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April 27, 2007

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS  
ON THE  
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Thomas A. Watson Generating Station  
PROJECT MUNICIPALITY : Potter Road - Braintree  
PROJECT WATERSHED : Weymouth Fore River  
EOEA NUMBER : 13830  
PROJECT PROPONENT : Braintree Electric Light Department (BELD)  
DATE NOTICED IN MONITOR : March 21, 2007

As Secretary of Environmental Affairs, I hereby determine that the Draft Environmental Impact Report (DEIR) submitted on the above project **adequately and properly** complies with the Massachusetts Environmental Policy Act (G. L., c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00).

As described in the DEIR, the proposed project consists of the construction of a rated 116 megawatt (MW) quick-start, simple-cycle, electric generating station (approximately 17,000 square feet (sf)). The generating station will have the capability to fire natural gas or ultra-low sulfur diesel (ULSD) oil, both of which are available at the site. It will be equipped with water injection and a Selective Catalytic Reduction (SCR) System for Nitrogen Oxide (NOx) control and an oxidation catalyst for control of carbon monoxide (CO2) and Volatile Organic Compounds (VOC) emissions. The two vent stacks are anticipated to be approximately 100-feet in height. Power from the new generating unit will feed into the existing on-site 115 kilovolt (kV) switch yard. The proponent's site contains approximately 23 acres of which about 2.8 acres will contain the new generating station. The 2.8 acre area is occupied by the decommissioned "Potter I" generating station (about 8,100 sf). The existing decommissioned station will be demolished. The proponent's 23-acre site also contains the "Potter II" generating station and several other buildings.

This project requires a mandatory EIR. The project will require a Major Comprehensive Air Plan Approval (BWP AQ13), a Modification to its Operating Permit Program, and a Chapter

91 Waterways License for a nonwater-dependent use from the Department of Environmental Protection (MassDEP). It will require an approval to construct and operate from the Energy Facilities Siting Board (EFSB). The project will need to obtain an Above Ground Storage Tank Permit (502 CMR 5.00) from the State Fire Marshal's Office. On March 23, 2006, the proponent received legislative authorization for a design-build project. The project must comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from a construction site and a Prevention of Significant Deterioration (PSD) Permit from the U.S. Environmental Protection Agency (EPA). It may need to undergo Federal Consistency Review by the Massachusetts Coastal Zone Management (MCZM) Office. The project will require an Order of Conditions from the Braintree Conservation Commission. MEPA jurisdiction is limited to those aspects of the project within the subject matter of state permits and that may have significant environmental impacts (air quality/noise, waterways, wetlands, stormwater, and energy generation).

The proposed project will be connected to existing municipal water and sewer service. It will consume between 106,000 to 117,000 gallons per day (gpd) of water and will generate a nominal amount of increased wastewater flow.

#### **Review of the DEIR:**

The DEIR included a detailed project description with a summary/history of the project. It contained existing and proposed site plans. The DEIR identified the location and capacity for storage tanks on the project site. It described each local, state, and federal agency action required for the project and identified how the project is consistent with the applicable performance standards. The project is compatible with zoning, regional planning, and Executive Order 385. The proponent is proposing to operate the power plant with no restrictions on the number of operating hours.

The DEIR compared the Preferred Alternative, the No-Build Alternative, an alternative generating station on the Allen Street Parcel, and an alternative generating station site in a non-coastal area on the proponent's 23-acre site. It described the footprint for each alternative, which included detailed plans showing the proposed versus the existing grades; quantifying the amount of fill proposed; and any changes proposed. The DEIR considered the extent of the inundation zones associated with hurricanes, called SLOSH zones (Sea, Land, and Overland Hazards associated with hurricanes). It considered the effect of relative sea level rise on the project site and the vulnerability of the project components to coastal flooding and storm damage. The analysis presented the alternative configurations at the site and at Allen Street, and it identified the advantages and disadvantages of the Preferred Alternative. The DEIR provided a comparative analysis that showed the differences between the environmental impacts associated with each of the alternatives.

