impact of the 24-hour PM2.5 emissions plus background and the cumulative impact of the one-hour NOx emissions plus background would not cause or contribute to a violation of the applicable NAAQS. (Exhibit 5, pp. 18-22)

18-19) In its comments on the Draft PSD Permit, EPA asked MassDEP to compile information on the background concentrations of these pollutants. EPA repeated the advice set forth in the question and answer document that if the difference between the NAAQS and background concentration levels is greater than the SIL, the permitting agency could conclude that impacts below the applicable SIL would not cause or contribute to a violation of the NAAQS without requiring additional modeling of the cumulative impacts. (Exhibit 21)

In response to EPA's comments, MassDEP performed the requested compilation of the background concentration and determined that the difference between background concentrations and the NAAQS was substantially greater than the SILs for PM2.5, PM10 and NO2. (Exhibit 20, p. 18) Consistent with EPA's question and answer document and the EPA comments, MassDEP reaffirmed its earlier determination that the SHR Project's 24-hour emissions of PM10, annual emissions of PM2.5 and annual emissions of NO2 would not cause or contribute to a violation of the NAAQS, since these emissions were below the SILs.⁶⁴

Despite this analysis, the Petitioners claim that MassDEP improperly relied on the SILs when it determined whether the emissions from the SHR Project would cause or contribute to a violation

⁶⁴MassDEP determined that the SHR Project's impact were below the SILs applicable to the annual emissions of PM2.5, the 24-hour emissions of PM10, and the annual emissions of NO2. With regard to each pollutant, the difference between the background concentration and the NAAQS was substantially greater than the applicable SIL, MassDEP therefore determined that the SHR Project's annual emissions of PM2.5, 24-hour emissions of PM10 and annual emissions of NO2 would not cause or contribute to a violation of the applicable NAAQS without requiring cumulative impact modeling. (Exhibit 20, p. 18)

MassDEP determined that the impacts of the SHR Project were above the SILs applicable to the 24-hour emissions of PM2.5 and one-hour emissions of NO2. Consequently, MassDEP required Footprint to perform cumulative modeling of these impacts. This modeling showed that the cumulative impact of the SHR Project's 24-hour PM2.5 emissions plus background and the cumulative impact of the one-hour NO2 emissions plus background would not cause or contribute to a violation of the applicable NAAQS. (Exhibit 1, pp. 19-22)

of the NAAQS. In *re Sierra Pacific Industries*, PSD Appeal Nos. 13-01, 13-02, 13-03, & 13-04, (EAB, July 18, 2013), the Board rejected a similar claim challenging a permitting agency's conclusion that the source's PM_{2.5} emissions at below SIL levels would not cause or contribute to a violation of the NAAQS. In *Sierra Pacific Industries*, the Board noted that both the facility's emissions and the background levels were so low that the permitting agency determined there was no danger of a violation of the NAAQS. The project did not present the situation discussed in *Sierra Club v. EPA* in which existing air quality in the affected area is so close to the NAAQS that a source with an impact below the PM_{2.5} SILs could cause or contribute to a violation of the NAAQS. The Board denied review of the PM_{2.5} claim.

The Board should take the same approach in this case. As in *Sierra Pacific Industries*, the 24-hour emissions of PM₁₀, annual emissions of PM_{2.5}, and annual emissions of NO₂ from the SHR Project are so low that there is little risk that an impact below the SILs could cause a violation of the NAAQS. Consistent with *Sierra Pacific Industries*, the Board should determine that MassDEP properly concluded that the SHR Project's emissions would not cause or contribute to a violation of the NAAQS for 24-hour PM₁₀, for annual emissions of PM_{2.5} and NO₂ without requiring cumulative impact modeling.

