



**TABLE OF CONTENTS**

- I. The PSD Permit Is Not Based On Clearly Erroneous Findings Of Fact Or Conclusions Of Law. It Does Not Involve A Matter Of Public Policy Or Abuse Of Discretion Warranting Review.....5**
  - a. The BACT Analysis Reflects the Considered Judgment of MassDEP as Adequately Documented in the Record. ....5**
  - b. The PM Limits Are Supported By The Record .....8**
    - i. The Application, the Draft PSD Permit, and the RTC Include Extensive Information Supporting the Proposed PM Emissions Limits .....8
    - ii. The Applicability of More Stringent PM Limits Was an Issue That Was Raised by Petitioners in Public Comments on the Draft PSD Permit.....9
    - iii. MassDEP Considered the More Stringent PM Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record. ....10
    - iv. Petitioners Offer No Technical Evidence to Counter MassDEP’s Technical Judgment on BACT .....13
  - c. The GHG Limit Is Supported By The Record .....15**
    - i. The Application, the Draft PSD Permit, and the RTC Include Extensive Information Supporting the Proposed GHG Emissions Limits. ....15
    - ii. The Applicability of More Stringent GHG Emissions Limits Was an Issue that Was Specifically Raised by Petitioners in the Public Comments on the Draft PSD Permit. ....16
    - iii. MassDEP Considered the More Stringent GHG Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record. ....17
    - iv. Petitioners Offer No Technical Evidence to Counter MassDEP’s Technical Judgment on GHG BACT.....20
  - d. The NO<sub>x</sub> SU/SD Emissions Limits Are Supported By the Record. ....21**
    - i. The Application and the Draft PSD Permit Include Extensive Information Supporting the Proposed NO<sub>x</sub> SU/SD Emissions Limits.....21
    - ii. The Applicability of More Stringent NO<sub>x</sub> SUSD Emissions Limits Was an Issue that Was Specifically Raised by Petitioners in the Public Comments on the Draft PSD Permit. ....22
    - iii. MassDEP Considered the More Stringent NO<sub>x</sub> SUSD Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record.....22
  - e. There Is No Legitimate Reason To Re-Open The Public Comment Period.....25**

**II. There is No Error in The PSD’s Air Monitoring Analysis.....29**

**a. The Use Of Regional Air Monitoring Data Is Supported By The Record.....29**

**b. There Is No Error In MassDEP’s NAAQS Compliance Analysis.....33**

        i. MassDEP Adequately Responded to EPA’s Comment and its Analysis Fully  
           Comports with EPA’s Guidance in Light of *Sierra Club*.....34

**III. MassDEP Properly Excluded VOCs From The PSD BACT Analysis.....38**

**TABLE OF AUTHORITIES**

<b>CASES:</b>	Page(s)
<b>FEDERAL CASES:</b>	
<i>Sierra Club v. EPA, 499 F.3d 653 (7th Cir. 2007)</i> .....	33
<b>EAB CASES:</b>	
<i>In re Cape Wind Associates, LLC, OCS Appeal No. 11-01</i> (EAB May 20, 2011).....	4, 5, 25, 28, 38
<i>In re: City of Palmdale, PSD Appeal No 11-07</i> (EAB September 17, 2012).....	28
<i>In re Dominion Energy Brayton Point L.L.C., 13 E.A.D. 407</i> (EAB 2007).....	27, 30
<i>In re Energy Answers Arecibo, LLC, PSD Appeals Nos. 13-05 through 13-09</i> (EAB March 25, 2014) .....	9, 16, 22, 28, 34
<i>In re La Paloma Energy Center, LLC, PSD Appeal No. 13-10</i> (EAB March 14, 2014). .....	5, 6, 7, 13, 26
<i>In re Metcalf Energy Center, PSD Appeal Nos. 01-07 and 01-08</i> (EAB August 10, 2001) .....	25, 26
<i>In re New Eng. Plating, 9 E.A.D. 726, 732</i> (EAB 2001).....	34
<i>In re Pico Pio Energy Center, PSD Appeal Nos. 12-04 through 12-06</i> (EAB August 2, 2013) .....	34
<i>In re Prairie State Generating Co., 13 E.A.D. 1</i> (EAB 2006).....	6
<i>In re Peabody Western Coal Co., 12 E.A.D. 22</i> (EAB 2005) .....	14
<i>In re Russell City Energy Center, LLC, PSD Appeals Nos. 10-01 through 10-05</i> and PSD 10-12 & PSD 10-13 (EAB November 18, 2010).....	6, 13, 17, 19, 21, 38
<i>In re Sierra Pacific Industries, PSD Appeal Nos. 13-01 through 13-04</i> (EAB July 18, 2013) .....	4, 5, 33
<i>In re Steel Dynamics, Inc., 9 E.A.D. 165, 230-31</i> (EAB 2000).....	34
<i>In re Upper Blackstone Water Pollution Abatement District, NDPES Appeal Nos.</i> 10-09, 10-10, 10-11, and 10-12, (EAB March 20, 2011).....	26

**TABLE OF AUTHORITIES** (continued)

**ADMINISTRATIVE CASES:**

*In the matter of Monroe Electric Generating Plant Entergy Louisiana, Inc., Order Partially Granting and Partially Denying Petition for Objection to Permit, Petition No. 6-99-2, (Administrator, EPA, dated June 11, 1999)*.....39

**STATUTES:**

Clean Air Act Section 165, 42 U.S.C. § 7475 .....1

**REGULATIONS:**

40 C.F.R. § 51.165(b)(2).....33

40 C.F.R. §§ 51.166,.....33

40 C.F.R. § 51.166(k)(2) .....33

40 C.F.R § 52.21 .....7, 33, 36

40 C.F.R. § 52.21(b)(23)(i).....38

40 C.F.R. § 52.21(k)(2).....33

40 C.F.R. part 98.....16

40 C.F.R. § 124.17(a).....28

40 C.F.R. § 124.17(b) .....28

40 C.F.R. § 124.18(b) .....28

40 C.F.R § 124.19(a)(4)(ii).....9

40 C.F.R. § 124.19(d)(iv).....40

**OTHER AUTHORITIES**

*Office of Air Quality Planning & Standards, U.S. EPA, New Source Review Workshop Manual (draft October, 1990)*.....6, 7, 26, 30

*Circuit Court Decision on PM<sub>2.5</sub> Significant Impact Levels and Significant Monitoring Concentration, Questions and Answers, US EPA, March 4, 2013*.....33, 36

## TABLE OF EXHIBITS

**Exhibit A:**

April 12, 2013, Letter from Tetra Tech to MassDEP  
(the “April 12, 2013 Supplement”).

**Exhibit B:**

June 10, 2013, Letter from Tetra Tech to MassDEP  
(the “June 10, 2013 Supplement”).

**Exhibit C:**

June 18, 2013, Letter from Tetra Tech to MassDEP  
(the “June 18, 2013 Supplement”).

**Exhibit D:**

August 6, 2013, Letter from Tetra Tech to MassDEP  
(the “August 6, 2013 Supplement”).

**Exhibit E:**

August 20, 2013, Letter from Tetra Tech to MassDEP  
(the “August 20, 2013 Supplement”).

**Exhibit F:**

September 4, 2013, Letter from Tetra Tech to MassDEP  
(the “September 4, 2013 Supplement”).

**Exhibit G:**

*Notice of Public Hearing and Public Comment Period on Proposed Air Quality Plan Approval and Prevention of Significant Deterioration Permit & Notice of Section 61 Findings*, issued by MassDEP on September 9, 2013 (the “Public Notice”).

**Exhibit H:**

November 1, 2013 Letter from Rubin & Rudman, LLP to MassDEP  
(“Footprint Comment Letter”).

**Exhibit I:**

December 11, 2013, Letter from Tetra Tech to MassDEP including Attachment 1 (the “December 11, 2013 Letter”); January 10, 2014, Letter from Tetra Tech to MassDEP (the “January 10, 2014 Letter”); January 16, 2014, Letter from Tetra Tech to MassDEP (the “January 16, 2014 Letter”) and January 21, 2014, Letter from Tetra Tech to MassDEP (the “January 21, 2014 Letter”).

**Exhibit J:**

Facility Permit to Operate, El Segundo Power, LLC dated October 22, 2013.

**TABLE OF EXHIBITS** (continued)

**Exhibit K:**

*Circuit Court Decision on PM<sub>2.5</sub> Significant Impact Levels and Significant Monitoring Concentration, Questions and Answers*, US EPA, March 4, 2013 (“EPA Guidance”).

**Exhibit L:**

Prevention of Significant Deterioration Permit for Pioneer Valley Energy Center, EPA Final PSD Permit Number 052-042-MA15.

**Exhibit M:**

*In the matter of Monroe Electric Generating Plant Entergy Louisiana, Inc.*, Order Partially Granting and Partially Denying Petition for Objection to Permit, Petition No. 6-99-2, (Administrator, EPA, dated June 11, 1999).

## INTRODUCTION AND BACKGROUND

The Environmental Protection Agency Environmental Appeals Board (“Board”) should deny review of the challenges brought by Petitioners Jeff Brooks, Andrea Celestine, William Dearstyne and Linda Haley to the Prevention of Significant Deterioration permit (“Final PSD Permit,” Exh. 1 to Amended Petition) issued pursuant to section 165 of the Clean Air Act (“CAA”) by the Massachusetts Department of Environmental Protection (“MassDEP”).<sup>1</sup> MassDEP’s Final PSD Permit is fully supported by the administrative record (“Record”), and Petitioners have failed to meet their heavy burden of demonstrating clear error, an abuse of discretion, or an important policy consideration warranting review of MassDEP’s decision. Moreover, Petitioners have failed in most instances to meet the applicable threshold requirements for Board review, and their petition should be dismissed for that reason alone.

Footprint Power Salem Harbor Development LP (“Footprint”) proposes to revitalize an old, oil- and coal-fired electric generation facility on a 65 +/- acre waterfront parcel of land adjacent to Salem Harbor at 24 Fort Avenue, Salem, Massachusetts (the “Site”). Specifically, Footprint proposes to demolish the existing coal- and oil-fired Salem Harbor Power Station, and to construct and operate a state-of-the-art, nominal 630 MW (692 MW with duct firing) natural gas-fired combined-cycle generating facility, with quick start capability, and related structures and infrastructure (the “SHR Facility”). The SHR Facility will be located on an approximately 20-acre portion of the Site and it will utilize natural gas as its sole fuel source. As described in the Final PSD Permit, the SHR Facility will utilize machinery including, *inter alia*, General

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<sup>1</sup> MassDEP administers the PSD program in accordance with the provisions of the April 11, 2011 Agreement for Delegation of the Federal Prevention of Significant Deterioration Program, executed by MassDEP and US EPA, Region 1.



