



State of New Jersey

JON S. CORZINE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
BUREAU OF LANDFILL & HAZARDOUS WASTE PERMITTING
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MARK N. MAURIELLO
Acting Commissioner

Daniel Burke, Township Engineer
Township of Jackson
Jackson Township Administration Building
95 West Veterans Highway
Jackson, New Jersey 08527

APR 01 2009

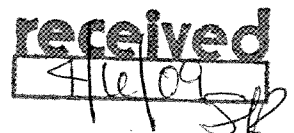
RE: Quarterly Gas Monitoring Report
Jackson Township Landfill
Ocean County, New Jersey
Program Interest No. 132541

Dear Mr. Burke:

This in reference to a letter dated March 10, 2009 received from Mr. John Vanderslice, P.G., of French and Parrello Associates, accompanied by a quarterly landfill gas survey for the Jackson Township (aka Legler) Landfill.

The Department has reviewed the above-referenced landfill gas test results and has determined that the landfill gas testing has been conducted in accordance with the requirements of N.J.A.C. 7-26-2A.8(h) and Condition No. 2 of the closure plan approval for the Jackson Township Landfill. Therefore, the submission of gas sampling results from the February 11, 2009 sampling episode is hereby accepted for the record.

As stated in Mr. Vanderslice's letter, a comparison of the most recent monitoring results with the historical results indicates an overall decreasing trend of methane gas concentrations relative to the lower explosive limit (LEL). While this may be true with regard to the entire site, the Department notes that gas concentrations at certain locations exceed the LEL by as much as two orders of magnitude. Moreover, it appears that the recent construction of the active landfill gas collection system consisting of solar-powered flares (F-1 and F-2) is not abating methane gas concentrations along the southwestern perimeter of the landfill in the vicinity of Flare F-1. In fact, according to Table 3 appended with the quarterly results, gas concentrations at certain locations have doubled or more since the last quarterly survey performed in December 2008 (i.e. Wells #8, #10 #12, #13, #15 and #17) prior to the activation of Flare F-1. Of particular concern is the fact that certain aforementioned wells are located approximately 300 feet from an occupied modular home.



Remedial action levels for mitigation of methane gas are typically 25 percent of the LEL at the landfill property line. As such, recognizing that the landfill has an approved final cover consisting of soil with an ineffective gas venting system, the Department requires that an interceptor trench, backfilled with gravel, be constructed along southwestern perimeter in order to mitigate potential landfill gas migration. The trench shall be constructed immediately. Please submit construction plans and a schedule for the implementation of a trench system as soon as possible. Please be aware that should the trench method prove ineffective for the migration of methane gas, an upgraded gas venting system may be necessary depending on prevailing landfill gas conditions.

In closing, please note that the Program is requiring the following changes in landfill gas monitoring for sanitary landfills:

1. The Department has determined that landfill gas migration monitoring should occur in the afternoon of days when atmospheric barometric pressure is falling and not rising. Significant evidence exists that rising barometric pressure, and daily higher pressure in the morning, readily suppress landfill gas in the soil resulting in reduced or non-detect test results whereas gas would actually be present and migrating laterally from the landfill during periods when barometric pressure is falling. Barometric pressure is typically lower in the afternoon compared to morning pressure.

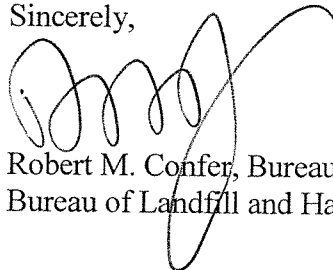
Report the barometric pressure for the period twelve hours prior to testing in two-hour intervals in order to report and verify that the barometric pressure was falling for at least 12 hours prior to testing. Also report one reading 24 hours before the monitoring event. Hourly barometric pressure data for monitoring atmospheric pressure to determine favorable times for gas monitoring and reporting to the Department is available from the Rutgers Weather and Climate Network at <http://climate.rutgers.edu/njwxnet/dataviewer-netnopt.php> on a regional basis. Pressure data from that site or other sources should be selected for climate reporting stations closest to the landfill test site if direct on-site pressure readings are not available.

2. Anytime gas is detected at a monitoring location, additional monitoring should be conducted at 25-foot intervals both away from and along the landfill perimeter (in both directions). Monitoring shall continue at these 25-foot intervals until values are 0% of the LEL.
3. Monitoring events should not be rescheduled due to frozen and related winter weather conditions, since these conditions can promote lateral gas migration."

The foregoing changes shall be effective immediately for all quarterly gas surveys for the Jackson Township Landfill.

Thank you for your consideration in this matter. Should you have any questions regarding this letter, please contact Mark Searfoss at 609-984-6058 or by e-mail at mark.searfoss@dep.state.nj.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert M. Confer', with a large, sweeping flourish extending to the right.

Robert M. Confer, Bureau Chief
Bureau of Landfill and Hazardous Waste Permitting

LG09-6098

c: Rai Belonzi, BSWCE
Brian Petitt, BSWCE
Michael Gerchman, BLHWP
John Vanderslice, P.G., French & Parrello

NJEMS Document: Feb 2009 gas test results