In the DEIR, the potential emissions from the proposed project are calculated based on 8,760 hours per year of full load operation (5,880 hours on natural gas and 2,880 hours on

ULSD). The DEIR discussed the Clean Air Act, the Prevention of Significant Deterioration (PSD) Review Process – including the National Ambient Air Quality Standards (NAAQS), Increments, Air Quality Analysis, Emission Control Technology – Top Down Best Available Control Technology (BACT) for all pollutants, Lowest Achievable Emission Rate (LAER) for NO<sub>x</sub>, and the Public Participation Element, Non-Attainment Review, and Good Engineering Practice (GEP) Stack Height. It discussed emissions from construction activities, including emissions from diesel engine construction equipment and from fugitive dust sources. The DEIR identified the location of sensitive receptors to the proposed facility. It discussed the existing major air pollution sources in the area (100 ton sources within 10 kilometers (Km) and 1,000 ton sources within 20 Km).

The DEIR estimated and analyzed air quality monitoring data for existing and proposed conditions. It estimated controlled and uncontrolled emissions; including criteria and non-criteria pollutants, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>). The DEIR developed a top down BACT analysis for all pollutants. It considered the potential toxic air pollutants. The potential emissions, impacts, and the risks were assessed in the DEIR. The proponent proposed measures to alleviate dust, noise, and odor nuisance conditions during and after construction. The DEIR identified the number of operating hours the proposed facility would be used for a worst case scenario (365 days). Meteorology and climatology for the area will be addressed in the Air Quality Protocol, which will be submitted to MassDEP.

The DEIR included air quality modeling using EPA-approved models for all relevant air pollutants. The areas of significant impacts were identified and the proponent has proposed to obtain offsets for NO<sub>x</sub> at a minimum ratio of 1.26:1. An interactive analysis was done to take into account other large sources in the area, elevated terrain features, and nearby building heights. The Division of Air Quality Control (DAQC) Source Review Criteria for Allowable Ambient Nitrogen Oxide Concentration (short-term NO<sub>x</sub> policy) were applied to this project. The proponent has committed to comply with DEP's Clean Air Construction Initiative. Schematic diagrams were prepared showing volume, direction, temperatures, and residence times of gases and liquids through the facility.

The DEIR examined the options that avoided impacts to inland and coastal wetland resource areas, their associated buffer zones, riverfront protection areas and 100-year flood plain areas. It illustrated that the impacts have been minimized and that the project will be accomplished in a manner that is consistent with the Performance Standards of the Wetlands Regulations (310 CMR 10.00). The DEIR addressed the significance of the wetland resources on site by avoiding these areas. All resource area boundaries, riverfront areas, applicable buffer zones, and 100-year flood elevations were delineated on a plan. Bordering Vegetated Wetlands that have been delineated in the field were mapped and located on the plans. The DEIR has identified that the project may impact approximately 1.5 acres of Land Subject to Coastal Storm Flowage (LSCSF) by the placement of 10,000 cubic yards of clean fill and 2,500 sf of Riverfront Area. The DEIR identified that approximately 1.71 acres of former filled tidelands would be impacted by the project. It identified the work within this tideland area as well as the structures

proposed for licensing. No wetlands replication is necessary as part of the project. No fencing is proposed below the top of the Coastal Bank. The proponent's maintenance staff regularly patrols the area and properly disposes of any materials that lodge above the high water line.

The DEIR analyzed the alternative of pretreating stormwater runoff from the roofs and using this as cooling water to supplement potable water. It included a description of the existing site's drainage system design in the construction area and identified the proposed changes. The DEIR presented drainage calculations for the rates for stormwater runoff for the 2, 10, 25, and 100-year storm events. It addressed the performance standards of DEP's Stormwater Management Policy. The DEIR demonstrated that the project is consistent with this policy. It discussed the consistency of the project with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit from the U.S. Environmental Protection Agency for stormwater discharges from construction sites. The DEIR included discussion of the best management practices employed to meet the NPDES requirements, and included a draft Pollution Prevention Plan in Appendix G. A maintenance program for the drainage system was provided in Appendix F.