Electric (GE) Model 107F Series 5 combustion turbines,<sup>2</sup> steam turbine generators, heat recovery steam generators, and air-cooled condensers as well as a variety of pollution control equipment.<sup>3</sup>

The proposed SHR Facility will result in meaningful environmental benefits. Specifically, by displacing other older, more polluting fossil-fuel facilities in the region, the facility will result in significant reductions of air pollutants including greenhouse gases (“GHG”). *See* Response To Comments, (“RTC”) at 29, Exh. 3 to Amended Petition. Moreover, as the result of a recent agreement with the Conservation Law Foundation, Footprint has agreed to unprecedented reductions of CO<sub>2</sub> emissions well beyond what is currently required by existing regulations. *See* Footprint’s Opposition to Motion for Permission to File Amended Petition, dated March 6, 2014 (the “Opposition”) at 1-2 and 4.

In addition, the proposed SHR Facility will ensure a reliable supply of electricity to the New England grid as it provides critically needed new capacity in the Northeast Massachusetts (“NEMA”)/Boston load zone. Indeed, the Massachusetts Department of Public Utilities, ISO-New England, Inc. (“ISO-New England”) and the Federal Energy Regulatory Commission have all determined that the Facility is required to ensure that there is adequate electricity in the NEMA/Boston zone. *Id.* at 4.

On December 21, 2012, Footprint submitted to MassDEP an application for a PSD Permit (the “December 21, 2012 Application”).<sup>4</sup> As part of its comprehensive review and analysis of the December 21, 2012 Application, MassDEP requested and Footprint provided

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<sup>2</sup> These turbines are sometimes referred to as GE Model 7FA.05 due to change in GE’s marketing nomenclature during the pendency of the permit application. The change in marketing designation did not in any way alter the equipment or its emissions or operation characteristics.

<sup>3</sup> For example, the SHR Facility will utilize Dry Low NO<sub>x</sub> Combustors, Selective Catalytic Reduction, Oxidation Catalysts and Ultra Low NO<sub>x</sub> Burners.

<sup>4</sup> On the same date and as part of the same filing, Footprint also submitted an application for a Comprehensive Air Quality Plan Application (CPA) approval under state law. The application for CPA approval addresses non-attainment new source review and state law requirements.

supplemental information on several technical questions raised by MassDEP.<sup>5</sup> After determining that the Application was administratively and technically complete, on September 9, 2013 MassDEP issued a draft PSD permit (“Draft PSD Permit”), an accompanying Draft PSD Permit Fact Sheet (“Draft Fact Sheet”), and a notice of public hearing and 30-day comment period (“Public Notice”) attached hereto as Exhibit G. MassDEP held a public hearing on the Draft PSD Permit on October 10, 2013. At the request of public commenters including the Petitioners, the MassDEP extended the public comment period by an additional 3 weeks – from October 11, 2013 to November 1, 2013.

By letter dated November 1, 2013, Petitioners submitted detailed comments on the Draft PSD Permit, including *inter alia* comments on the BACT analysis and air quality modeling. (“Petitioners’ Comment Letter,” Exh. 6 to Amended Petition) Footprint also submitted a comment letter dated November 1, 2013 to MassDEP (“*Footprint Comment Letter*”), attached hereto as Exhibit H.

In response to comments raised during the comment period, Footprint provided to MassDEP additional information regarding the SHR Facility.<sup>6</sup> Significantly, in response to public comments Footprint was able to clarify certain operating assumptions and to continue to work with its equipment vendors to seek more stringent guarantees. Accordingly, and as a result of the public comment process, Footprint was able to propose meaningful reductions in several of its proposed emissions limits.

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<sup>5</sup> Footprint submitted supplements on: April 12, 2013 (the “April 12, 2013 Supplement,” attached hereto as Exhibit A); June 10, 2013 (the “June 10, 2013 Supplement,” attached hereto as Exhibit B); June 18, 2013 (the “June 18, 2013 Supplement,” attached hereto as Exhibit C); August 6, 2013 (the “August 6, 2013 Supplement,” attached hereto as Exhibit D); August 20, 2013 (the “August 20, 2013 Supplement,” attached hereto as Exhibit E); and September 4, 2013 (the “September 4, 2013 Supplement,” attached hereto as Exhibit F). The December 21, 2012 Application and all supplements may hereinafter be referred to as the “Application”.)

<sup>6</sup> Footprint submitted additional information by letters dated December 11, 2013 (the “December 11, 2013 Letter”), January 10, 2014 (the “January 10, 2014 Letter”) and January 16, 2014 (the “January 16, 2014 Letter”). Footprint also submitted a letter on January 21, 2014 to correct typographical errors in the January 16, 2014 Letter. Copies of these letters are attached hereto as Exhibit I.

On January 30, 2014, the MassDEP issued to Footprint the Final PSD Permit authorizing Footprint to construct the SHR Facility. The Final PSD Permit contained more stringent emissions limits than the Draft PSD Permit.<sup>7</sup> The Final PSD Permit was accompanied by a 99-page Fact Sheet (“Final Fact Sheet”) and the 105-page RTC.

At approximately 11:59 p.m. EST on March 3, 2014, the Petitioners submitted to the Board, via electronic filing, a hybrid document entitled “Petition for Review and Motion for Permission to File Amended Petition” regarding the Final PSD Permit (“Original Petition”). Footprint sent to the Board, via overnight delivery on March 6, 2014, its Opposition.<sup>8</sup> The Board granted Petitioners’ Motion on March 6, 2014, and the Petitioners filed an Amended Petition for Review on March 17, 2014 (the “Amended Petition”).

### **STANDING AND STANDARD OF REVIEW**

As an initial matter, the Board must first consider “whether the petitioner has met threshold procedural requirements such as timeliness, standing, issue prevention, and specificity.” *Sierra Pacific Industries*, PSD Appeal Nos. 13-01 to 13-04, slip op. at 18 (EAB July 18, 2013) (internal citation omitted) (“*Sierra Pacific*”). Further, the Board’s power of review is discretionary, it should be only sparingly exercised, and most permit conditions should be finally determined at the permit issuer’s level. *See Cape Wind Associates, LLC*, OCS Appeal No. 11-01, slip op. at 4 (EAB May 20, 2011) (internal citations omitted) (“*Cape Wind*”). Petitioners bear the burden of demonstrating that review is warranted, and Petitioners “must raise specific objections to the permit and explain why the permit issuer’s previous response to those

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<sup>7</sup> The sole exception was a *de minimus* increase in H<sub>2</sub>SO<sub>4</sub>. This slight increase resulted from Footprint’s addition of an oxidation catalyst for the auxiliary boiler, as was specifically requested by Petitioners in their comment letter. *See* Petitioners’ Comment Letter, Exh. 6 to Amended Petition at 6.

<sup>8</sup> Footprint also sent via overnight delivery on March 5, 2014 its Notice of Appearance in which Footprint communicated its intent to file a timely Opposition to Petitioners’ Motion.

objections is clearly erroneous or otherwise warrants review.” *Id.* at 4 (internal citations omitted).

As recently articulated by the Board in its decision in *Sierra Pacific*:

Ordinarily, the Board will not review a PSD permit unless the permit decision either is based on a clearly erroneous finding of fact or conclusion of law, or involves a matter of policy<sup>9</sup> or exercise of discretion that warrants review. When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised his or her ‘considered judgment.’ The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied upon when reaching its conclusion. As a whole, the record must demonstrate that the permit issuer ‘duly considered the issues raised in the comments’ and ultimately adopted an approach that ‘is rational in light of all information in the Record.’ On matters that are fundamentally technical in nature, the Board typically will defer to a permit issuer’s technical expertise, as long as the permit issuer adequately explains its rationale and supports its reasoning in the administrative record. In reviewing an exercise of discretion by the permitting authority, the Board applies an abuse of discretion standard.

*Sierra Pacific* at 18. (internal citations omitted). *See also, In the Matter of La Paloma Energy Center, LLC*, PSD Appeal No. 13-10, slip. op. at 4-5 (EAB March 14, 2014) (“*La Paloma*”).

## ARGUMENT

### **I. The PSD Permit Is Not Based On Clearly Erroneous Findings Of Fact Or Conclusions Of Law. It Does Not Involve A Matter Of Public Policy Or Abuse Of Discretion Warranting Review.**

#### a. The BACT Analysis Reflects the Considered Judgment of MassDEP as Adequately Documented in the Record.

In essence, Petitioners argue that MassDEP’s BACT analysis was flawed because MassDEP did not select lower emissions limits that have been set for certain other facilities. Quite simply, the Petitioners are wrong. The Board has “long recognized that permit writers

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<sup>9</sup> In the Amended Petition, Petitioners make no claim that review of the permit involves a matter of public policy warranting review.

must retain discretion to set BACT levels that “do not necessarily reflect the highest possible control efficiencies but, rather, will allow permittees to achieve compliance on a consistent basis.” *In re Prairie State Generating Company, LLC*, 13 E.A.D. 1, 54 (EAB 2006) (“*Prairie State*”) at 54; *see also In re Russell City Energy Center, LLC*, PSD Appeal Nos. 10-01, 10-02, 10-03, 10-04 and 10-05, (EAB Nov. 18, 2010) slip op. at 77 (“*Russell City*”) (“PSD limits are not necessarily a direct translation of the lowest emissions rate that has been achieved by a particular technology at another facility, but that those limits must also reflect consideration of any practical difficulties associated with using the control technology”), *La Paloma*, at 17-18 (Permitting authorities are not always require to impose the highest possible level of control.)<sup>10</sup>

Accordingly, in evaluating a BACT determination on appeal, the Board looks at whether the determination reflects the considered judgment on the part of the permitting authority as documented in the Record. *See Russell City* at 58. As set forth in detail in the following sections, it is clear that MassDEP reviewed lower emissions limits at other facilities, that MassDEP exercised its considered judgment in determining that the proposed emissions limits were appropriate for the SHR Facility, and that MassDEP’s reasoning in selecting emissions limits for the SHR Facility are adequately set forth in the Record.

In conducting the BACT analysis, MassDEP utilized the 5-step “top-down” BACT analysis described in the EPA guidance document known as the New Source Review Manual. *See Office of Air Quality Planning & Standards, U.S. EPA, New Source Review Workshop Manual 1 (draft October, 1990) (“NSR Manual”)*. As noted by the Board, “the NSR Manual is not a binding Agency regulation, and consequently strict application of the methodology

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<sup>10</sup> Furthermore, “the BACT definition requires permit issuers to proceed on a *case-by-case basis*, taking a careful and detailed look, attentive to the technology or methods *appropriate for the particular facility*, to seek the result *tailor-made for that facility* and that pollutant.” *La Paloma* at 8 (internal citations and quotations omitted)(emphasis added).

described in it is not mandatory nor is it the required vehicle for making BACT determinations.” *La Paloma* at 9, n. 4. Nonetheless, exactly this type of 5-step, “top-down” BACT analysis was conducted for the SHR Facility and adopted by MassDEP as the basis for its emissions limits in the Final PSD Permit.

