



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Fax Transmittal Memorandum

To: Bill White MCEC

Fax #: 617-315-9356

From: Ed Bell

Date: 9-20-2013

Re: South Terminal, NBE

Pages, including cover sheet: ~~Four (4)~~
Four (4)

Comments: MHC 9/20/2013 to EPA

If this communication has been received in error, please notify us immediately.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

September 16, 2013

Brona Simon
State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

RECEIVED

SEP 16 2013

MASS. HIST. COMM

48896

Re: South Terminal Project
New Bedford Harbor State Enhanced Remedy

Dear Ms. Simon:

On May 20, 2013, the Commonwealth of Massachusetts submitted a request to the United States Environmental Protection Agency, Region 1 ("EPA") for approval of a Second Modification (the "Second Modification") to the Agency's November 19, 2012 Final Determination for the South Terminal Project ("the Final Determination"). The Commonwealth's letter requested that the Agency approve, among other modifications, the inclusion of blasting as a rock removal method. As part of its pre-construction investigations, the Commonwealth determined that blasting in three specific areas in the New Bedford Harbor channel between Palmer's Island and the shoreline at the terminal location would be necessary to construct the bulkhead wall of the terminal facility.

EPA is in receipt of your September 6, 2013 letter concerning the Palmer Island Light Station (the Light Station), a historic property listed on the National Register located within the potential area of affect of the South Terminal Project as contemplated by the proposed Second Modification. More specifically, the Light Station is located on Palmer's Island, which is at the outer edge of the 1500 foot zone where potential vibrations may occur from blasting. Blasting was not addressed in EPA's November 19, 2012 Final Determination. Accordingly, the Light Station was neither included in the Commonwealth's previous historic property assessments nor addressed in our September 28, 2012 letter to you concerning the Agency's determination that the proposed South Terminal Project will not affect historic properties. As a result, your September 6, 2013 letter encouraged EPA to determine whether or not blasting has the potential to affect the Light House.

In a September 11, 2013 memorandum from the Commonwealth's contractors in support of its request to allow blasting, GZA GeoEnvironmental Inc. presented the modeled anticipated maximum vibration for the Light Station structure that could potentially result from the planned blasting program. That maximum estimated vibration, or peak particle

velocity ("PPV"), was 0.034 in/sec, as calculated using a standard engineering equation and site-specific information. The Massachusetts Building Code, at 527 CMR 13.09, regulates allowable maximum vibrations from blasting activities. As noted in the code, "allowable limits are based, with a conservative factor of safety, upon extensive government, university, and engineering research which has established the amount and character of vibration so as to prevent damage and to insure the safety of the public and the protection of property adjacent to the blast area." The most conservative limit established in the Massachusetts Building Code for PPV to ensure the protection of structures with plaster is <0.5 in/sec. As such, the PPV estimated for the Light Station as a result of the proposed blasting is approximately 15 times lower than the allowable maximum vibration for potential damage to plaster structures. A copy of GZA GeoEnvironmental Inc.'s September 11, 2013 memorandum is included as Attachment A.

Even with this margin of safety, the Commonwealth has included additional measures to ensure that the Light Station is protected from blasting impacts. In particular, in partnership with the New Bedford Harbor Development Commission, the Commonwealth conducted extensive pre-blast photography and a video of the Light Station to establish pre-blast conditions, and will take post-blast photographs and a video of the Light Station to document post-blasting conditions. The Commonwealth will also conduct public informational meetings to describe the blasting events. The Massachusetts Clean Energy Center will also conduct a pre-construction structural review of the Light Station. A description of the additional measures is included in a September 10, 2013 letter from the Massachusetts Clean Energy Center to Carl Dierker, EPA, and attached as Attachment B.

In addition, the Commonwealth will take real-time measurements of the actual vibrations generated during blasting to confirm modeling results. In the unlikely event that actual vibrations exceed modeling results and/or impacts are detected during implementation of the Project, as a condition of its approval, EPA will require the Commonwealth to provide immediate notification to EPA. The Agency will immediately engage in consultation with the Massachusetts Historical Commission, the Commonwealth, and the City of New Bedford to discuss and implement measures to avoid, minimize, or mitigate potential impacts to the Light Station.

The Light Station is owned and maintained by the City of New Bedford. On September 13, 2013, EPA received a letter from New Bedford Mayor John Mitchell acknowledging the historic value of the Light Station to the City and describing the City's view of the modeling performed by GZA. In his letter, the Mayor expressed his belief that the Commonwealth's "efforts are appropriate to give the public confidence that the blasting will not place the lighthouse in jeopardy." A copy of Mayor Mitchell's September 13, 2013 letter is attached as Attachment C.

EPA has considered the blast modeling performed by the Commonwealth's consultant, the September 10, 2013 letter from the Massachusetts Clean Energy Center, the September 13, 2013 letter from New Bedford Mayor Mitchell, and your letter to EPA

dated September 6, 2013. **In light of this modeling and the actions that will be taken to avoid effects to historic properties, in accordance with 36 CFR 800.4, EPA has concluded that approval of the Second Modification will not affect historic properties.** If you have any questions regarding this finding, contact LeAnn Jensen at (617) 918-1072.

It is EPA's understanding that the Commonwealth, through the Massachusetts Executive Office of Energy and Environmental Affairs and the Massachusetts Clean Energy Center, has a strong interest in proceeding with the modifications to the Project, including the blasting program, to meet project timelines. Therefore, we would appreciate it if you could inform us at your earliest convenience whether you object to our determination, and would be happy to meet with you and the Commonwealth later this week to discuss any remaining issues.

In any event, in accordance with the Advisory Council regulation at 36 CFR 800.4, please respond within 30 days of your receipt of this letter. If we do not hear from you within this time period, we will assume that you concur with the Agency's finding and will proceed with our final decision concerning the Commonwealth's Second Modification, subject to the provisions contained in 36 CFR Section 800.13 for treating historic properties discovered during implementation of the Project.

Sincerely,



James T. Owens, III
Director, Office of Site Restoration and Remediation

CONCURRENCE. *Brona Simon*
9/20/13
BRONA SIMON
STATE HISTORIC
PRESERVATION OFFICER
MASSACHUSETTS
HISTORICAL COMMISSION RC. 48896

Attachments

- cc: Bettina Washington, Wampanoag Tribe of Gayhead (Aquinnah)
- Ramona Peters, Mashpee Wampanoag Tribe
- Victor Masone, Massachusetts Bureau of Underwater Archaeological Resources
- Gary Davis, Jr., Executive Office of Energy and Environmental Affairs
- Chet Myers, Apex Companies, LLC
- LeAnn Jensen, U.S. Environmental Protection Agency, Region 1