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April 2, 2002

TO: Richard P. Sweeney
NYSDEC Region 9
270 Michigan Ave.
Buffalo, NY 14203-2999

RE: Application ID: 9-0636-00006/00017, Article 19 Air Title V Facility
Operating Permit (Chautauqua County Landfill)

Please extend your forbearance to consider this comment on the above application, notwithstanding the close of the comment period on March 25, 2002. This office was closed for the last two weeks of March and I was out of state on a scheduled vacation.

I make this comment as a private citizen and attorney with an interest in solid waste management in the Region, and as a person who personally relies on the applicant's facility. All of Cattaraugus County's publicly managed waste destined for disposal is shipped to this facility. As a resident of Cattaraugus County, I have an interest in the safe disposal of waste originating in my county. I also use recreational facilities in Chautauqua County in the vicinity of the applicant's facility. I therefore have an interest in control of emissions from the facility.

The regulated air pollutant of concern at this facility is non-methane organic compounds (NMOC), a fraction of landfill gas containing at least 30 hazardous air pollutants presenting documented health hazards. The application relies on a site specific Tier 2 calculation of NMOC emissions that estimates such emissions will peak at 44.6 Mg/yr. in the year 2021, just under the 50 Mg/yr. threshold requiring enhanced controls to be installed. Accepting this calculation, the draft permit imposes no additional controls beyond what is currently installed.

The application also estimates that the current landfill gas collection and control system collects approximately 37% of landfill gas. This is about half of the collection rate that would be expected were enhanced controls to apply to this facility.¹ Although the applicant has stated it "will be actively

¹AP-42, page 2.4-6 ("Reported collection efficiencies typically range from 60 to 85 percent, with an average of 75 percent most commonly assumed."). See also EPA, *Municipal Solid Waste Landfills*,

managing the wellfield during the next several months [to] increase the total amount of gas collected,”² the Department should evaluate compliance based on the present rather than the future.

The basis for the Tier 2 calculation is a dramatically lower value for NMOC concentration in the facility’s collected landfill gas than the default value under the applicable regulations. While the default value is 4,000 ppm, the application asserts testing on site determined NMOC concentration is 286 ppm. The gap between these two values should raise considerable skepticism, for a number of reasons.

First, if the NMOC concentration was only slightly higher, enhanced controls would be required, and this requirement and the applicability of substantial monitoring, reporting and recordkeeping requirements under Part 208 would have to be included in the Title V permit.

Secondly, the 286 ppm concentration was the result of two samples from the existing gas collection system, taken at a time when the system was experiencing “excessive wellhead vacuums and air intrusion,” according to the Department.³ This was subsequently recognized as a malfunction of the system, resulting in the replacement of an oversized blower, found to be the cause of the malfunction, after February 6, 2001. However, the samples were taken before the malfunction was repaired, on April 10, 1998.⁴

Third, when the regulatory default values are adopted for this facility’s estimation of HAP/VOC, using the Landgem emission estimation model, there is no difference in calculation results compared to using the 286 ppm value. However, the difference is dramatic when calculating NMOC. I have attached a run of the model using the regulatory default value for NMOC, which shows NMOC would be estimated to exceed the threshold requiring enhanced controls in 1983; by 2001 NMOC emissions would be 450 Mg/yr., well in excess to the 50 Mg/yr. requiring enhanced controls. The fact that the applicant’s calculated site specific estimation of NMOC emissions is just under the threshold in the peak year of the landfill’s expected production of landfill gas, when viewed against this background, is suspicious.

Fourth, the sampling methodology used to obtain the 286 ppm value departs from the methodology

Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines, Final Draft, (EPA-456/R-96-005) (Oct., 1996, rev. Nov., 1998), page 2.4-7 (guidance recommending 75% collection rate).

²Application, “Chautauqua County Landfill Emission Calculations for Title V Permit Application,” page 2.

³Identification Information, Facility DEC ID: 9063600006/Permit ID: 9-0636-00006/00017, page 3 (Feb. 15, 2002).

⁴Id., page 1.

mandated by the applicable rule, Part 208.5(a)(3), which requires “at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years,” up to 50 probes. The applicant instead took “two samples from the gas collection system main header upstream from the blower.”⁵

Fifth, the 286 ppm value, about 7% of the default value, should be compared to the experience elsewhere with landfills of the type and age of this facility. Methane and carbon dioxide, the primary constituents of landfill gas, are odorless, but NMOC is odorous. Like other older landfills with unlined portions and later-installed gas collection systems, this facility has a history of odor complaints.⁶ A low NMOC concentration value is at odds with this experience.

Sixth, the applicant asserts that the same 7% of default values can be applied to estimate the landfill’s emissions of HAP and VOC, emitted from the flare to which collected landfill gas is directed at rates of 9.79 tons per year and 16.52 tons per year, respectively.⁷ However, no basis in sampling or other on site data is provided for this assertion. Moreover, if as the applicant concedes, 63% of landfill gas is emitted directly to the environment without any control, HAP and VOC emissions are much higher.

Finally, this landfill recently obtained a permit for a major expansion. If the Tier 2 emission rate estimation is flawed and substantially underestimates emissions, new source review was avoided. This review would have determined with much more accuracy the degree of contribution of the facility’s emissions to degradation of area air quality. Avoidance of new source review and failure to obtain a preconstruction permit, which may have been required before construction on the modification began, would be a substantial financial savings for the applicant, but would also be a violation of applicable rules.

For all these reasons, the permit cannot assure compliance without revisiting the calculation of regulated hazardous emissions. The permit should require more accurate testing of the actual concentration of NMOC than was done on April 10, 1998. The permit should state that if reliable testing shows NMOC concentrations will or have exceeded the threshold requiring enhanced controls, a compliance schedule for meeting applicable rules must be adopted immediately.

cc: Steven Riva, Air Permitting Branch, EPA Region 2
Lisa Maybee, Director of Environmental Protection, Seneca Nation of Indians

⁵Identification Information, Facility DEC ID: 9063600006/Permit ID: 9-0636-00006/00017, page 2.

⁶Application, Section III, page 3 of 5.

⁷Application, “Chautauqua County Landfill Emission Calculations for Title V Permit Application,” page 2.