Petitioners incorrectly characterize this BACT analysis as being “new.” In fact, Footprint’s Application included, and the Draft PSD Fact Sheet adopted, a comprehensive BACT analysis that Petitioners are also wrong to characterize as being an “anecdotal survey.” Amended Petition at 2.<sup>11</sup>

The Draft PSD Permit specifically stated that it is “valid only for the equipment described herein and as submitted to MassDEP in the December 21, 2012 application for a PSD Permit under 40 CFR § 52.21 and *subsequent application submittal addenda.*” Draft PSD Permit, Exh. 1 to Original Petition at 1 (emphasis added). All the applicable PSD emissions limits are specifically addressed by MassDEP in its Draft Fact Sheet. In fact, both the Application and the Draft Fact Sheet specifically address differing emissions rates at other permitted facilities for all the applicable PSD pollutants and explain why they are inappropriate for the SHR Facility.

All of the Draft documents and supporting Application materials were made available to the public during the public comment period. MassDEP’s Public Notice specifically stated:

Copies of the Proposed Plan Approval and Draft PSD Permit and *the application file can be reviewed at MassDEP’s Northeast Regional Office* located at 205B Lowell Street, Wilmington, MA commencing on the date of this Notice during normal business hours of 8:45 AM to 5:00 PM by calling Cosmo Buttarro at (978) 694-3281.

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<sup>11</sup> See EPA Comment Letter, Exh. 7 to Amended Petition at 1. (“We understand the MassDEP [BACT] procedures are modeled after EPA’s October 1990 draft New Source Review Workshop Manual and the MassDEP’s own June 2011 BACT guidance document.”)

*Public Notice*, Exh. G at 3 (emphasis added). In fact, as stated by MassDEP at the April 2, 2014 Status Conference (“Status Conference”), the Petitioners requested from MassDEP and MassDEP provided to the Petitioners copies of materials from the Application file.

Nonetheless and in response to public comments (including comments submitted on behalf of the Petitioners, *see* Petitioners’ Comment Letter, Exh. 6 to Amended Petition), Footprint provided more information to supplement the significant information contained in the Application’s BACT analysis. As detailed in the following sections, the MassDEP’s BACT determination for each applicable pollutant is consistent with applicable law and guidance and reflects MassDEP’s considered judgment as adequately documented in the Record.

b. The PM Limits Are Supported By The Record

i. **The Application, the Draft PSD Permit, and the RTC Include Extensive Information Supporting the Proposed PM Emissions Limits**

As Part of its December 21, 2012 Application, Footprint provided considerable information regarding the PM emissions limits proposed for start-up and shut down at the SHR Facility. In addition, as part of MassDEP’s technical review of the December 21, 2012 Application, MassDEP requested and Footprint provided additional information regarding proposed PM emissions. *See, April 12, 2003 Supplement*, Exh. A at 13-14, *June 10, 2013 Supplement*, Exh. B at 3-4; *August 6, 2013 Supplement*, Exh. D at 1-2; and *August 20, 2013 Supplement*, Exh. E at 1-2.

As set forth in more detail below, MassDEP comprehensively addressed this issue in the Draft PSD Permit, PSD Fact Sheets and the RTC.

**ii. The Applicability of More Stringent PM Limits Was an Issue That Was Raised by Petitioners in Public Comments on the Draft PSD Permit**

The Petitioners have not met their threshold burden of stating in the Amended Petition where in the comments this issue was first raised, and the Board certainly has discretion to deny the Petitions' claim on that ground alone.<sup>12</sup> Nonetheless, Footprint acknowledges that the issue of whether MassDEP selected the appropriate PM BACT limits for the SHR Facility was first raised by Petitioners in their comments on the Draft PSD Permit. Specifically, Petitioners stated:

MassDEP appears to have relied upon the top case BACT Guidance to establish that a rate of 0.0067 lbs/MMBtu and 0.0071 lbs/MMBtu would constitute BACT. *See* MassDEP Draft PSD Fact Sheet at 12-13. However, the most recent PSD permit issued by the EPA in Massachusetts determined that BACT was 0.004 lbs/MMBtu. *Id.* MassDEP failed to provide sufficient information for its conclusion that the PSD permit issued by Region 1 EPA for the Pioneer Valley Energy Center Project, which included an emissions limit of 0.004 lbs/MMBtu would not be achievable and should not represent BACT for this facility. *See* MassDEP Draft PSD Permit Fact Sheet at 13. Rather than relying upon the MassDEP guidance and the performance of a facility that was constructed years ago, the Mass DEP should have required a case-by-case, unit specific BACT analysis for PM as required by the federal regulations, the Delegation Agreement and the Clean Air Act.

Petitioners' Comment Letter, Exh. 6 to Amended Petition at 7. This same argument is now raised again by the Petitioners in this appeal.

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<sup>12</sup> "In any appeal from a permit under part 124, the petitioner bears the burden of demonstrating that review is warranted. Thus, to the extent a petitioner challenges an issue the permit issuer addressed in its responses to comments, the petitioner must provide a record citation to the comment and response and also must explain why the permit issuer's previous response to those comments was clearly erroneous or otherwise warrants review." 40 C.F.R. § 124.19(a)(4)(ii); *In re Energy Answers Arecibo, LLC*, PSD Appeals Nos. 13-05 through 13-09, Slip op at 10. (EAB March 25, 2014)(*Energy Answers*). That is, The Board is not obligated to scour the administrative record to determine whether an issue was properly preserved for Board review. *Id.* at 20).



**iii. MassDEP Considered the More Stringent PM Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record.**

This issue was comprehensively addressed by MassDEP in the Final PSD Fact Sheet and RTC. First, in describing the changes MassDEP made from the Draft PSD Permit to the Final PSD Permit, the RTC specifically states:

The PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT emission limit for the combustion turbines has been reduced from 0.0088 lb/MMBtu to 0.0071 lb/MMBtu. The Applicant has provided 25 potential operating scenarios at various seasonal conditions (differing ambient temperature, ambient pressure and ambient humidity) during which the PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate varies from 0.0038 lb/MMBtu to 0.0071 lb/MMBtu. The Applicant states that at 0 degree Fahrenheit the gas turbines can achieve the PM/PM<sub>10</sub>/PM<sub>2.5</sub> rate of 0.0038 lb/MMBtu and at a high temperature of 105 degree Fahrenheit can achieve the PM/PM<sub>10</sub>/PM<sub>2.5</sub> of 0.0047 lb/MMBtu. MassDEP has reviewed all the submitted annual projected operating scenarios for the proposed SHR Project, and all combustion turbine operating conditions (duct burner firing and duct burner not firing) and as stated above, has determined that 0.0071 lb/MMBtu is BACT for PM/PM<sub>10</sub>/PM<sub>2.5</sub>. This discussion may be found in the PSD Fact sheet, the RTC below and in the PSD Permit emissions Table 2.

RTC, Exh. 3 to Amended Petition at 6. Indeed, the Final PSD Fact Sheet contains a more detailed analysis explaining the same conclusion:

Emissions of particulate matter result from trace quantities of ash (non-combustibles) in the fuel as well as products of incomplete combustion. Footprint proposes to minimize particulate emissions from the proposed SHR Project by utilizing state-of-the-art combustion turbines and good combustion practices to burn natural gas, the lowest ash-content fuel available. Footprint conservatively presumes that all particulate matter (PM) emissions from combustion turbines firing natural gas are less than 2.5 microns in diameter (PM<sub>2.5</sub>). Based on guarantees supplied by the vendor (GE), Footprint is proposing to achieve emissions of PM, PM<sub>10</sub>, and PM<sub>2.5</sub>, of: 0.0038 pounds per million British thermal units (lb/MMBtu) at 0°F to 0.0047 lb/MMBtu at 105°F at full load unfired conditions. Footprint presents the PSD BACT limits for PM/PM<sub>10</sub>/PM<sub>2.5</sub> for 34 projects approved within the last 5 years. Eighteen of these projects had PM limits that were less stringent than the limits proposed by Footprint and sixteen of these projects had PM limits that were more stringent than the limits proposed by Footprint. Footprint determined that there was no data that show that the PM emissions from any of the projects with more

stringent limits could reliably meet these limits on a long term basis. Because Footprint needs the flexibility to run the plant under different load conditions, both with and without duct firing, Footprint requests that MassDEP determine that its proposed emission limits of 0.0071 lbs/MMBtu are BACT. To support this request, MassDEP has evaluated Footprint's request and agrees that Footprint needs the flexibility to operate at different levels including the minimum load level and determined that the proposed limits represent BACT. (See Appendix A, Attachment A-1, Sheets 1, 2 and 3, highlighted text.).

Final PSD Fact Sheet, Exh. 2 to Amended Petition at 11-12. Further, in this section of the Fact Sheet, MassDEP goes on to describe the specific differences among the PM emissions limits proposed for the SHR Facility permit, and the PM emissions limits for the Brockton Power Company ("Brockton") Plan Approval and the Pioneer Valley Energy Center ("PVEC") PSD permit.

With respect to the Brockton permit, the Final PSD Fact Sheet explains:

The Brockton Power Company LLC (Plan Approval No. 4B08015, July 20, 2011) was approved for 0.007 lb/MMBtu for loads down to 60% load. MassDEP concludes that the PM BACT for Brockton and the SHR Project are comparable for SHR Project's CT loads at 75% and greater. Footprint has indicated that the turbine vendor performance levels at minimum emissions compliant CT load without duct firing require a slightly higher lb/MMBtu PM limit. MassDEP has evaluated this request and concludes that the operating flexibility afforded by operating at the minimum load levels warrants the approval of a PM rate of 0.0071 lb/MMBtu at the minimum load conditions.

*Id.* at 12. With respect to the PVEC permit, the Final PSD Fact Sheet explains:

Pioneer Valley Energy Center (PVEV) (EPA Final PSD Permit No. 052-042-MA15, April 2012) was approved for a PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate of 0.004 lb/MMBtu for natural gas firing. Footprint points out that PVEC's ability to meet this limit has not been demonstrated in practice since the PVEC Project has not yet been constructed and that it is not consistent with recent test data for the same model turbine.<sup>13</sup> The emission limit for PVEC is based on the MHI 501G turbine, the same turbine used at Mystic Station. Footprint notes that Mystic Station was

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<sup>13</sup> Further, the specific turbine proposed at PVEC has not undergone stack PM testing. The Mitsubishi Comment Letter (Petitioners' Exh. 8) confirms that Mitsubishi has "not yet conducted stack PM emissions testing for our M501GAC gas turbine in combined cycle."

approved for 0.011 lb/MMBtu, and that the four Mystic Station MHI 501G units had tested PM emissions ranging from 0.005 to 0.010 lb/MMBtu. Footprint contends that it is not reasonable to expect that the MHI 501 unit at PVEC could reliably achieve 0.004 lb/MMBtu in practice.<sup>14</sup> MassDEP has determined that the Footprint position regarding PVEC emission limits of 0.004 lb/MMBtu has merit. MassDEP concludes that the PM emission rate of 0.0071 lb/MMBtu represents BACT for all operating loads for PM/PM<sub>10</sub>/PM<sub>2.5</sub> for the SHR Project's combined cycle turbines.