The DEIR identified the existing noise levels at the site. It estimated projected noise levels at the site during construction and with the operation of the new generating station. The DEIR identified the nearest sensitive receptors. It reported that the proposed project may increase the ambient sound measured (L90) by more than 8-dBA during nighttime background times at the property line for the project and at the nearest residence at 108 Glenrose Avenue. The noise level is estimated to increase by 20-dBA at the Citgo property line during the nighttime background. However, the DEIR estimated an increase of 11-dBA at 108 Glenrose Avenue for nighttime background noise levels when the proposed power plant is added to the existing Potter II station's operation. MassDEP limits a noise source to a 10-dBA increase in the ambient sound measured at the property line for the project and the nearest residence. The proponent has indicated that it is unlikely that both plants would be operating during nighttime background hours.

The DEIR described the project's construction phasing, erosion and sedimentation controls, monitoring, and contingencies. It identified that approximately 10,000 cubic yards of fill material is required to bring the site above the 500-year flood level or 14 to 15 feet mean sea level (MSL). Truck routes to the proposed construction site were identified in the DEIR. The DEIR identified demolition and construction hours. The proponent does not anticipate any impacts during peak travel hours on local roadways. It estimated approximately ten truck trips per day for about fifty days to complete the fill operation.

The DEIR presented a summary of the results of hazardous waste studies and remediation efforts undertaken at the project site by the proponent to comply with the Massachusetts Contingency Plan, 310 CMR 40.0000. It provided a description of the handling of the wastes from the generating station. The demineralizer system resins will be periodically removed offsite for regeneration on a weekly basis.

The FEIR should resolve the remaining issues outlined below, as required by this Certificate. It should include a copy of this Certificate.

**Project Description & Regulatory Environment:**

The FEIR should include a detailed description of the project with a summary/history of the project, and it should contain existing and proposed site plans. It should include a conceptual-level landscaping plan with a description of the plans within the text. The FEIR should briefly describe each state agency action required for the project and whether the proponent has demonstrated how the project is consistent with applicable performance standards.

The FEIR should estimate the actual operating hours for the proposed power plant and the actual operating hours for the existing Potter II Station. It should identify the operating hours for the existing Potter II Station for the last five years. The FEIR should describe the times of day and the times of the year that most operations are or will be occurring. It should discuss under what circumstances both facilities would be operated simultaneously.

**Air Quality:**

The FEIR should address MassDEP's comments on air quality.

**Noise:**

The FEIR should identify the location of all noise receptors identified in Tables 5.4-2, 5.4-3a, and 5.4-3b in a figure. The noise tables should be expanded to include all mapped receptors. Because noise levels may increase by 10-11 dBA at the closest residences, the FEIR should identify additional acoustical air pollution controls to provide compliance with MassDEP's Noise Policy. The proponent should evaluate additional acoustical controls for the Potter II Station to reduce noise levels from the operation of the two generating facilities. The FEIR should respond to the comment letter from the Mayor of Weymouth regarding the testing of noise levels twice per year after the proposed plant is operating to confirm the noise level projections.

**Waterways:**

Since MassDEP has determined that this project is a Nonwater-Dependent Infrastructure Facility (NDIF), the FEIR should address how this project will meet the following standards:

- the protection of maritime commerce, industry, recreation and associated public access;
- the reduction of flood and erosion-related hazards on lands subject to the 100-year storm event or sea level rise, especially those in damage-prone or natural buffer areas; and
- the protection and enhancement of public views and visual quality in the natural and built

environment of the shoreline.

