



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
5 POST OFFICE SQUARE SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

October 30, 2013

James Belsky, Permit Chief  
Massachusetts Department of Environmental Protection  
Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

Re: Salem Harbor Redevelopment Permit

Dear Mr. Belsky:

Thank you for the opportunity to review the Massachusetts Department of Environmental Protection's (MassDEP) proposed 310 CMR 7.00: Appendix A and 310 CMR 7.02 Air Quality Plan Approval and separate draft Prevention of Significant Deterioration (PSD) Permit with Fact Sheet for the Salem Harbor Redevelopment (SHR) project. The proposed project consists of a new 692 MW natural gas fired quick start combined-cycle electric generating facility located at the site of the existing Salem Harbor Station. We have reviewed your documents and provided the enclosed comments.

Again, thank you for the opportunity to review your draft permit. If you have any questions, please call Brendan McCahill at (617) 918-1652.

Sincerely,

A handwritten signature in cursive script that reads "Ida E. McDonnell".

Ida E. McDonnell, Manager  
Air Permits, Toxics and Indoor Programs Unit



## ENCLOSURE

### EPA's Comments on MassDEP's Proposed Air Quality Plan Approval and Draft PSD Permit for Footprint Power Salem Harbor Development LP's Salem Harbor Station Redevelopment Project, Salem, MA

#### **1. Draft PSD Permit Fact Sheet: Best Available Control Technology (BACT) Analysis**

a. The Fact Sheet's BACT analysis only provided the results of the BACT analysis but not the analysis itself. Without the analysis showing how the MassDEP reached its permit decisions, it is difficult for the public or EPA to provide informed and effective comments regarding the MassDEP's SHR BACT decisions. We understand the MassDEP is relying on the BACT analysis provided in Footprint's PSD permit application. EPA recommends the MassDEP attach the applicant's BACT analysis as an appendix to the Fact Sheet or include a hyperlink that links the Fact Sheet to the applicant's BACT analysis.

In particular, the Fact Sheet states that permit applicants are required to follow a top-down BACT analysis to determine BACT for any given project. We understand the MassDEP procedures are modeled after EPA's October 1990 draft New Source Review Workshop manual and the MassDEP's own June 2011 BACT guidance document. This analysis should be available for the public and EPA to review.

b. The fourth paragraph of page 9 in the Fact Sheet in the section entitled "NO<sub>x</sub>," includes the following statement, "Since determinations of LAER and BACT are similar, and LAER is more stringent than BACT, the control technology evaluation for NO<sub>x</sub> reflects the requirements of both BACT and LAER." This statement is not accurate. While Lowest Achievable Emission Rate (LAER) and BACT may result in similar emission rates for the pollutant under review, LAER and BACT are separate technology standards used in different permitting programs with different policy and regulatory requirements. EPA recommends the MassDEP document that the applicant needs to meet both BACT and LAER technology requirements separately.

c. A BACT analysis requires the permitting agency to evaluate the energy, environmental and economic impacts for any control option to determine if any significant collateral impact exists that would preclude a control option to be selected as BACT. EPA recommends the MassDEP's BACT analysis follow the procedures developed in its 2011 "top-down" BACT guidance document and document the results of the analysis in its Fact Sheet.

#### **2. Draft PSD Permit Fact Sheet: Impact Analysis Based on Modeling**

a. Similar to comment 1.a, the Fact Sheet only provided the results from the modeling analysis but not the analysis itself. EPA understands the full modeling analysis can be a voluminous document that is difficult to transport. EPA recommends the Fact Sheet include a hyperlink to the applicant's analysis to provide easy access for the public and EPA to review the analysis.

b. The second paragraph on page 19 states, "Compliance with the NAAQS and the PSD increments is therefore, according to EPA guidance, demonstrated for all pollutants and the averaging periods for which the impacts are below the SILs." The use of Significant Impact Levels (SILs) alone as a screening tool to show compliance with National Ambient Air Quality Standards (NAAQS) and PSD increments may not be adequate. 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 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.

To ensure NAAQS and PSD increments are protected in all instances, EPA suggests that MassDEP compile information on the background concentration levels in the areas where the project is located. If 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.