*Id.* These explanations are also summarized and referenced in the RTC. *See* RTC, Exh. 3 to Amended Petition at 10-12.

Clearly, MassDEP's comprehensive, substantive consideration of more stringent PM emissions limits – as documented in the RTC and Final PSD Fact Sheet and as based upon facts submitted by Footprint in the Record – provides ample bases for MassDEP's selection of the proposed PM emissions limit for the SHR Facility. *See e.g., December 11, 2013 Letter*, Exh. I. MassDEP's analysis makes it clear that Footprint's PM<sub>2.5</sub> emissions under full-load conditions at ISO temperatures of .0038 to .0047 lbs/MMBtu are comparable, if not lower, than those of other facilities. Because Footprint's business plan requires operation at different operating levels, including at minimum emission compliance loads ("MECL"), a slightly higher emissions limit is required for this particular facility.

In any event, all of the highly efficient gas-fired combined cycle units will utilize the exact same control technology – natural gas and good combustion practices. Any differences with other facilities are a result of factors such as differing operating conditions and/or differences in vendor guarantee philosophies – not different control technologies.

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<sup>14</sup> Petitioners wrongly allege that MassDEP claims "its own emission limit for PVEC is not achievable." Amended Petition at 6. The Petitioners' statement is inaccurate as the Record clearly shows that MassDEP never weighed in on achievability but instead stated that the PVEC limit has not been demonstrated in practice as the PVEC project is not yet operational. RTC at 51.

Petitioners' decision to ignore these comments does not render them non-existent.<sup>15</sup>

Where the record demonstrates that MassDEP duly considered the issues raised in the comments and ultimately adopted an approach that is rational in light of all the information in the Record, Petitioners' appeal must be denied. *La Paloma* at 4.

**iv. Petitioners Offer No Technical Evidence to Counter MassDEP's Technical Judgment on BACT**

In the course of the permit proceedings, Footprint has submitted to MassDEP and MassDEP has evaluated voluminous amounts of the technical data and analyses. In contrast, the Petitioners do not offer any expert opinion or evidence to support their allegations that the BACT determination for PM is faulty. For example, Petitioners offer no evidence to show that the permit limits they favor are achievable for the turbine vendor selected by Footprint and under the specific operating scenarios proposed and evaluated for the SHR Facility. Thus, any reliance on the unsupported claims of a rival vendor, Mitsubishi, are misplaced because different vendors of F Class combined cycle units are not considered to be a "control technology" in a BACT analysis. *See La Paloma* at 15-16. Moreover, as MassDEP pointed out, the only actual stack testing data available for the Mitsubishi turbines does not support those assertions.

So too, while Petitioners baldly assert that the *Russell City* permit provides a comparable comparison, Petitioners offer no evidence to counter the explanation presented by Footprint that the *Russell City* permit allows that facility to propose alternate measuring techniques to measure condensable PM, such as the use of a dilution tunnel and that such a technique is expected to result in lower (and more realistic) tested emissions compared to typical stationary source

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<sup>15</sup> Indeed, the Board has previously stated that a petitioner's failure to address the permit issuer's response to comments is *fatal* to its request for review. *See Russell City* at 92.

impinger techniques for measuring condensable PM.<sup>16</sup> RTC, Exh. 3 to Amended Petition at Appendix 1 p. 52. As prior decisions of the Board make clear, the burden is on the Petitioners to show that the facilities are substantially similar. *See In re Peabody Western Coal Co.*, 12 E.A.D. 22, 23 and 46 (EAB 2005). (The Board found that Petitioner failed to adequately demonstrate that the permits it cited as precedent for its proposed emissions limits involved facilities that were truly similar to the facility at issue on the appeal or that those permits relied on emissions factors and estimated control efficiencies in the same manner as did the approach proposed for the facility at issue on appeal. Therefore, review was denied where petitioner failed to demonstrate adequately that the permits it cited are sufficiently similar to the final permit at issue in this case to serve as useful precedent.)

As the Petitioners have not met their burden, the Board should deny review:

The Board typically will not grant review where the record demonstrates merely a difference of opinion or an alternative theory regarding a technical matter. Instead, where the view of the Region and the petitioner indicate bona fide differences of expert opinion or judgment on a technical issue, deference to the Region's decision is generally appropriate if the record demonstrates that the Region duly considered the issues raised in the comments and if the approach ultimately selected by the region is rational in light of all of the information in the Record.

*Id.* at 34 (internal citations omitted).

In summary, Petitioners ignore the complex technical issues and agency judgments that underlie PM limits for combustion turbines. For example, as stated in the Record, particulate matter generated by natural gas fired combustion turbines are emitted at low levels which create complicated technical challenges in achieving accurate measurements for determining compliance with PM permit limits. As a result, different turbine vendors have developed different approaches as to how emissions are guaranteed. *See December 11, 2013 Letter*, Exh. I,

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<sup>16</sup> Moreover, the *Russell City* facility utilizes Siemens turbines and its emission rate is virtually identical to the SHR Facility full load rate of .0038 without duct firing.

at Attachment 1, 4-5 through 4-10. As shown in Table 1-1, of Appendix 1 of the RTC, permitting agencies recognize these fundamental differences in how vendors offer these guarantees, and commonly make the permit limits specific to the vendor. MassDEP correctly determined that this does not necessarily mean a GE turbine will emit more PM than a different turbine manufacturer since all the projects utilize the exact same control technology.

BACT determinations are fact specific and here, the Record indicates that Footprint has determined that the flexibility to operate at different conditions, including MECL, is important to the Project's mission of providing a flexible and quick response to the future system power needs. *Id.* The permit limit recognizes this practical reality.

c. The GHG Limit Is Supported By The Record

i. **The Application, the Draft PSD Permit, and the RTC Include Extensive Information Supporting the Proposed GHG Emissions Limits.**

As part of its December 21, 2012 Application, Footprint provided considerable information regarding the GHG emissions limits proposed for the SHR Facility. In addition, as part of MassDEP's technical review of the December 21, 2012 Application, MassDEP requested and Footprint provided additional information regarding proposed GHG emissions. *See, April 12, 2013 Supplement*, Exh. A at 10-13, *June 10, 2013 Supplement*, Exh. B at 1, *August 20, 2013 Supplement*, Exh. E at 3-4; and *September 4, 2013 Supplement*, Exh. F at 4-5. Again, all of the Draft documents and supporting Application materials were made available to the public during the public comment period and, in fact, the Petitioners requested from MassDEP and MassDEP provided to the Petitioners copies of materials from the Application file.

**ii. The Applicability of More Stringent GHG Emissions Limits Was an Issue that Was Specifically Raised by Petitioners in the Public Comments on the Draft PSD Permit.**

Again, Petitioners have not met their threshold burden of stating in the Amended Petition where in the public comments this issue was raised, and the Board certainly has discretion to deny the Amended Petition on that ground alone. *Energy Answers* at 10. Footprint does acknowledge that certain issues regarding MassDEP's selection of an appropriate GHG limit for the SHR Facility were raised in Petitioners' Comment Letter. In fact, Petitioners submitted detailed comments suggesting the MassDEP adopt lower emissions limits with regard GHG emissions limits for the SHR Facility:

The draft/proposed permits establish a BACT limit for greenhouse gas emissions, however, it is unclear whether the project will achieve the same levels of efficiency and the heat rate limits of recently permitted projects. MassDEP should review the greenhouse gas emissions limits set for the Newark Energy Center in New Jersey as well as other facilities referenced in a recent letter from Steven Riva, EPA Region 2 to the NJ DEP. In that letter, Mr. Riva explained that:

To minimize the GHG emissions, Newark Energy Center proposes as BACT to operate the turbines in combined-cycle mode at a heat rate limit of 6,005 Btu/kW-hr to achieve the thermal efficiency of 58.4% (LHV) with no duct firing. In comparison, the Russell Energy Project in California proposed to achieve a 56.4% efficiency and the Cricket Valley Project in New York proposed to achieve 57.4% efficiency.

Although the permit establishes a lb/MWh limit and higher heating value limits, it should also translate these limits into a thermal efficiency a [sic] requirement.

The permit references additional greenhouse gas emissions from nitrous oxide and methane, but it does not appear to account for the methane and nitrous oxide emissions in determining compliance with the emission limit for total GHGs. The emission factors from Table c-2 of 40 C.F.R. part 98 and global warming potentials from Table A-1 of 40 C.F.R. part 98 should be used, along with the measured heat input to the combined turbines.

Petitioners' Comment Letter, Exh. 6 to Amended Petition at 7-8 (internal citations omitted). In this proceeding before the Board, Petitioners now essentially repeat the arguments raised in their comment letter.

**iii. MassDEP Considered the More Stringent GHG Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record.**

In response to the public comments submitted to MassDEP concerning proposed GHG emissions limits, and as specifically requested by Petitioners' Comment Letter, Footprint submitted to MassDEP additional information to further support the proposed GHG limits. Specifically, in its December 11, 2013 Letter Footprint addresses each and every one of Petitioners' questions and specifically reviews and evaluates the GHG emissions limits not only of the particular facilities listed in the Petitioners' Comments Letter, but also of several *other* facilities that had been permitted since the December 21, 2012 Application had been filed. *See December 11, 2013 Letter*, Exh. I at 5 and its Attachment at 4-14 through 4-24. In each case, Footprint presents a justifiable and compelling argument for why these other facilities and their permitted GHG emissions are equal to or less stringent than those proposed for the SHR Facility or, in only two cases, are not reasonably comparable.<sup>17</sup> RTC, Exh. 3 to Amended Petition at Appendix 1 at 61-66. The BACT analysis also notes that the GHG control technology for each of these facilities is use of natural gas in a high efficiency combined cycle turbine. *Id.* at 66.

In the RTC, MassDEP also clearly and comprehensively addresses the Petitioners' comments regarding GHG emissions limits:

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<sup>17</sup> While Petitioners now essentially repeat the arguments regarding more stringent GHG emissions limits, Petitioners narrow their criticism only to: the Brockton facility; two other facilities addressed in the December 11, 2013 Letter – New Brunswick and Oregon; and certain other facilities which do not appear on the RACT/BACT/LAER clearinghouse and are improperly raised for the first time in this appeal. Moreover, the GHG emission levels cited in the Sierra Club letter, *see* Exh. 10 to Amended Petition, refer to actual measured emissions, not permit conditions. Obviously, short-term actual measurements may be expected to be significantly lower than permitted levels which include allowances for different operating conditions, equipment degradation and a safety margin. *See e.g., Russell City* at 77-79.



GHG BACT has been addressed in the updated PSD BACT analysis for GHG emissions (Section 4.1.5 of the Applicant's December 11, 2013 submittal) and that analysis has been appended to the PSD Fact Sheet. The Footprint design thermal efficiency is 57.9 percent. Concern that this value exceeds the proposed thermal efficiency values cited in a letter written by USEPA's Steven Riva (Chief, Permitting Section, Air Programs Branch) addressing recently approved PSD Permits concerning GHG emission values and thermal efficiencies is misplaced. The use of thermal efficiencies is not a recommended regulatory requirement due to heat rate degradation, duct firing operation/no duct firing operation, ambient temperature, cooling technology, and number of start-ups and shutdowns. Thus the GHG BACT for the SHR Project is expressed in pounds of CO<sub>2</sub>e per megawatt hour.

