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January 23, 2009

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
THIRD NOTICE OF PROJECT CHANGE

PROJECT NAME : Bourne Integrated Solid Waste Management Facility  
PROJECT MUNICIPALITY : Bourne  
PROJECT WATERSHED : Cape Cod  
EOEA NUMBER : 11333  
PROJECT PROPONENT : Town of Bourne  
DATE NOTICED IN MONITOR : December 24, 2008

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c.30, ss.61-62I) and Section 11.17 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) submitted on this project and hereby determine that it **does not require** the preparation of an Environmental Impact Report (EIR).

Third Notice of Project Change (NPC-3) Description

As described in this third Notice of Project Change (NPC-3), the Town of Bourne, the Proponent, proposes to construct and operate a landfill gas (LFG) to electricity generating facility located at its Bourne integrated solid waste management facility (Bourne ISWMF), located off MacArthur Boulevard (Route 28) in Bourne. The Proponent is proposing to phase the construction of five LFG fired reciprocating engine/electric generator sets with additional heat recovery equipment to recover and convert LFG from the Bourne ISWMF to electricity. The proposed energy facility has been designed to generate up to 4.3 mega watts (MW) of electricity. The Bourne ISWMF's LFG is currently being recovered and flared with no energy recovered. The proposed Generating Facility will provide redundant LFG control and reduce the potential for odor impact episodes during equipment maintenance or during equipment malfunction. The existing LFG flare will remain in service and will serve as a backup to the LFG Fueled Generating Facility.

Project History

Proposed in 1997, the Bourne ISWMF project involved the development of a regional integrated waste management facility within the existing 78-acre Bourne Landfill located off MacArthur's Boulevard (Route 28) in Bourne. The project was designed to meet a regional need for the processing and disposal of construction and demolition (C&D) material, and Difficult-To-Manage (DTM) wastes on Cape Cod. The project included the capping and/or mining of previously landfilled areas, as well as the development of a number of new lined landfill phases (Phases 4, 5, and 6) to be utilized as a regional non-municipal solid waste disposal facility having an average disposal rate of 300 – 500 tons per day (tpd). At full build-out, the Bourne ISWMF would manage up to 825 tpd of waste materials. Approximately 400 tpd would be disposed on site, 250 tpd of construction and demolition (C&D) waste would be processed; 100 tpd to be recycled; 50 tpd to be composted; and 25 tpd would consist of diverted waste. At these rates, the landfill facility was estimated to have a life of 14 to 25 years.

Notice of Project Change

In April 2003, the Proponent submitted a Notice of Project Change (NPC-1) to the MEPA Office to expand the list of acceptable materials that may be landfilled within the Town of Bourne's ISWMF to include Municipal Solid Waste (MSW) and Municipal Combustor Ash (MCA) to the list of materials accepted at the facility, to increase the quantity of MCA it currently receives and to co-mingle MCA with MSW for landfilling within the Bourne Facility. The Proponent committed to cease accepting unprocessed C&D material by January 1, 2004 in accordance with the Bourne ISWMF's Authorization to Operate (ATO) permit. The Bourne ISWMF's ability to broaden the acceptable waste stream to MSW and MCA enabled it to provide a local option for MSW and MCA management for the Town of Bourne and other Cape Cod communities. The project change did not result in an increase in the total 825 tpd of waste permitted by MassDEP to be accepted at the Bourne ISWMF for disposal, reuse, composting and recycling. The Secretary's August 7, 2003 Certificate on the NPC-1 determined that the potential impacts associated with the proposed project change did not warrant the preparation of an EIR.

Second Notice of Project Change (NPC-2)

On April 2, 2007, the MEPA Office received a request for determination from the MassDEP's Central Office as to whether the Bourne ISWMF's acceptance of a temporary increase of 500 additional tons per day (tpd) of MSW, diverted from the SEMASS's Rochester, MA waste-to-energy facility which was damaged by fire on March 31, 2007, would qualify as an Emergency Action pursuant to the MEPA regulations at 310 CMR 11.13. The MEPA Office determined that the proposed Emergency Action Plan could commence, and allowed MassDEP to grant the Proponent Reserve Capacity Allocations, in the absence of due compliance with MEPA because it was essential to avoid or eliminate an imminent threat to environmental resources and quality, as well as public safety.

