

MEMORANDUM

Bruce

TO: Howard L. Rhodes

FROM: *SM Sheplak* Scott M. Sheplak

DATE: September 10, 2002

Re: **Final Determination and Air Construction Permit Modification**
No. 0990234-005-AC; PSD-FL-108(E)
Solid Waste Authority of Palm Beach County
North County Regional Resource Recovery Facility

Attached are the Final Determination and Final Permit Modification for the subject facility; the purpose of the modification is to reduce the frequency of surface monitoring of methane gas emissions at the Class III Landfill from quarterly to annually, under certain threshold detection conditions.

The Department received *no comments* from the public, U.S.EPA, NPS/FWS, or the applicant, in response to the public notice that was published in the Palm Beach Post on August 23, 2002. The USEPA has approved the implementation of this change in a letter to the Department dated June 7, 2002 (copy attached).

FINAL DETERMINATION

**Solid Waste Authority of Palm Beach County
North County Regional Resource Recovery Facility
DEP File No. 0990234-005-AC; PSD-FL-108(E)**

The Department distributed a public notice package on August 15, 2002, to allow the applicant to modify permit No. PSD-FL-108(D) for its Class III Landfill located at the North County Regional Resource Recovery Facility, 6501 North Jog Road, West Palm Beach, Palm Beach County. The purpose of the modification is to reduce the frequency of surface monitoring of methane gas emissions from quarterly to annually, under certain threshold detection conditions. The Public Notice of Intent to Issue was published in the Palm Beach Post on August 23, 2002.

COMMENTS/CHANGES

No comments were received by the Department from the public, U.S.EPA, NPS/FWS, or the applicant.

CONCLUSION

The final action of the Department is to issue the permit with no changes.

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Mr. Donald L. Lockhart, Exe. Director	
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Mr. Donald L. Lockhart	
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7501 North Jog Road	
City, State, ZIP+4	
West Palm Beach, Florida 33412-2414	
PS Form 3800, July 1999 See Reverse for Instructions	

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Addressed to:

Mr. Donald L. Lockhart,
Executive Director
Solid Waste Authority of Palm
Beach County
7501 North Jog Road
West Palm Beach, FL 33412-2414

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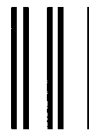
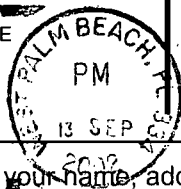
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DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
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TALLAHASSEE, FLORIDA 32399-2400

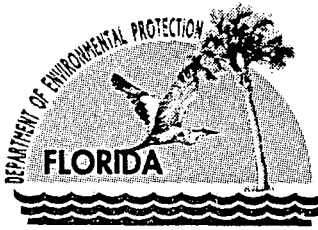
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BUREAU OF AIR REGULATION

SEP 16 2002

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Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

September 10, 2002

Certified Mail - Return Receipt Requested

Donald L. Lockhart, Executive Director
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412-2414

Re: DEP File No. 0990234-005-AC, PSD-FL-108(E)
North County Regional Resource Recovery Facility
Surface Monitoring of the Class III Landfill

The applicant, the Solid Waste Authority of Palm Beach County, applied on July 17, 2002, to the Department for an air construction permit for its Class III Landfill located at the North County Regional Resource Recovery Facility, 6501 North Jog Road, West Palm Beach, Palm Beach County. This permitting action will supersede the previous permit modification, PSD-FL-108(D), issued May 11, 1999. The purpose of the modification is to reduce the frequency of surface monitoring of methane gas emissions from quarterly to annually, under certain threshold detection conditions, as noted below. The USEPA has approved the implementation of this change in a letter to the Department dated June 7, 2002. The Department has reviewed the applicant's request. The specific conditions of permit modification PSD-FL-108(D) are hereby *replaced entirely* with the following conditions:

1. Hours of Operation. These emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]
2. Landfill Gas Collection and Control. The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, *with the following exception to the requirements of 40 CFR 60.755(c):*

The frequency of surface monitoring of methane gas emissions shall be annual for the Class III Landfill, provided that the methane concentration level remains below 250 parts per million (ppm). If the methane concentration equals or exceeds 250 ppm, then the surface monitoring shall revert back to a quarterly monitoring frequency. If no readings of 250 ppm or greater are detected in three consecutive subsequent quarterly samples, the frequency shall again become annual.

Note that although quarterly monitoring shall be required if the methane concentration equals or exceeds 250 ppm, corrective action measures, as required by Specific Condition **B.22(c)(4)**, of the facility's Title V Air Operation Permit, shall only be required when the concentration level equals or exceeds 500 ppm.

[Rule 62-204.800(7)(b), F.A.C.; 40 CFR 60 Subpart WWW; 40 CFR 60.13(i); and USEPA approval letter to the Department dated June 7, 2002.]

3. Landfill Gas Flow Rate. The owner or operator shall not allow more than 1800 scfm of landfill gas to be directed to each flare. The actual flow rate shall be determined for each flare on a monthly average basis by dividing the measured flow by the hours that each flare was operated each month. Compliance with this limitation shall be by measuring landfill gas flows to each flare and recording flows with a totalizing meter. Records of the totalizing meter values shall be recorded in an operators log

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monthly, or whenever the meter is reset for any purpose, whichever is more frequent. The owner or operator shall maintain a strip chart recorder to record the flow rate to each flare as a backup device in the event that the totalizer meter is not functioning; the strip chart recorder shall also be used in conjunction with an operators log to document the hours each month that each flare was operated. [Rule 62-4.070(3), F.A.C.; and request of the applicant.]

4. Pursuant to 40 CFR 60.18 General Control Device Requirements. The owner or operator shall comply with the following requirements for flares. [Note: The numbering of the rule has been preserved in the following condition for ease of reference.]

- (c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).
- (3) Flares shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f).
- (4) (iii) Nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.
- (d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
- (e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- (f) (1) Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$HT = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = Constant, 1.740×10^{-7} (1/ppm) (g mole/scm) (MJ/kcal) where the standard temperature for (g mole/scm) is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i , kcal/ g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (HT + 28.8) / 31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

HT = The net heating value as determined in paragraph (f)(3).

[Rule 62-204.800(7)(b), F.A.C., and 40 CFR 60.18]

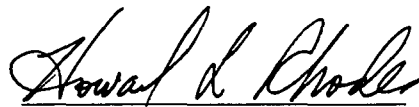
5. Reporting Requirements. The owner or operator shall annually determine and report the actual exit velocity of each flare using the methods specified in 40 CFR 60.18. The owner or operator shall annually analyze and report the sulfur content of the landfill gas directed to each flare using ASTM Method D1072-90, or later method. The actual exit velocity and sulfur content shall be reported to the Department as an attachment to the facility's annual operating report.

[Rule 62-4.070(3), F.A.C.; and requirement of previous PSD FL-108(B), dated February 20, 1996, clerked February 21, 1996.]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Howard L. Rhodes, Director
Division of Air Resource
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/11/02 to the person(s) listed:

Donald L. Lockhart*

Mary Beth Mihalik, Solid Waste Authority of Palm Beach County

Thomas Tittle, Southeast District Office

James Stormer, Palm Beach County Health Department

Jeaneanne Gettle, USEPA, Region 4

John Bunyak, National Park Service

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 9/11/02
(Clerk) (Date)

9/11/02 cc: Bruce Mitchell
Reading File