Furthermore, the GHG BACT emission limit is expressed as "CO<sub>2</sub>e" rather than CO<sub>2</sub>. CO<sub>2</sub>e incorporates all federally enforceable GHGs emitted from emission units at the proposed SHR Project including CO<sub>2</sub>, methane and nitrous oxide.

RTC, Exh. 3 to Amended Petition at 10.

In addition, MassDEP expressly presents its evaluation of the GHG emissions limits set forth in the Brockton permit<sup>18</sup>:

Footprint notes that the Plan Approval for the proposed Brockton Power Plant may contain a more stringent GHG emission limit (Plan Approval No. 4B08015, July 20, 2011). The Brockton Project was approved for a rolling 12-month CO<sub>2</sub> (not CO<sub>2</sub>e) limit of 842 lb/MWh, a limit more stringent than the 895 lb CO<sub>2</sub>e/MWh proposed by Footprint. The basis for the 842 lb CO<sub>2</sub>/MWh limit in the Plan Application for the Brockton Project is stated "to include operation at a variety of loads, ambient temperatures, with and without evaporative cooling, and with and without duct firing, and including starts and stops" (Brockton Power Plan Application at Page 4-30). However, there is no mention of any allowance for heat rate (efficiency) degradation over the life of the project or between major turbine overhauls. Footprint notes that the Brockton Project has not yet been constructed, and the 842 lb CO<sub>2</sub>/MWh value therefore has not been demonstrated in practice. In addition, Footprint notes that the Brockton Project did not specifically undergo a PSD review for GHG BACT.

Footprint also notes that in the Plan Application for the Brockton Project, it is stated that the 842 lb CO<sub>2</sub>/MWh value is based on a CO<sub>2</sub> emission

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<sup>18</sup> Brockton is one of the two facilities which the Footprint BACT analysis found to be not reasonably comparable. The other is the Palmdale Facility which is a hybrid solar plant.

factor of 117 lb/MMBtu. Footprint notes its proposed limit of 895 lb CO<sub>2</sub>e/MWh<sub>grid</sub> is based on a CO<sub>2</sub>e emission factor of 119 lb/MMBtu. Adjusting the Brockton value of 842 lb/CO<sub>2</sub>/MWh 118.9/117, the Brockton rate based on 118.9 lb CO<sub>2</sub>/MMBtu would be 856 lb CO<sub>2</sub>/MWh. In this case, the SHR Project value (895 lb CO<sub>2</sub>e/MWh<sub>grid</sub>) is only 4.6% higher than the adjusted Brockton value (856 lb CO<sub>2</sub>/MWh). In addition, the Brockton Project design is based on wet cooling, while the SHR Project will use dry cooling. Projects using dry cooling have higher heat rates (are less efficient) than wet cooled projects, particularly during the summer months.<sup>19</sup>

MassDEP has reviewed the Brockton Plan Approval and has determined that a reasonable allowance for heat rate (efficiency) degradation over the life of the project and between major turbine overhauls, as well as the impact of wet vs. dry cooling explains the proposed GHG BACT for the SHR Project of 895 lb CO<sub>2</sub>e/MWh<sub>grid</sub> compared to the proposed Brockton limit. Based on Footprint's BACT Analysis including its evaluation of the Brockton Plan Approval, MassDEP concludes that the 365 day rolling average GHG emissions of 895 lb CO<sub>2</sub>e/MWh<sub>grid</sub>, which includes reasonable allowances for the various factors affecting long-term GHG emissions, including performance degradation, represents BACT for GHG emissions.

Final PSD Fact Sheet, Exh. 2 to Amended Petition at 14-15. As the Record reflects, MassDEP specifically addressed Petitioners' comments regarding the potential applicability of more stringent GHG emissions limits to the proposed SHR Facility. Moreover, as demonstrated above, in establishing the case-specific GHG limits for the SHR facility, MassDEP ultimately relied on two technical factors, the use of a different cooling method and an allowance for long-term degradation, to formulate a GHG emissions limit that is rational in light of all the information in the Record.

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<sup>19</sup> Petitioners' assertions regarding wet vs. dry cooling are puzzling. First, cooling systems options are a fundamental facility design choice, not a pollution control technology. *See e.g., Russell City* at 98-100. Moreover, the Record contains ample evidence – again not cited by Petitioners – to support Footprint's selection of dry cooling as the best option for the proposed SHR Facility. *See e.g.,* December 11, 2013 Letter at Attachment 1, 4-16 through 4-19.

**iv. Petitioners Offer No Technical Evidence to Counter MassDEP's Technical Judgment on GHG BACT**

As reflected in the Record, in the course of the permit proceedings, Footprint has submitted to MassDEP and MassDEP has evaluated extensive technical data and analyses regarding GHG emissions. In response, Petitioners either ignore, or mischaracterize MassDEP's analysis and present no relevant evidence to the contrary. For example, Petitioners assert that MassDEP's analysis that wet cooling is more efficient than dry cooling is "contradicted" by MassDEP's conclusion that wet cooling for the SHR Facility would not be significantly more efficient than dry cooling. However, the fact is that the SHR Facility's coastal location, unlike that of Brockton, poses significant risks of fogging that would require significant plume abatement that does significantly decrease the efficiency advantages of wet cooling for this particular facility. Petitioners also take issue with MassDEP's technical conclusion that consideration of long-term degradation in efficiency in setting an emission limit is appropriate, but Petitioners do not offer any evidence whatsoever that this is an abuse of discretion.

Petitioners also clearly disagree with Footprint's BACT analysis for GHG which considered 15 projects with GHG permit limits and which is part of the Record, but offer no factual evidence to contradict it. That analysis states that the proposed GHG limits for the SHR Facility are "as or more stringent than any other PSD BACT determinations" with only two exceptions. RTC, Exh. 3 to Amended Petition at Appendix 1 p. 66. One exception is the Palmdale Facility in California which is a hybrid solar facility and the other is Brockton Power, which MassDEP addressed in detail. The Record is clear that MassDEP did not ignore any lower GHG emissions permit limits from comparable facilities in establishing the GHG permit limit for the SHR Facility. Indeed, the GHG permit limit established is among the most stringent in the nation.

Finally, Petitioners attempt to introduce for the first time in this appeal a letter from the Sierra Club, purporting to show GHG emissions data from the EPA's Clean Air Markets database. Leaving aside the procedural problems inherent in considering this information, it is simply not relevant to this appeal because all these plants were permitted before the GHG tailoring rule became effective, so none of these plants have actual GHG emission limits. As discussed above, short-term actual emission levels are not probative of reasonable permit limits because they do not include such factors as allowances for different operating conditions i.e. duct firing, long-term degradation and a safety margin. *See also, Russell City* at 77- 79. (Board distinguishes between measured emissions rates and emissions limitations selected in a BACT determination.)

In sum, Petitioners utterly fail to meet their high burden of demonstrating that MassDEP's technical permit determinations on GHG limits are arbitrary and unsupported by the Record.

d. The NO<sub>x</sub> SU/SD Emissions Limits Are Supported By the Record.

i. **The Application and the Draft PSD Permit Include Extensive Information Supporting the Proposed NO<sub>x</sub> SU/SD Emissions Limits**

As Part of its December 21, 2012 Application, Footprint provided considerable information regarding the NO<sub>x</sub> emissions limits proposed for start-up and shut down at the SHR Facility. In addition, as part of MassDEP's technical review of the December 21, 2012 Application, MassDEP requested and Footprint provided additional information regarding proposed NO<sub>x</sub> SU/SD emissions. *See, April 12, 2013 Supplement, Exh. A* at 13-14, *June 10, 2013 Supplement, Exh. B* at 3-4, and *August 6, 2013 Supplement, Exh. D* at 1-2. Again, all of the Draft documents and supporting Application materials were made available to the public

during the public comment period and, in fact, the Petitioners requested from MassDEP and MassDEP provided to the Petitioners copies of materials from the Application file.

**ii. The Applicability of More Stringent NO<sub>x</sub> SUSD Emissions Limits Was an Issue that Was Specifically Raised by Petitioners in the Public Comments on the Draft PSD Permit.**

Again, the Petitioners have not met their threshold burden of stating in the Amended Petition where in the comments this issue was first raised, and the Board certainly has discretion to deny the Petition on that ground alone. *Energy Answers* at 10. Nonetheless, Footprint acknowledges that the issue of whether MassDEP selected the appropriate NO<sub>x</sub> SUSD limits for the SHR Facility was first raised by Petitioners in their comments on the Draft PSD Permit. In fact, Petitioners submitted detailed comments suggesting the MassDEP adopt lower emissions limits with regard to start-up and shutdown limits for NO<sub>x</sub>. *See* Petitioners' Comment Letter, Exh. 6 to Amended Petition at 4-5. This same argument is now raised again by the Petitioners in this appeal. *See* Amended Petition at 11-12.

**iii. MassDEP Considered the More Stringent NO<sub>x</sub> SUSD Limit Issue, Exercised its Considered Judgment and Documented its Reasoning in the Record.**

As grounds for its attack against the NO<sub>x</sub> limits for SUSD, Petitioners point to purportedly lower NO<sub>x</sub> SUSD emissions limits in 2 other permits issued for 2 different facilities – the Brockton and El Segundo facilities – both of which utilize Siemens brand combustion turbines. This is essentially the same issue Petitioners raised in the comment letter and, as the Record reflects, Petitioners incorrectly assert that MassDEP made “no attempt” to explain why it selected the proposed NO<sub>x</sub> SUSD emissions limit for the SHR Facility.

In response to the public comments concerning proposed NO<sub>x</sub> SUSD emissions limits, Footprint submitted to MassDEP additional information to refute the comments and demonstrate

that neither the Brockton nor the El Segundo facilities have lower SUSD emission rates.

Specifically, in its December 11, 2013 Letter Footprint explains:

Page 2 of Tetra Tech's August 6, 2013 letter to MassDEP presents a comparison of the most recent relevant GE and Siemens NO<sub>x</sub> start-up and shutdown data. This illustrates that the start-up and shutdown NO<sub>x</sub> emissions are lower for the proposed GE turbine than the comparable quick start turbine offered by Siemens (500F) for the combined cold start-up and shutdown cycle as well as the warm and hot start emissions. The following is the relevant text from the August 6th letter:

The more recent data for the same basic "quick start" Siemens machine (500F) now has 83 lbs NO<sub>x</sub> over 45 minutes. Attachment 2 provides a comparison of this GE and Siemens NO<sub>x</sub> startup/shutdown data. For a combined cold start and shutdown, GE now has (89 + 10=99) lbs NO<sub>x</sub> while Siemens has (83 + 20 = 103) lbs NO<sub>x</sub>. GE has lower NO<sub>x</sub> emissions for both the warm and hot start. So, based on the latest information, there is no advantage to selecting Siemens over GE for NO<sub>x</sub> startup-shutdown emissions.

