



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

December 21, 2007

Mr. John LaRiviere  
General Manager  
Wheelabrator Concord Company, L.P.  
11 Whitney Road  
Penacook, NH 03303

**CERTIFIED MAIL (7006 0810 0003 2418 5669)  
RETURN RECEIPT REQUESTED**

**NOTICE OF PAST VIOLATION  
(Sta.S)**

Dear Mr. LaRiviere:

On June 7, 2007, the New Hampshire Department of Environmental Services, Air Resources Division ("DES") received a permit deviation report from Wheelabrator Concord Company, L.P. ("Wheelabrator") for a malfunction of the powder activated carbon injection system on Boiler #1. Wheelabrator operates a resource recovery facility in Penacook, New Hampshire. The resource recovery facility burns municipal solid waste ("MSW") in two 288 tons per day combustion units that generate steam. The MSW combustors are two identical mass-fired waterwall boilers that each has a maximum heat input rate of 107.8 MMBTU/hour. DES issued Title V Operating Permit TV-OP-032 ("the Title V Permit") to Wheelabrator on September 29, 2000 for the operation of the MSW combustors. Wheelabrator maintains the powder activated carbon injection system to comply with mercury emission limits set forth in Env-A 3300, *Municipal Waste Combustion* and Condition VIII B.4., Table 5c, Item 1 of the Title V Permit.

In the permit deviation report received on June 7, 2007, Wheelabrator stated that the carbon feed system on Boiler #1 was interrupted for approximately 2.5 hours on May 21, 2007. Wheelabrator reported that the carbon feed system stopped because of a malfunction of the mechanical flow sensor switch. The local alarm and control room alarm did not sound at the time of the malfunction to alert the operator due to a blown fuse in the alarm panel. The control room operator took action when the deviation was discovered and returned the system to service. The operator did not discover the problem earlier because he was only checking the 8-hour carbon feed rate block averages and not the hourly averages.

The purpose of this letter is to notify you of the violations discovered during DES's review of the permit deviation information. The specific violations are as follows:

1. Env-A 3303.01, *Emission Limits for Large MWC Units*, and Condition VIII. B.4., Table 5c, Item 1 of the Title V Permit, require Wheelabrator to comply with a mercury emission limit of 0.028 mg/dscm or 85% control efficiency. Based on the most recent stack test performed on March 6-9, 2007, the uncontrolled emission concentration is 0.09 mg/dscm at 7% O<sub>2</sub> (or an emission rate of 0.009 lb/hour).

DES Web site: [www.des.nh.gov](http://www.des.nh.gov)

**P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095**

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Because the carbon injection is required to meet the mercury emission limitation and the powder activated carbon injection system was inoperable for 2.5 hours, Wheelabrator exceeded the mercury emission limit on May 21, 2007. DES also has determined that, although the emission limit set forth in the Title V Permit was exceeded, the ambient air limit ("AAL") established for mercury and set forth in Env-A 1450, *Table Containing the List Naming All Regulated Toxic Air Pollutants*, was not exceeded.

2. Condition VIII. C.2., Table 6b, Item 11 of the Title V Permit requires Wheelabrator to meet a minimum carbon feed rate of 2 lb/hour over an 8-hour block average. This carbon feed rate was determined during the March 13-16, 2001 performance test and represents the optimized carbon feed rate of the powder activated carbon injection system for which the mercury emissions are optimally minimized below the applicable limit. Wheelabrator did not meet this minimum carbon feed rate requirement of 2 lb/hour for an 8-hour block average on May 21, 2007.
3. Env-A 911.04(d)(13) and (14) and Condition VIII. H. 2., Table 9b, Item 10 and Condition XXVIII of the Title V Permit require Wheelabrator to report the type and quantity of excess emissions emitted to the atmosphere due to the permit deviation and to explain the calculation or estimation used to quantify excess emissions. In the permit deviation report, Wheelabrator did not include the type and quantity of excess emissions and the calculation methodology used to quantify the emissions during the permit deviation.

To prevent such incidents in the future, Wheelabrator should implement the following preventive measures as listed in the permit deviation report:

1. Modify the standard operating procedure to require the control room operators to check both the 1-hour and 8-hour carbon feed averages as backup to the alarm system and carbon calibrations;
2. Configure the continuous emission monitoring computer to show an hourly low feed rate warning alarm; and
3. Direct field operators to make more frequent local inspection rounds of the feeders to visually confirm proper operation of the carbon system.

DES believes that no further action in response to the listed violations is required at this time. In the event that additional violations are identified, DES may take action, including issuing an administrative order, seeking administrative fines, and/or referring this matter to the New Hampshire Department of Justice for civil penalties.

If you believe that DES has cited these violations in error, or have questions regarding these matters, please contact Elizabeth Nixon at (603) 271-0883, Air Resources Division, Compliance Bureau. A current copy of the Air Resources Division rules can be obtained from the DES website at <http://www.des.nh.gov/rules/air.htm> or by contacting the Public Information Center at (603) 271-2975.

Sincerely,



Pamela G. Monroe  
Compliance Bureau Administrator  
Air Resources Division

PGM/teo

cc: R. Kurowski, EPA Region 1  
G. Hamel, DES Legal Unit Administrator  
T. Aspell, City Manager, Concord  
AFS #3301300102