The modeled impact of the SHR Project's 24-hour PM_{2.5} emissions and one-hour NO₂ emissions exceeded the applicable SILs at one receptor for PM_{2.5} and two receptors for NO₂ out of the 3,361 receptors used in the cumulative modeling. (Exhibit 31) As a result, Footprint performed cumulative impact modeling. This modeling showed that the SHR Project's 24-hour PM_{2.5} emissions and one-hour NO₂ emissions would not cause or contribute to a violation of

the applicable NAAQS. Moreover, the cumulative impact modeling for one-hour NO₂ relied on a contribution analysis that showed no violation of the NAAQS at receptors where the SHR Project's contribution was "significant" (i.e. the portion of the total impact was above the one-hour NO₂ SIL). (Exhibit 31) Nevertheless, the Petitioners speculate that there may be receptors where the modeling predicts a violation of the one-hour NO₂ NAAQS and the SHR Project's impact at those receptors is just below the SIL. In light of this possibility, the Petitioners rely on *Sierra Club v. EPA* to request that the Board remand this case to MassDEP to determine whether the SHR Project's impacts are causing or contributing to a violation of the one-hour NO₂ NAAQS. The Board should reject that request for two reasons.

First, the Court in *Sierra Club* did not vacate 40 C.F.R. § 51.165(b)(2), the provision of the regulations that EPA has interpreted to support the conclusion that a source with an impact below the SIL does not significantly contribute to a model-predicted violation based on a cumulative analysis. Accordingly, permitting agencies may continue to consider the applicable SIL when evaluating the cumulative impact modeling to determine whether a prospective source would cause or contribute to a violation of the NAAQS. *See* Exhibit 33 at p. 52.

Second, MassDEP properly considered the applicable SIL when it evaluated the cumulative impact modeling for one-hour NO₂ in this case. A review of the cumulative impact modeling data shows that the highest impact of the SHR Project's emissions at a receptor with a modeled violation of the one-hour NO₂ NAAQS (213 ug/m³ versus NAAQS 188 ug/m³) is 4.7 ug/m³. This impact is substantially below the applicable SIL of 7.5 ug/m³ and is de minimis when compared to both the NAAQS and the modeled NAAQS violation. (Exhibit 31) In these

circumstances, the Board should conclude that the Petitioners have not shown and cannot show that MassDEP erred in determining that the below SIL impacts did not cause or contribute to a violation of the one-hour NAAQS and deny the Petitioners' remand request.

V. The Petitioners Have Not Preserved Their VOC Claim for Review.

In the Draft PSD Fact Sheet, MassDEP stated that the SHR Project would emit 24 tpy of VOCs. (Draft PSD Fact Sheet p. 7) MassDEP noted that the significant emission rate, the threshold for PSD review established by EPA, is 40 tpy. *See* 40 C.F.R. § 52.21(23)(i). As a result, MassDEP determined that the emissions of VOCs from the SHR Project are not subject to PSD review. During the public comment period, MassDEP received no comments questioning this determination. (RTC)

In the Amended Petition, the Petitioners challenge MassDEP's VOC PSD applicability determination for the first time. The Petitioners have not shown and cannot show that this issue has been a subject of public comment and thus has been preserved for review as required by 40 C.F.R. 124.13⁶⁵ and 124.19(a).⁶⁶ The Board should therefore deny review of the VOC claim. *See In re Endeck-Ehwood, LLC*, 13 E.A.D. 126 (EAB, 2006). *See also In re Christian Care Generation LLC*, 13 E.A.D. 449, 459 (EAB 2008) ("The regulatory requirement that a petitioner must raise issues during the public comment period is not an arbitrary hurdle placed 'in the path

⁶⁵ 40 C.F.R. § 124.13 provides in relevant part that all persons who believe that a tentative decision to issue a permit is inappropriate "must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period."

⁶⁶ 40 C.F.R. § 124.19(a) provides in relevant part that a petition for review shall include "a demonstration that any issues being raised were raised during the public comment period." The Petitioners did not make this demonstration.

of potential petitioners simply to make the process of review more difficult; rather it serves an important function related to the efficiency and integrity of the overall administrative scheme.”” (quoting, *In re BP Cherry Point*, 12 E.A. D. 209, 219 (EAB, 2005)).