Exh. I at 3 - 4.

Further this supplemental information expressly addressed Petitioners' erroneous assertion in their comment letter, *see* Petitioners' Comment Letter, Exh. 6 to Amended Petition at 4-5, that the Siemens turbines like the one at the El Segundo facility could or would achieve a NO<sub>x</sub> start-up emissions rate of 36.4 lbs/hr.

We were unable to verify the 12 minute start-up cited by CLF for the El Segundo Power project permitted in 2008, and in fact were told by a plant representative that the current Title V Operating Permit for the facility allows for a 1-hour start-up with NO<sub>x</sub> emissions of 112 lbs. Siemens also offered no such shortened (12 minute) start-up for the Salem "quick start" project but rather offered a 45 minute cold and warm start comparable to GE's but resulting in the higher overall startup/shutdown cycle emissions as noted above.

*Id.* Indeed, in response to an information request to the California South Coast Air Quality Management District, on January 8, 2014 Footprint's engineering consultant received a copy of El Segundo's most current air permit which includes with a maximum hourly limitation for NO<sub>x</sub> during start-up of *112 lb/hr*. *See* El Segundo Air Permit dated October 22, 2013, at §H, p. 15,

attached hereto as Exh. J. That is, the Siemens/El Segundo NO<sub>x</sub> actual permitted start-up limit at 112 lb/hr is greater than the 93.5 lb/hr SHR Project limit and MassDEP did not err by discounting Petitioners incorrect claim that the Siemens turbine at the El Segundo facility could or would be held to a NO<sub>x</sub> start-up limit of 34.6 lb/hr.

With respect to the Brockton facility, Footprint's December 11, 2013 letter also refuted the allegations in Petitioners' Comment Letter:

The Brockton project is based on a "quick start" Siemens SGT6-PAC-5000F combined cycle installation, and has approved SUSD limits of 31.6 lb/hr (startup) and 29.8 lb/hr (shutdown) The startup time is stated as 0.47 hours and the shutdown time is 0.40 hours. Thus, the lb/event values are calculated as 14.9 pounds for a start and 11.9 pounds for a shutdown. Footprint did consider a very similar Siemens turbine subsequent to the approval date of the Brockton permit, and this more recent data for the same basic "quick start" Siemens machine (5000F) now has 83 lbs NO<sub>x</sub> over 45 minutes. For a combined cold start and shutdown, Footprint now has 89 + 10 = 99) lbs NO<sub>x</sub> while the Siemens data provided to Footprint reflects (83 + 20 = 103) lbs NO<sub>x</sub>. GE has lower NO<sub>x</sub> emissions for both the warm and hot start. So, based on the latest information, there is no advantage to selecting Siemens over GE for NO<sub>x</sub> startup/shutdown emissions based on the more recent data.

*December 11, 2013 Letter*, Exh. I at Attachment 1, 4-5. Further, this explanation was expressly included in MassDEP's RTC. RTC, Exh. 3 to Amended Petition at 67. Finally, MassDEP explicitly stated that:

MassDEP environmental engineers reviewed the original Footprint Power plan application and the several supplemental submittals which were made to MassDEP in detail, including information related to the SHR Project's turbines regarding startups, shutdowns and associated emissions. MassDEP based the PSD Fact Sheet and PSD Permit SU/SD numbers on our review of the data which was submitted to MassDEP."

*Id.* at 14 – 15.

Accordingly, even assuming that individual vendors constitute different control technologies – which they do not – the Record demonstrates that in this particular case, the GE

turbine guarantee for SUSD is lower than those of other vendors.<sup>20</sup> Based on this review, MassDEP appropriately rejected Petitioners' arguments and determined that the proposed permit limits for NO<sub>x</sub> SUSD constituted BACT. Petitioners are left with no facts to support their arguments and certainly cannot contend that MassDEP made no attempt to explain this issue. In this case, the Record overwhelmingly demonstrates that the MassDEP exercised its considered judgment when making the BACT determination for NO<sub>x</sub> SUSD emissions limits at the SHR Facility. Accordingly, review of Petitioners' claim must be denied. *See Cape Wind* at 5.

e. There Is No Legitimate Reason To Re-Open The Public Comment Period

As demonstrated in the foregoing sections, Petitioners are simply wrong to suggest that the BACT analysis was "absent" from the public record and somehow not available to Petitioners. Rather, the Record makes clear that the BACT analysis was included in the Application and explained in the Draft PSD Fact Sheet. Further, not only did the Public Notice invite the public to come in to MassDEP and review these materials, but Petitioners' actually took advantage of this opportunity and requested and received from MassDEP copies of the requested application materials – including the BACT analysis.

Not only did the BACT analysis contain detailed information regarding the selection of appropriate permit limits, but also, in response to comments specifically raised by Petitioners during the public comment period, Footprint supplemented the BACT analysis with even more specific information requested by Petitioners. As has been expressly found by the Board, the filing of a supplemental BACT analysis subsequent to issuance of a draft PSD permit but prior to issuance of a final PSD permit does not warrant re-opening of the public comment period. *See In re Metcalf Energy Center*, PSD Appeal Nos. 01-07 and 01-08 (EAB August 10, 2001) ("*Metcalf*

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<sup>20</sup> This underscores the wisdom of the Board's determination in *La Paloma* that individual vendors do not constitute a control technology. As we see in this case, no one vendor offers the lowest guarantees over the entire range of PSD pollutants even though in each instance the control technology is identical.



*Energy*”). In *Metcalf Energy*, as in this proceeding, during the public comment period commenters argued that the permit issuer’s BACT analysis was inconsistent with the 5-step top-down BACT method recommended in the NSR Manual.<sup>21</sup> *Id.* at 10 – 11. In response to these comments, a supplemental BACT analysis was prepared and issued as part of the final PSD permit. *Id.* at 11. Also similar to this proceeding, in *Metcalf Energy* there was no increase in emissions limits in the final PSD permit and the selected pollution control technology was the same as that recommended in the draft PSD permit. Further, in *Metcalf Energy* the Board had only recently in another case upheld similar permit emissions limits for a similar facility.<sup>22</sup> On appeal, the petitioners in *Metcalf Energy* argued that if the permitting issuing authority had properly considered recent permitting decisions and performance data, then the permit issuing authority would have selected lower emissions limits as BACT. *See Id.* at 13, 18-19. In these similar circumstances the Board denied the petitioners’ request for review of the permit issuer’s supplemental BACT analysis, finding that the emissions limits selected by the permit issuing authority “are, at this moment in time, generally accepted as BACT by federal and state regulators for facilities such as Metcalf.” *Id.* at 19.<sup>23</sup>

In addition, Petitioners misstate the regulatory standard for re-opening the public record. The question is not whether the additions to the record are substantial; the question is whether the additions to the record raise substantial new questions or issues. *See e.g., In re Upper*

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<sup>21</sup> Again, Footprint’s Application did include a detailed BACT analysis. *See* footnote 14, p. 12 *infra*. Also, as stated by EPA during the Status Conference, the EPA Comment Letter was not meant to suggest that MassDEP’s BACT analysis was deficient.

<sup>22</sup> The same is true here where in the recently issued *La Paloma* decision, the Board denied review of a permit for a combined-cycle natural gas-fired facility with General Electric 7FA and/or Siemens SGT6-5000F(4) and(5) model combustion turbines. Indeed, the GHG permit limits for *La Paloma* are higher than the emissions limits for the proposed SHR Facility. *See La Paloma* at 12.

<sup>23</sup> The Board also noted that “the Petitioners failed to specify the averaging times, additional costs associated with control technology needed to achieve these limits, or any associated environmental impacts, and thus failed to meet their burden of showing that the data, by itself, warrants applying much lower BACT limits.” *Id.* at 19. Accordingly, the Board stated that it would extend its “traditional deference to the permitting authorities in technical areas such as BACT.” *Id.* at 19 – 20.

*Blackstone Water Pollution Abatement District* NDPES Appeal Nos. 10-09, 10-10, 10-11, and 10-12, slip op. at 22 (EAB March 20, 2011) (In order denying review, Board states that the permit issuer has the discretion to consider and rely upon information, including comments, received after the close of public comment and is not required to reopen the public comment period except where the permit issuer determines in its discretion that the new information it relies upon raises substantial new questions.) Here, any changes from the Draft PSD Permit to the Final PSD Permit were the result of Footprint’s response to issues and questions that were raised during the public hearing process. All of the issues raised by Petitioners either were or could have been raised during the public comment period or are adequately set forth in this proceeding.<sup>24</sup> As was the case with EPA in the *Dominion Energy Brayton Point L.L.C.* case, Footprint’s refined BACT analysis “simply reevaluated the same issues and questions already raised in the permit proceedings . . .” *In re Dominion Energy Brayton Point L.L.C.*, 13 E.A.D. 407, 415, (EAB 2007)

The only significant change from the draft PSD Permit to the Final PSD Permit is that the Final PSD Permit includes significant reductions to air pollutant emissions limits proposed in the Draft PSD Permit. That is, in response to public comments Footprint was able to work with the proposed turbine vendor to clarify its operating assumptions and to obtain important guarantees of lower emissions rates. *See* Footprint Comment Letter, Exh. H. As the Final PSD Permit includes exactly the types of emissions reductions Petitioners requested in their comment letter, there is no reason to re-open the public comment period. In fact, this process of receiving and

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<sup>24</sup> Further Petitioner’s broad and unsubstantiated assertions about the state of the Record are simply wrong: It is not true that “the BACT analysis identified so many lower emission limits set by or on behalf of EPA” – and even if it did Petitioners do not show that MassDEP was wrong not to impose them on this particular facility; it is not true that the BACT analysis was “changed and expanded so drastically” between the draft and final PDS Permits; it is not true that Petitioners did not have the opportunity to comment on lower permit limits – and in fact these issues were specifically raised by Petitioners in their comment letter; and it is not true that the rationale for MassDEP’s judgments is either “vague” or “difficult to understand.”

responding to public comments is precisely what is envisioned by the PSD permitting regulations:

When new issues are raised during the public comment period, the permitting office is authorized to supplement the administrative record with new information and to revise its analysis. *See* 40 C.F.R. §§ 124.17(a) (requiring the response to comments to identify changes to the draft permit and to include a response to all significant comments), .17(b) (authorizing EPA permit issuers to add new material to the administrative record in response to comments), .18(b) (defining the administrative record).”

*Cape Wind* at 10 (internal citations omitted). *See also, In re: City of Palmdale*, PSD Appeal No 11-07, slip op. at 20-29 (EAB September 17, 2012).

The determination of whether and when to reopen a permit for public comment is generally left to the sound discretion of the permitting authority. *Energy Answers* at 31.

MassDEP has not abused its discretion in deciding not to reopen the public comment period.