Mass DEP issued the Proponent an Emergency Waste Acceptance Allocation Modification Permit on April 4, 2007 to temporarily increase the Bourne ISWMF's average daily maximum rate of 825 tpd (700 tpd landfill disposal, 125 tpd recycling/composting) to 1,325 tpd (1,200 tpd landfill disposal, 125 tpd recycling/composting) for a three month period with the possibility of future extensions if warranted. MassDEP's Emergency Waste Acceptance Allocation Modification Permit contained provisions for extending the three month permit period to accommodate the need, if any, to accept additional diversions of MSW to the Bourne ISWMF during the completion of SEAMASS' repair and rebuilding process. The Proponent subsequently provided additional information to the MEPA Office indicating that repairs to the fire-related damage to the three SEAMASS boilers were completed and the emergency conditions at SEAMASS were resolved.

### Permits and Jurisdiction

The currently proposed project change requires the preparation of a Notice of Project Change pursuant to Sections 11.10, 11.03 (7)(b)(1) and 11.03 (8)(b)(1) of the MEPA Regulations because it constitutes a material change in the project, involves the construction of a new electric generating facility with a capacity of 25 or more mega watts (MW) and the development of a new stationary source with the potential to emit more than 100 tons per year (tpy) of carbon monoxide. The project will require a number of permits and authorizations from MassDEP including a Major Modification to an Existing Landfill (BWP SW11), Authorization to Construct in an Existing Landfill (BWP SW 08) and a Major Comprehensive Plan Approval pursuant to 310 CMR 7.02(a)(3). The Proponent's application to MassDEP must include construction details of the proposed Project and appropriate revisions to the facility operations and maintenance plan. The project will be subject to an Operating Permit pursuant to 310 CMR 7.00 Appendix-C. The project construction activities may disturb one or more acres of land and therefore, may require a National Pollution Discharge Elimination System NPDES Stormwater Permit for Construction Activities from the U.S. Environmental Protection Agency (EPA). The Proponent is not seeking financial assistance from a state agency for the proposed project. MEPA jurisdiction therefore is limited to those aspects of the project within the subject matter of any required or potentially required state permits that have the potential to cause Damage to the Environment as defined in the MEPA regulations including solid waste and air quality.

### Air Quality


As described in the NPC-3 submittal, the project is subject to a Major Comprehensive Plan Approval (MCPA), currently under review by MassDEP, due to the proposed project carbon monoxide potential emissions of approximately 180 tons per year. Potential emissions are calculated pursuant to 310 CMR 7.02(5)(b) which does not allow for consideration of the substantial emission reductions associated with less use of the existing LFG flare.

The project proposes Best Available Control Technology (BACT) for nitrogen oxide emissions. As described in the NPC submittal, the project's proposed emission limits are consistent with MassDEP's Policy Relating to the Permitting of Landfill Gas-to-Energy Projects (COM-96.001).

The NPC-3 identifies the November 23, 1994 "Memorandum of Understanding (MOU) between the EPA, the Massachusetts Division of Energy Resources (DOER) and MassDEP that acknowledges the agencies' shared commitment to promote LFG to energy recovery at solid waste landfills. The MassDEP actively encourages the development of environmentally sound LFG to energy projects. According to MassDEP, Massachusetts is in the top 10% of all States in the nation with respect to the total amount of LFG to energy produced. The generation of electricity from combustion of LFG qualifies as a form of renewable energy production in Massachusetts, and results in offsets from combustion of methane gas (and other fossil fuels) from traditional sources. Methane contained in LFG is a potent greenhouse gas and energy recovery rather than flaring is a cost effective way to meet energy and environmental goals. The combustion of methane into carbon dioxide and water greatly reduces the potential climate-changing emissions from landfills. According to MassDEP, this project furthers the Commonwealth's renewable energy, air quality, and climate change goals. The comment letter from MassDEP also notes that this project is similar to other LFG combustion projects such as the Greater New Bedford LFG Utilization Project (EEA #13176, January 2004), successfully operating in compliance with the Department's Air Pollution Control Regulations. I anticipate that MassDEP's review will include conditions and requirements to develop mitigation for emissions of pollutants from the facility (particularly oxides of nitrogen), and implementation of mitigation measures to minimize construction period odors and dust.

After reviewing the NPC-3 submittal and comments received, I have concluded that no further MEPA review is required. The review of the ENF has served adequately to disclose potential impacts from the project, and to demonstrate that preparation of an EIR is not warranted. I consider the project to be a form of air quality mitigation in fulfillment of a commitment made during a previous MEPA review. I also find that the project advances the Commonwealth's renewable energy goals. The Proponent can resolve any remaining issues during the MassDEP permitting process.

January 23, 2009  
Date



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Ian A. Bowles, Secretary

Comments received: (continued on next page))

Comments received:

01/06/09      Division of Marine Fisheries (DMF)  
01/13/09      Department of Environmental Protection (MassDEP) – SERO  
01/14/09      Cape Cod Commission (CCC)

EEA #11333 NPC-3  
IAB/NCZ/ncz