



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

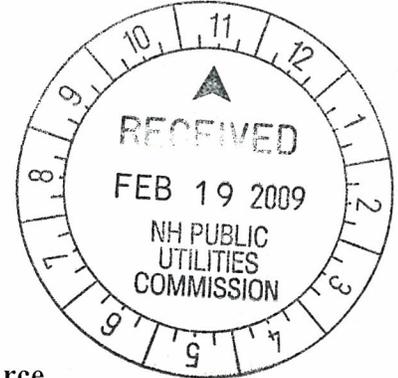
DE09-008



Thomas S. Burack, Commissioner

February 18, 2009

Debra A. Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301-2429



**Re: Conditional Certification as a Class III Renewable Energy Source
Indeck Energy-Alexandria, LLC
Alexandria, NH**

Dear Ms. Howland:

The New Hampshire Department of Environmental Services (DES) received an application from Indeck Energy-Alexandria, LLC for their wood-fired power plant located in Alexandria, NH to be certified as a Class III renewable energy source. DES has reviewed the application and recommends that the Public Utilities Commission (PUC) grant conditional approval to Indeck Energy-Alexandria as a Class III renewable energy source eligible to generate renewable energy certificates. A summary of the facility description, DES's review of particulate and NOx emission rates and monitoring requirements, and recommended conditions of the approval are presented below.

Facility Description

Facility Name: Indeck Energy-Alexandria, LLC
Facility Location: 151 Smith River Road
Alexandria, NH 03222

Gross Nameplate Capacity: 16.5 MW
Began operation: Expected 1st Quarter 2009
Primary Fuel: Whole-tree wood chips, sawdust, and clean processed wood fuels

Particulate Emissions

New Hampshire Code of Administrative Rules Puc 2502.15, "*Eligible biomass technologies*", requires that the facility meet an average particulate emission rate limit of 0.02 lb/MMBtu.

Emission Rate

A particulate emission test has not yet been performed for Indeck Energy-Alexandria. The emission test will be performed for total suspended particulate (TSP) using USEPA Method 5. The emission test will be observed and the results will be approved or denied by DES at a later date. The results of the test will indicate the actual TSP emission rate in lb/MMBtu and whether or not it meets the particulate Renewable Portfolio Standard (RPS) standard of 0.02 lb/MMBtu pursuant to RSA 362-F:2 VIII(a). DES anticipates that Indeck Energy-Alexandria will be able to meet the RPS standard.

Emissions Confirmation

Puc 2505.05(c), *Certification of Biomass Facilities*, requires facilities to conduct stack tests to verify compliance with the particulate RPS. Indeck Energy-Alexandria will need to perform future periodic particulate emission tests in accordance with Env-A 800, *Testing and Monitoring Procedures* on the schedule required by Puc 2505.05(c).

NOx Emissions

New Hampshire Code of Administrative Rules Puc 2502.15 requires that the facility meet a quarterly average NOx emission rate limit of 0.075 lb/MMBtu.

Emission Rate

Indeck Energy-Alexandria has not historically had NOx emission controls. However, as described below, Indeck Energy-Alexandria intends to install NOx emission control equipment and techniques to lower its NOx emissions.

DES issued Temporary Permit TP-B-0532 on February 4, 2008. DES anticipates that, if Indeck Energy-Alexandria proceeds with the modifications, that NOx emissions from the facility could meet the NOx RPS standard of 0.075 lb/MMBtu or less.

Emissions Confirmation

Indeck Energy-Alexandria will measure actual NOx emissions using a continuous emissions monitor (CEM). The CEM is required to be operated in accordance with Env-A 808, *Continuous Emissions Monitoring*, as specified in Condition VI, Table 5, Item #19 of Indeck Energy-Alexandria's Temporary Permit TP-B-0532. DES review of Indeck Energy-Alexandria's operational and testing data, including DES observation and review of Relative Accuracy Test Audits (RATA), will indicate if Indeck Energy-Alexandria operates the NOx CEM in accordance with all applicable requirements, and the CEM data is suitable for determining compliance with NOx emission limitations.

Conclusion and Recommended Conditions of Approval

DES believes that, with the modifications proposed by Indeck Energy-Alexandria, it will meet the requirements to be certified Class III - Existing Biomass/Methane renewable energy source. DES recommends that, with the following conditions, the PUC certify Indeck Energy-Alexandria as Class III renewable energy source eligible to generate renewable energy certificates:

- 1) Indeck Energy-Alexandria shall lower its NOx emissions to meet the 0.075 lb/MMBtu RPS. Indeck Energy-Alexandria has proposed to accomplish this by installing and operating the NOx emission controls specified in Temporary Permit TP-B-0532.
- 2) Indeck Energy-Alexandria shall perform emission tests for TSP in accordance with the procedures specified in Env-A 800 and schedule required by Puc 2505.05(c).

If you have any questions regarding DES's evaluation of the application or our conclusions, please contact me at joseph.fontaine@des.nh.gov or (603) 271-6794.

Sincerely



Joseph T. Fontaine
Trading Programs Manager
Air Resources Division