Also contrary to Petitioners’ claims, an appeal to the Board is precisely the correct forum for Petitioners to air any valid grievances they may have regarding the BACT analysis:

The Board has long held that the opportunity for [the petitioner] to review items added to the administrative record occurred after the Region issued its final permit decision and before the deadline for filing petitions for review with the Board. Similarly, ‘Petitioners’ opportunity to express disagreement with the Region’s final permit decision, including . . . new information added to the record after the close of public comment, is not through a reopened public comment period, but by way of an appeal to the Board.

*Cape Wind* at 10 (internal citations omitted).

Contrary to Petitioners’ assertion and as set forth in detail above, the Record more than adequately responds to significant comments and explains MassDEP’s reasoning. The fact that Petitioners choose to ignore these explanations or choose to disagree with these explanations does not change the fact that MassDEP has, in fact, explained the basis for its decisions. Further, in neither the permitting proceedings below nor as part of this appeal have Petitioners introduced

any evidence to controvert any of MassDEP's explanations. The PSD Permit proceedings have established a comprehensive Record demonstrating that not only did MassDEP exercise its discretion properly, but also that the decision-making process is adequately explained. It would be an entirely unfair result to misuse Footprint's good faith effort to respond substantively to public comments and to work with its vendor to lower permit limits as justification to impose additional delay on the proposed Project.

Finally, as explained in Footprint's Opposition, the timely resolution of this matter and the timely construction of the proposed Project are essential to ensuring that there is enough electricity in Massachusetts. Accordingly, Petitioners' request to reopen the public comment period should be denied as the delay would be uniquely and critically detrimental not only to this project but also to the citizens of the Commonwealth of Massachusetts.

In summary, Petitioners' quest to reopen the record should be denied because the refined BACT analysis presents no significant new questions or issues. The Amended Petition simply rehashes arguments Petitioners have already raised or could have raised during the public comment period. Moreover, the Amended Petition advances no valid claim or evidence demonstrating that the BACT analysis was anything but proper, and MassDEP's decision is adequately supported by and explained in the Record.

## **II. There is No Error in The PSD's Air Monitoring Analysis**

### **a. The Use Of Regional Air Monitoring Data Is Supported By The Record**

Petitioners argue that MassDEP's use of existing ambient data from a monitoring site in Lynn, MA ("Lynn Monitoring Site") is not supported by the Record. Again, Petitioners fail to meet their threshold burden of specifying in the Amended Petition where in the comments this issue was first raised and the Board certainly has the discretion to dismiss this claim on that basis

alone. *Energy Answers* at 10. However, Footprint acknowledges that this issue was raised in Petitioners' comments and we address it below. In summary, the Record shows that MassDEP's use of existing ambient data was reasonable and fully supported by the evidence. Moreover, MassDEP fully considered Petitioners' comments on this issue.

Petitioners acknowledge that existing ambient data may be used if it is "representative of the air quality in the site." NSR Manual at 18-19. MassDEP reasonably concluded that use of ambient data from the Lynn Monitoring Site was representative of air quality at the proposed site based on several factors. First, MassDEP noted that the Lynn Monitoring Site was located only 5.9 miles away, in relatively close proximity to the proposed site. *See* Final PSD Fact Sheet, Exh. 2 to Amended Petition at 20. Second, MassDEP concluded that use of data from the Lynn Monitoring Site was actually conservative because Lynn is a more industrialized and densely populated area than the proposed site, which is located adjacent to the Salem Harbor. *Id.* This difference will be heightened after the existing coal plant located on the SHR Site is closed before the SHR Facility commences operation. *Id.*

MassDEP also pointed out that the Lynn Monitoring Site is closer to the metropolitan Boston area than the proposed SHR Site. This means that concentrations of pollutants from sources located in the Boston area that may be transported to the SHR Site would first pass the Lynn Monitoring Site. *Id.* Finally MassDEP noted that two major industrial sources, the GE Aircraft Engine Facility in Lynn, MA and the Wheelabrator Saugus waste to energy facility are located less than two miles from the Lynn Monitoring Site, but approximately seven miles from the SHR site. *Id.* Because MassDEP required the SHR Facility to model these two facilities as interactive sources, it is likely that use of the ambient data conservatively double-counts the impact of the GE and Wheelabrator facilities. *Id.*

MassDEP expanded on its rationale for the use of ambient data from the Lynn Monitoring Site in its RTC. While acknowledging that the immediate surroundings of the Lynn Monitoring Site were somewhat more rural than the immediate surroundings of the SHR Site, MassDEP pointed out that the Lynn Monitoring Site measures regional air pollution being transported from highly populated and industrial areas in Lynn and beyond located upwind. RTC, Exh. 3 to Amended Petition at 17. Thus, the data from the Lynn Monitoring Site will likely reflect emissions characteristic of a more densely populated and industrial area, particularly since the existing coal facility at the SHR Site will close before the proposed Facility commences operation. In addition, the SHR Site is located adjacent to the Salem Harbor, a large body of water with more limited sources of pollution. *Id.*

MassDEP also re-affirmed that emissions from the GE and Wheelabrator facilities are located in the south to southwest wind sector that would transport their emissions to the Lynn Monitoring Site. *Id.* This means that the emissions from these two facilities would be included both in the ambient data and the interactive modeling. *Id.*

The Record is clear that MassDEP fully addressed Petitioners' comments and that MassDEP's conclusion that ambient data from the Lynn Monitoring Site was "representative of air quality" at the SHR Site is reasonable and supported by ample evidence. Petitioners' arguments to the contrary are based upon errors of fact and misinterpretation of applicable regulatory standards.

Petitioners' only factual argument is the bald assertion of "the awkward fact that the monitoring location is located in a 220-acre park, which is manifestly different from the SHR location in the heart of a densely settled Boston suburb." Amended Petition at 16. In the first place, Petitioners are incorrect that the Lynn Monitoring Site is located in the Lynn Woods

Reservation. As indicated in materials available on MassDEP's website, including but not limited to the 2012 Air Monitoring Network Plan, the Lynn Monitoring Site is actually located on the property of the City of Lynn Water Treatment Plant at 390 Parkland Avenue and is approximately 650 feet outside the closest boundary of the Lynn Woods Reservation. As MassDEP pointed out, the SHR Site is located next to the Salem Harbor, a large waterway. Petitioners never even address, much less refute, MassDEP's assertion that the Lynn Monitoring Site is actually closer to Boston than the SHR Site and thus, reflects emissions from a more densely populated and industrial area.

Petitioners also misstate the requirements of the Ambient Modeling Guidelines for PSD ("Guidelines"). The Guidelines require that the existing ambient data be "representative of:

- (1) The maximum concentration increase from the proposed source;
- (2) The maximum air pollutant concentration from existing sources;
- (3) The maximum impact area.

Without any citations or reasoned argument, Petitioners arbitrarily change the provisions of the Guidelines to require that the ambient air data actually "be" the location of the maximum concentrations of the proposed source, existing sources and the two combined – not be "representative" of those locations. Amended Petition at 15.

Such a standard would virtually foreclose use of existing data in every circumstance unless the air monitoring site happens to be located on the very site of the proposed facility. Only data collected on the site itself has any possibility of being the location of "the maximum concentration increase from the proposed facility." Petitioners' unilateral change in the language of the Guideline would render the representative test irrelevant and all but eliminate the use of ambient air data. Clearly, the NSR Manual and the Guidelines are to the contrary.

Finally, Petitioners claim that MassDEP allowed the use of ambient air data in place of pre-construction air modeling because modeled concentrations of certain emissions of the proposed SHR Facility were below Significant Monitoring Concentrations (“SMC”) in contravention of the recent decision in *Sierra Club v. EPA*, 705 F. 3d 458 (D.C. Cir. 2013) (“*Sierra Club*”).<sup>25</sup> Amended Petition at 15. However, EPA guidance on the *Sierra Club* decision confirms that existing ambient data may be used in place of pre-construction monitoring if it is representative.<sup>26</sup> As discussed above, MassDEP’s Final PSD Fact Sheet and RTC are clear that the agency allowed the use of ambient data from the Lynn Monitoring Site because it reasonably determined that it was representative.

b. There Is No Error In MassDEP’s NAAQS Compliance Analysis

Petitioners claim that MassDEP erred in failing to consider whether the SHR Facility’s insignificant emissions could contribute to a violation of a National Ambient Air Quality Standard (NAAQS) in violation of *Sierra Club*. However, the Petitioners did not raise this issue

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<sup>25</sup> In fact, Petitioners misunderstand the operative details of the *Sierra Club* ruling. In the *Sierra Club* ruling, the Court only vacated the SIL provisions for PM-2.5 as codified at 40 C.F.R. § 51.166(k)(2) and 40 C.F.R. § 52.21(k)(2). These are the PSD regulations, and as written prior to vacature a source was automatically exempted from conducting any cumulative impact analysis under PSD review if its impacts were less than SILs. That exemption is no longer in the PSD regulations, per the *Sierra Club* ruling. However, Petitioner ignores that SIL provisions have been retained at 40 CFR § 51.165(b)(2). As stated in the *Sierra Club* ruling:

*The rule also codified the PM2.5 SILs in the EPA’s regulations on new source review and permitting requirements at 40 C.F.R. § 51.165(b)(2). Unlike the PSD regulations (40 C.F.R. §§ 51.166, 52.21), § 51.165(b)(2) does not use the SILs to exempt a source from conducting a cumulative air quality analysis. Instead, § 51.165(b)(2) states that a proposed source or modification will be considered to cause a violation of a NAAQS when that source or modification would, at a minimum, exceed the SIL in any area that does not or would not meet the applicable NAAQS.*

*Sierra Club* at 9. The *Sierra Club* ruling specifically states it does not vacate any SILs at 40 CFR § 51.165(b)(2). Footprint proceeded with cumulative impact analyses for both PM2.5 and NO<sub>2</sub>, consistent with EPA and MassDEP modeling guidance, incorporating the operative SIL provisions at 40 CFR § 51.165(b)(2). MassDEP exercised its lawful authority and regulatory judgment in properly using the SILs as promulgated at 40 CFR § 51.165(b)(2) to conclude that the SHR Facility satisfies the NAAQS demonstration requirements, including those for NO<sub>2</sub>.

<sup>26</sup> See Circuit Court Decision on PM<sub>2.5</sub> Significant Impact Levels and Significant Monitoring Concentration, Questions and Answers, US EPA, March 4, 2013 (“EPA Guidance”), attached hereto as Exh. K.



below and therefore do not meet their threshold burden of properly preserving the issue.<sup>27</sup> *See Energy Answers at 10-11; In re New Eng. Plating*, 9 E.A.D. 726, 732 (EAB 2001); *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 230-31 (EAB 2000) (The Board frequently has emphasized that, to preserve an issue for review, comments made during the comment period must be sufficiently specific).

Nonetheless, even if the Board chooses to allow this argument, review should be denied as current EPA guidance makes clear that the use of the SILs including those for PM<sub>2.5</sub> are still perfectly valid in certain circumstances in which ambient background concentrations are relatively low. That is exactly the case here.

