UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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NORTHEAST DISTRICT
DEP-JACKSONVILLE

AUG 2 6 2008

Christopher L. Kirts, P.E.
District Air Program Administrator
Florida Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Dear Mr. Kirts:

This letter is in response to a July 30, 2008, e-mail in which Rita Felton-Smith of your staff requested a written determination regarding an issue that the City of Jacksonville (City) raised in conjunction with the operation of gas collection wells at the Trail Ridge Landfill in Baldwin, Florida. This landfill is subject to 40 CFR Part 60, Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills), and the e-mail from Rita Felton-Smith asked for a determination regarding whether landfill owners/operators must obtain State approval when establishing alternative temperature limits for gas collection wells under provisions in 40 CFR §60.753(c). Based upon our review of Subpart WWW and supporting information, we determined that State approval for such alternative temperature limits is required. The remainder of this letter provides details regarding the basis for this determination.

Owners and operators of landfills required to install and operate a gas collection and control system under Subpart WWW are subject to a number of operating limits promulgated under 40 CFR 60.753. Included under these provisions is a gas collection well temperature limit of 55° C (131° F) in 40 CFR §60.753(c). This provision also allows owners/operators of affected facilities to establish higher temperature limits by demonstrating that the higher limits do not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

Exceedances of the temperature limit in Subpart WWW have been detected for seven of the gas collection wells at the Trail Ridge Landfill. In a letter that the City sent to your agency in order to address these exceedances, the City asserted that 40 CFR §60.753 does not specifically require Administrator approval for higher landfill gas collection well temperature limits. In her e-mal to the U.S. Environmental Protection Agency (EPA) Region 4, Rita Felton-Smith requested a written determination regarding whether this position taken by the City is correct. Based upon our review of Subpart WWW and supporting information, we disagree with the City's position that it can unilaterally establish alternative temperature limits for gas collection wells at the Trail Ridge Landfill. The basis for this conclusion is summarized below:

1. The City contends that 40 CFR §60.753(c) does not specifically require Administrator approval for higher operating values. While the language in this provision does not explicitly say that State approval for alternative temperature limits in required, it does not say that landfill owners/operators can unilaterally establish alternative temperature limits either.

2. The language in 40 CFR §60.753(c) references a higher operating value demonstration that includes supporting data as part of the process for establishing higher temperature limits. This requirement for a demonstration that includes supporting data implies some sort of approval process in conjunction with setting an alternative temperature limit.

3. If a landfill owner/operator can unilaterally establish alternative temperature limits without obtaining approval from the State agency responsible for implementing Subpart WWW, there would be no point in having temperature limits in 40 CFR §60.753(c) to begin with.

4. Implementation guidance that EPA issued in conjunction with the promulgation of Subpart WWW clearly says that State approval for alternative operating limits is required. EPA issued a document titled Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills (EPA-455R/96-004) to assist with the implementation of Subpart WWW. Page 2-13 of this guidance document (enclosed) discusses the provisions involving alternative limits under 40 CFR §60.753(c), and this section of the guidance document clearly says these alternative limits require State approval.

For the reasons outlined above, we have concluded that the City's interpretation regarding the approval process for alternative temperature limits under 40 CFR §60.753(c) is incorrect. In order to obtain approval for an alternative temperature limit for gas collection wells under Subpart WWW, an owner/operator must submit the demonstration and supporting information described in 40 CFR §60.753(c), and after reviewing this information, the State can either approve or disapprove the proposed alternative limit.

If you have any questions about the determination provided in this letter, please contact Mr. David McNeal of the EPA Region 4 staff at (404) 562-9102.

Sincerely,

Beverly H. Banister
Director
Air, Pesticides and Toxics
Management Division

Enclosure

cc: Rita Felton-Smith
Florida Department of Environmental Protection

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

EPA-453R/96-004
February 1999

Air

Municipal Solid Waste Landfills, Volume 1:

Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills

FINAL

§ 60.759, it may be appropriate to use alternative operating and compliance provisions that are consistent with the site-specific design.

This section briefly describes the operational requirements that are used to ensure that the collection system is performing in accordance with its design and that the four design criteria listed in the previous section are met on a continuing basis. Additional details on monitoring and compliance determination provisions are provided in section 2.1.3.

To ensure that the collection system is designed to handle the maximum expected gas generation rate, § 60.755(a) provides procedures for calculating the gas generation flow rate.

Landfill gas is effectively collected from the landfill when gas collectors are operated at a sufficient gas extraction rate. To demonstrate that the gas extraction rate for an active gas collection system is sufficient, a negative pressure must be maintained at each wellhead [§ 60.753(b) and § 60.755(a)(3)] except as noted in § 60.753(b). Gas collection systems that operate at a sufficient gas extraction rate minimize the potential of off-site, migration of subsurface LFG [§ 60.752(b)(2)(ii)].

An excessive gas extraction rate may cause air infiltration into the landfill through its surface and sides. Under the rule, the nitrogen gas concentration in the collected LFG must be maintained below 20 percent (or the oxygen concentration maintained below 5 percent) and the temperature of the collected LFG must be below 55 ^{o}C (131 ^{o}F) to prevent excess air infiltration [§ 60.753(c) and § 60.755(a)(5)]. For a specific site, the owner or operator may establish a higher temperature, or a higher nitrogen or oxygen level for particular wells, with approval from the State.

An inadequate gas extraction rate may cause LFG to escape through the landfill surface. Under the rule, the gas extraction rate is considered adequate when the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, surface testing is conducted around the perimeter of the collection area, along a pattern that traverses the landfill at 30 meter intervals, and where visual observations indicate elevated concentrations of landfill gas (e.g., distressed vegetation, cracks or seeps in the cover). The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage [§ 60.753(d) and § 60.755(c)].

Collection system parameters (pressure, nitrogen concentration, oxygen concentration, temperature, surface methane concentration) must be monitored periodically to