VI. MassDEP Correctly Determined that the VOC Emissions from the SHR Project Are Not Subject to PSD Review.

40 C.F.R. § 52.21(b)(50) expressly provides that VOCs and NOx are ozone precursors in all attainment and unclassifiable areas. 40 C.F.R. § 52.21(b)(23)(i) establishes a significant emission rate of 40 tpy, a rate that triggers PSD review for each of these ozone precursors in areas that are in attainment or unclassifiable for ozone.⁶⁷ Relying on 40 CFR § 52.21(b)(23)(i), the Petitioners claim that MassDEP’s decision that the emissions of VOCs from the SHR Project are not subject to PSD review is erroneous. To support their claim, the Petitioners point to the 144.8 tpy of NOx that will also be emitted from the SHR Project and argue that MassDEP should have added these NOx emissions to the SHR Project’s VOC emissions, before it determined whether the VOC emissions are above the significant emission rate and therefore subject to PSD review. This claim is without merit.

Under the Petitioners’ approach, any amount of VOC emissions from the SHR Project, even as little as one tpy or less, could be subject to review, since the SHR Project’s NOx emissions alone at 144.8 tpy are well above the 40-tpy threshold. EPA has not interpreted its regulations to compel such an absurd result. To the contrary, EPA has consistently interpreted 40 C.F.R. § 52.21(b)(23)(i) to provide that VOCs are subject to PSD review only if the source emits at least

⁶⁷ More specifically, 40 C.F.R. § 52.21(b)(23)(i) provides that the significant emission rate for ozone is “40 tpy volatile organic compounds or nitrogen oxides.”

40 tpy of VOCs. *See* Exhibit 27 p. 8 (determining VOCs not subject to PSD review where VOC emissions are 24.8 tpy although facility NOx emissions are 110.9 tpy). *In the Matter of Monroe Electric Generating Plant, Entergy Louisiana Inco. Proposed Operating Permit*, Petition No. 6-99-2, Order Partially Granting and Partially Denying Petition for Objection to Permit, p. 26. It is well settled that an agency's interpretation of its own regulations is given deference. *Sierra Club v. EPA*, 705 F.3d 458, 464 (3d Cir. 2013). "An agency's interpretation of its own regulations is controlling unless plainly erroneous or inconsistent with the regulations." *Auer v. Robbins*, 519 U.S. 452, 461 (1997). In light of EPA's consistent interpretation of its own regulations, the Board should conclude that MassDEP properly determined that the SHR Project's VOC emissions are not subject to review.

The Board should uphold MassDEP's VOC determination for the additional reason that Massachusetts is not in attainment for ozone. The regulated NSR pollutants that are subject to PSD review if emitted at a rate that is equal to or exceeds the significant emission rate identified in 40 C.F.R. § 52.21(b)(23)(i) include any pollutant for which a NAAQS has been promulgated such as ozone or a precursor to such pollutant. *See* 40 C.F.R. § 52.21(b)(50). 40 C.F.R. § 52.21(b)(50) provides that VOCs are ozone precursors in all attainment and unclassifiable areas. Massachusetts is still in non-attainment with the 1997 ozone standard.⁶⁸ As a result,

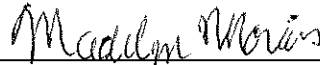
⁶⁸ Massachusetts is designated in nonattainment with the 0.08 ppm 1997 ozone standard. However, all monitors now show that Massachusetts meets the 1997 ozone standard statewide. EPA updated the 8-hour ozone standard to 0.075 ppm in 2008, and designated Massachusetts as attainment statewide except for Dukes County in 2011. Despite this air quality data, Massachusetts has not been redesignated as in attainment with the 1997 ozone standard which is still in effect. *See* Massachusetts 2012 Air Quality Report p. 10.

Footprint's VOC emissions are not subject to PSD review.⁶⁹ The Board should therefore deny review of the VOC claim.

Conclusion

For the reasons more fully set forth above, MassDEP respectfully requests that the Board deny the Amended Petition for Review.

Respectfully submitted,
On behalf of the Massachusetts Department
of Environmental Protection,
By its attorney



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⁶⁹ Footprint's VOC emissions are subject to state permitting requirements governing plan approvals and nonattainment new source review (310 CMR 7.02 and Appendix A) rather than PSD review.

CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION'S RESPONSE TO PETITION FOR REVIEW in the matter of Footprint Power Salem Harbor Development, LP EAB Appeal No. PSD 14-02, to be served by electronic mail upon the persons listed below, with hard copies to follow on April 9, 2014 by first-class mail.

Dated: April 8, 2014

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