**i. MassDEP Adequately Responded to EPA's Comment and its Analysis Fully Comports with EPA's Guidance in Light of *Sierra Club*.**

In their Amended Petition the Petitioners argue that MassDEP's response to comments made by the EPA runs afoul of *Sierra Club* and EPA guidance in response to that decision. Petitioners mischaracterize both the holding in *Sierra Club* and the EPA guidance issued in response to that decision. Specifically, Petitioners assert that *Sierra Club* and the EPA guidance automatically require additional modeling to determine if the insignificant emissions of the SHR Facility cause a violation of the NAAQS. Petitioners' arguments ignore the content of EPA's comments on this issue and MassDEP's response to those comments. MassDEP committed no error of law in its treatment of this issue. EPA states in its comment letter:

As was noted by EPA in a recent rulemaking and in a recent court decision considering that rule, there may be locations where the background

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<sup>27</sup> Petitioners vaguely mention air dispersion modeling by pointing out in their comments that there was a reduction the 1-hour NAAQS for NO<sub>2</sub>, from 188 µg/m<sup>3</sup> to 166 µg/m<sup>3</sup>. *See* Petitioners' Comment Letter, Exh. 6 to Amended Petition at 7. As the Board has previously stated, Petitioners cannot raise more specific concerns for the first time in this appeal. *See Pico Pio Energy Center*, PSD Appeal Nos. 12-04 through 12-06, slip op. at p.37 (EAB Aug. 2, 2013)

concentration is close to the NAAQS and the difference in the background ambient air concentration levels and the NAAQS is less than the concentration level 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 demonstrate that the proposed constructions will not cause or contribute to a violation of NAAQS or PSD increments.

Exh. 7 to Amended Petition at 2. EPA also suggests that to ensure NAAQS and PSD increments are protected in all instances MassDEP should compile information on the background concentration levels in the areas where the project is located. EPA further states “[i]f the data shows that the difference between the NAAQS and background concentration levels is greater than the applicable SIL values, then EPA believes it would be sufficient in most cases for the permitting authorities to conclude that sources with impacts below the SIL value will not cause or contribute to a violation of the NAAQS without the need for additional modeling.” *Id.*

The Record indicates that MassDEP and Footprint did exactly as the EPA suggested. In fact, prior to the Draft PSD Permit being issued, and as a result of the court’s decision in *Sierra Club*, Footprint supplemented its application and on April 12, 2013 submitted updated information consisting of representative and conservative monitoring data to characterize criteria pollutant ambient background concentrations. The updated data summarized data from 2009 through 2012 for PM<sub>2.5</sub> from MassDEP’s Lynn Monitoring Site.<sup>28</sup>

In addition, in response to the EPA Comments, Footprint submitted further information on December 11, 2013 which included a comparison of the SILs to the difference between the representative background concentrations and the NAAQS for all modeled pollutants and

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<sup>28</sup> This updated data included the 2012 data which was released subsequent to the application being filed. The updated data reduced the 24-hour and annual PM<sub>2.5</sub> background concentration from 19.2 and 7.3 micrograms per cubic meter, to 18.9 and 7.2 micrograms per cubic meter, respectively, but the 24-hour PM<sub>10</sub> concentration increased from 35 to 41 microgram per cubic meter. Compliance with the PM<sub>10</sub> NAAQS has been shown by a wide margin so this background increase does not affect the compliance situation for PM<sub>10</sub>. The 1-hour NO<sub>2</sub> background concentration did not change.

averaging periods. This data further indicated that the difference between the background concentration and NAAQS concentration is significantly greater than the applicable SIL concentration for all pollutants and averaging periods. Therefore, the use of the SILs in the dispersion modeling analyses is fully consistent with EPA's guidance. *December 11, 2013 letter*, Exh. I at 2).

Additionally, EPA's comment was comprehensively addressed by MassDEP in the RTC where MassDEP states:

MassDEP has compiled Table B (below) listing background ambient concentrations, the applicable NAAQS, background minus NAAQS, and the applicable SIL. The table is presented to address concerns that the initial modeling to determine impact significance/insignificance, and therefore compliance with NAAQS/PSD Increments in the case of insignificant impact findings, might not be adequate.

RTC, Exh. 3 to Amended Petition at 18.

MassDEP continues by explaining that in all cases the difference between the NAAQS and background ambient concentration levels is greater than the applicable SIL value. MassDEP determined that it will follow EPA guidance<sup>29</sup> which notes that it would be sufficient in most cases for permitting authorities to conclude that sources with impacts below the SIL values will not cause or contribute to a violation of the NAAQS, and additional cumulative modeling is not needed. Further, as explained more fully above, MassDEP determined that the Lynn Monitoring

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<sup>29</sup> The pertinent excerpt of this recent EPA guidance is as follows:

As a result of the Court's decision, Federal PSD Permits issued henceforth by either the EPA or a delegated state permitting authority pursuant to 40 CFR 52.21 should not rely on the PM<sub>2.5</sub> SMC to allow applicants to avoid compiling air quality monitoring data for PM<sub>2.5</sub>. Accordingly, all applicants requesting a federal PSD Permit, including those having already applied for but have not yet received the permit, should submit ambient PM<sub>2.5</sub> monitoring data in accordance with the Clean Air Act requirements whenever either direct PM<sub>2.5</sub> or any PM<sub>2.5</sub> precursor is emitted in a significant amount. In lieu of applicants setting out PM<sub>2.5</sub> monitors to collect ambient data, applicants may submit PM<sub>2.5</sub> ambient data collected from existing monitoring networks when the permitting Authority deems such data to be representative of the air quality in the area of concern for the year preceding receipt of the application. We believe that applicants will generally be able to rely on existing representative monitoring data to satisfy the monitoring data requirement.

See EPA Guidance Exh. K at 2.

Site, located approximately 5.9 miles to the southwest of the proposed SHR Project, is representative of the proposed SHR Project site due to its proximity and that the use of the data from this monitoring site is conservative due to its industrial nature, population and proximity to Boston. RTC, Exh. 3 to Amended Petition at 19-20.

The Final Fact Sheet also thoroughly explains MassDEP's determination that EPA guidance does not require additional cumulative modeling by stating:

The results of the cumulative impact assessment, presented in Table 9, demonstrate that the proposed SHR Project's worst case emissions will result in compliance with the National Ambient Air Quality Standards (NAAQS). Note that while impacts related to secondary PM<sub>2.5</sub> emissions have not been explicitly quantified, sufficient margin is available between the predicted impact concentrations from direct PM<sub>2.5</sub> emissions and the NAAQS, that the NAAQS would not be threatened by additional PM<sub>2.5</sub> emissions. This conclusion is further supported by the fact that the maximum PM<sub>2.5</sub> impacts are predicted very close to the SHR Project fence line, where secondary PM<sub>2.5</sub> emissions would not have sufficient time to develop, and therefore, could only be additive to predicted project impacts where impacts of direct PM<sub>2.5</sub> emissions are less than what has been reported for the compliance demonstration.

Final PSD Fact Sheet, Exh. 2 to Amended Petition at 21-22.

Here, the ambient air quality background is not even close to the NAAQS. In the Salem region the PM<sub>2.5</sub> background is only slightly over half of the NAAQS and, therefore, use of the prior PM<sub>2.5</sub> SILs is appropriate in the case of the ambient air quality impact analysis for the SHR Facility because the background concentrations plus the SILs still leave a significant margin before the NAAQS would come close to being jeopardized.

Faced with the vast information in the Record (highlighted above), there is no basis to support Petitioners' claim that MassDEP erred in "failing to consider whether SHR's "insignificant emissions could contribute to violation of NAAQS." Amended Petition at 17. MassDEP explicitly did so, consistent with the EPA Guidance. Petitioners fail to acknowledge,

much less critique MassDEP's analysis of this issue and its response to EPA comments.<sup>30</sup>

Accordingly, it is clear that Petitioners' claim for review, assuming the Board chooses to address it, must be rejected since the record demonstrates that MassDEP committed no error of law and exercised considered judgment consistent with EPA guidance when determining that additional monitoring is not required. *Cape Wind at 5, 13.*

### **III. MassDEP Properly Excluded VOCs From The PSD BACT Analysis**

In the Amended Petition, the Petitioners erroneously state that MassDEP should have conducted a BACT analysis for VOCs. First of all, the "applicability analysis" which Petitioners now attack is the same analysis as that set forth in the Application and the Draft PSD Permit. However, Petitioners did not submit any comments disputing this methodology. This issue clearly could have been raised during the comment period. As clearly stated in the regulations, the burden is on the Petitioners to establish that they could not have raised this issue before. As Petitioners offer no such argument, review of this issue at this late date should be denied.

However, even if the Board chooses to consider Petitioners' argument, it can be summarily rejected as it is based on a misinterpretation of applicable regulations which clearly state that only pollutants above certain thresholds are subject to PSD analyses. For VOC, the regulations specify that the threshold amount is 40 tpy. 40 CFR § 52.21(b)(23)(i) Since potential emissions of VOC at the proposed SHR facility will not equal or exceed 40 tpy, VOCs are not subject to PSD review.

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<sup>30</sup> For example, Petitioners argue that the fact that the air modeling demonstrates a worst case maximum 1 hour NO<sub>x</sub> combined impact of 166 µg/m for the SHR Facility and interactive sources, 22 µg/m below the NAAQS somehow demonstrates that the SHR Facility will cause a violation of the NAAQS in some other unidentified location. *See* Amended Petition at 19. This type of unsubstantiated, speculative argument is not justification for review of the Final PSD Permit. *See e.g., Russell City* at 107, fn 63 (internal quotation omitted). ("The Board will not overturn a permit provision based on speculative arguments.")

The fundamental assumption that PSD review is applicable only for those pollutants whose emissions exceed the threshold amount is entirely consistent with recent EPA permitting practice. See PVEC Final Permit and Final Fact Sheet at p. 8, Table 1, Exh. L (PSD review not applicable where facility potential to emit VOCs was 24.8 tpy). Moreover, previous EPA orders denying review have endorsed the interpretation advanced by Footprint and consistently used by EPA. See *In the matter of Monroe Electric Generating Plant Entergy Louisiana, Inc.*, Order Partially Granting and Partially Denying Petition for Objection to Permit, Petition No. 6-99-2, (Administrator, EPA, dated June 11, 1999) attached hereto as Exhibit M.

### **Conclusion**

For all of the foregoing reasons, Footprint respectfully requests that the Board deny the Amended Petition for Review.

Respectfully Submitted

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Dated: April 7, 2014

**STATEMENT OF COMPLIANCE WITH WORD LIMITATION**

Pursuant to 40 C.F.R. § 124.19(d)(iv), this Response to Amended Petition complies with the word limits set by the Board. According to the word count function in Microsoft Word, this Response contains 13,727 words.

/s/ Lauren A. Liss  
Lauren A. Liss

**CERTIFICATE OF SERVICE**

I hereby certify that on the 7th day of April, 2014, copies of the foregoing Response to Amended Petition in the matter of Footprint Power Salem Harbor Development LLP, Appeal No. PSD 14-02 were served by First Class Mail to the following:

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