The FEIR should provide the information on how the project complies with the Waterways Regulations. It should identify the mitigation measures proposed in the mitigation section of the FEIR. The FEIR should address the need to provide for public access along the waterfront as part of its Chapter 91 Licensing in spite of the proponent's desire for security and public safety.

### **Summary of Mitigation:**

The FEIR should include a separate chapter on mitigation measures. This chapter on mitigation should include a proposed Section 61 Findings for all state permits. The proposed Section 61 Findings should contain a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation and the identification of the parties responsible for implementing the mitigation. A schedule for the implementation of mitigation should also be included.

In the DEIR, the proponent has committed to the following mitigation measures:

- A weatherproof, baseplate-mounted enclosure will house the gas turbine and ventilation air systems. The gas turbine air inlet filter will be fitted with an inlet silencer and an evaporative cooler unit. It will exhaust into an SCR and Carbon Monoxide (CO) catalyst system with an inlet silencer. The inlet silencer will be increased in length. The SCR shell steel will be doubled. The exhaust stack will include a stack silencer. Natural gas compressors will be located within a building to reduce sound levels. A weatherproof, baseplate-mounted enclosure will house the AC generator. Sound barrier walls will be installed along the south side of the project site. The gas turbine air inlets will be reoriented by 180 degrees to face north away from the residential area to the south. The proponent estimates the cost for the above noise mitigation at approximately \$1 million.
- The project emissions will be controlled to BACT/LAER levels. The proponent proposes to use water injection and SCR to minimize NOx emissions. Combustion controls and an Oxidation Catalyst will be used to minimize CO and VOC emissions. SO2, PM10, and PM2.5 emissions will be controlled via use of the cleanest fossil fuels.
- The proponent will continue its shade tree planting program.
- The proponent will install a 400,000 gallon demineralized water tank to limit withdrawal from the Town water system during high demand periods.
- The project will be designed to meet MassDEP Stormwater Management Guidelines and to maximize on-site recharge.
- The construction contractor will comply with Clean Air Construction Initiative.
- Aqueous ammonia will be stored in a fully diked tank with safety controls.

The FEIR should describe the proponent's efforts to work with the Town of Braintree (which owns the Allen Station site) to establish a public use facility at the nearby Allen Station site, a former generating facility on the Monatiquot River just north of Quincy Avenue in East

Braintree. It should discuss how this area could or would be integrated into Watson Park. The FEIR should describe the proponent's efforts to work with the Town of Braintree and the community regarding the types of public facilities to be provided at this location.

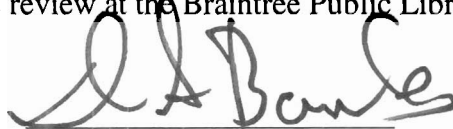
**Response to Comments:**

The FEIR should respond to the comments received to the extent that the comments are within the subject matter of this scope. Each comment letter should be reprinted in the FEIR. The Response to Comments section should provide clear answers to the questions raised.

**Circulation:**

The FEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should also be sent to the list of "comments received" below and to Braintree officials. It should be sent to the Mayors of Quincy and Weymouth. A copy of the EIR should be made available for public review at the Braintree Public Library.

April 27, 2007  
DATE



Ian A. Bowles

**Comments received:**

MA Energy Facilities Siting Board, 3/14/07  
Braintree Board of Selectmen, 4/9/07  
MCZM, 4/10/07  
United Brotherhood of Carpenters and Joiners of America, 4/12/07  
Senator Michael W. Morrissey, 4/12/07  
Quirk Auto Dealerships, 4/12/07  
Joseph G. Finn – Quincy Councillor at Large, 4/12/07  
Jeff Thayer, 4/19/07  
Michael Smart – Weymouth Town Council President, 4/19/07  
Fore River Watershed Association (FRWA),  
Weymouth Department of Planning & Community Development, 4/20/07  
Jeffrey Thayer, 4/20/07  
MassDEP/SERO, 4/20/07  
MassDEP/SERO, 4/23/07  
MassDEP/SERO, 4/23/07

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