CDM

Solid Waste Authority of Palm Beach County, Florida

North County Resource Recovery Facility

Florida Department of Environmental Protection

Request for Minor Air Pre-Construction Permit and Revision to Title V Air Operation Permit 0990234-003-AV

October 2003

SWA
SOLID WASTE AUTHORITY

Application

SOLID WASTE AUTHORITY OF PALM BEACH COUNTY
NORTH COUNTY RESOURCE RECOVERY FACILITY SITE

REQUEST FOR MINOR AIR PRE-CONSTRUCTION PERMIT AND REVISION TO TITLE V AIR OPERATION PERMIT 0990234-003-AV

PERMIT APPLICATION FOR 3,500, 2,000 AND 1,000-SCFM FLARES

Submitted to:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SITING COORDINATION OFFICE
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

RECEIVED
OCT 22 2003
BUREAU OF AIR REGULATION

Prepared for:
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

Prepared by:
Camp Dresser & McKee Inc.
1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406

October 2003

10/14/03

Alex H. Makled, P.E., DEE
Florida Registered Engineer
Engineer Number 45935

Contents

Appendices

SECTION 1

Application Information

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name :
   Solid Waste Authority of Palm Beach Co.

2. Site Name :
   North County Resource Recovery Facility

3. Facility Identification Number : 0990234 [ ] Unknown

4. Facility Location :
   Solid Waste Authority of Palm Beach County
   North County Resource Recovery Facility

   Street Address or Other Locator : 7501 North Jog Rod
   City : West Palm Beach County : Palm Beach Zip Code : 33412-2414

5. Relocatable Facility?
   [ ] Yes [X] No

6. Existing Permitted Facility?
   [X] Yes [ ] No

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : John D. Booth, P.E, DEE
Title : Executive Director

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Solid Waste Authority of Palm Beach Co
Street Address : 7501 North Jog Road
City : West Palm Beach
State : FL Zip Code : 33412-2414

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (561)640-4000 Fax : (561)683-4067

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

John D Booth 10/9/03

Signature Date

* Attach letter of authorization if not currently on file.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
	Class I Landfill 3,500 scfm flare	
	Proposed 2,000 scfm flare (LRF/BPF)	
	Proposed 1,000 scfm flare (LRF/BPF)	

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

[X] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :
PSD-FL-108(E)

Operation permit to be revised :
0990234-003-AV

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

[ ] Renewal air operation permit under Fule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

[ ] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

[X] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :
PSD-FL-108(E)

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

[ ] Attached - Amount : $0.00 [X] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations :

In an effort to provide the NCRRF with sufficient capacity to handle all gas generated at build out, the following changes have been made:

1. A new 3,500 scfm flare will be installed at the Class I Landfill.

2. The actual 1,800 scfm Class I landfill flare will be decomissioned once the new one is installed.

3. Two additional flares have been proposed for future use. A 2,000 scfm flare will be added to handle th build out capacity of the landfill and the 1,000 scfm flare will be later added to accomodate any over flow from the Lime Recalcination/Biosolids Pelletization Facilities.

2. Projected or Actual Date of Commencement of Construction : 01-Jan-2004

3. Projected Date of Completion of Construction : 31-Mar-2004

Professional Engineer Certification

1. Professional Engineer Name : Alex H. Makled
Registration Number : 45935

2. Professional Engineer Mailing Address :

Organization/Firm : Camp Dresser & McKee
Street Address : 1601 Belvedere Road, Suite 211
City : West Palm Beach State : FL Zip Code : 33406

3. Professional Engineer Telephone Numbers :
Telephone : (561)689-3336 Fax : (561)689-9713

4. Professional Engineer Statement :

I, the undersigned, hereby certify, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [X] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature (seal)

10/14/03
Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :

Name : Alex H. Makled
Title : Vice President

2. Application Contact Mailing Address :

Organization/Firm : Camp Dresser & McKee
Street Address : 1601 Belvedere Road Suite 211
City : West Palm Beach
State : FL Zip Code : 33406

3. Application Contact Telephone Numbers :

Telephone : (561)689-3336 Fax : (561)689-9713

Application Comment

This is a minor pre-construction permit application for the NCRRF Class I Landfill. The Class III landfill has not been addressed in this application since the Class III landfill flare will not be upgraded within the next five years.

EPSAP forms are being submitted elecronically as part of this permit application.

SECTION 2

Facility Information

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility, Location, and Type 11

1. Facility UTM Coordinates :
   Zone : 17 East (km) : 585.80 North (km) : 2960.20

2. Facility Latitude/Longitude :
   Latitude (DD/MM/SS) : 26 46 Longitude (DD/MM/SS) : 80 8 45

3. Governmental Facility Code :	4. Facility Status Code :	5. Facility Major Group SIC Code :	6. Facility SIC(s) :
3	A	49	

7. Facility Comment :

SWA proposes to add a 3,500 scfm flare in 2004. In addition, a 2,000 scfm flare and a separate 1,000 scfm flare will be later incorporated to be able to handle build out conditions.

Facility Contact

1. Name and Title of Facility Contact :
   John D. Booth, P.E., DEE
   Executive Director

2. Facility Contact Mailing Address :
   Organization/Firm : Solid Waste Auth. of Palm Beach Co.
   Street Address : 7501 North Jog Road
   City : West Palm Beach State : FL Zip Code : 33412-2414

3. Facility Contact Telephone Numbers :
   Telephone : (561)640-4000 Fax : (561)683-4067

Facility Regulatory Classifications

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	Y
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	Y
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment : All classifications apply to the NCRRF Site as a whole.	

B. FACILITY REGULATIONS

Rule Applicability Analysis

Applicable rules are discussed in Section 2.0 of the Volume III: Application Text for Modification of PSD Air Permit No. PSD-FL-108 submitted in August 2003.

B. FACILITY REGULATIONS

List of Applicable Regulations

The Title V Core List (dated 03/01/02) attached as Appendix K.

40 CFR 60 Subpart HH- Standards of Performance for Lime Manufacturing Plants

40 CFR 60 Subpart WWW- New Source Performance Standards for MSW Landfills

40 CFR 61 Subpart E - National Emissions Standard for Hazardous Air Pollutants (NESHAP) - Mercury

40 CFR 63 Subpart AAAA National Emissions Standards for Hazardous Air Pollutants: MSW Landfills

40 CFR 64 - Compliance Assurance Monitoring Rule

Title V Core List
Effective: 03/01/02

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: *(description)*

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: *(description)*

CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.
62-210.300(7), F.A.C.: Transfer of Air Permits.
62-210.350, F.A.C.: Public Notice and Comment.

62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.
62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions.
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 08-17-00

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-16-01

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.415, F.A.C.: Trading of Emissions Within a Source.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
62-213.900(7), F.A.C.: Statement of Compliance Form.

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.
62-297.330, F.A.C.: Applicable Test Procedures.
62-297.340, F.A.C.: Frequency of Compliance Tests.
62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.
62-297.350, F.A.C.: Determination of Process Variables.
62-297.570, F.A.C.: Test Report.
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests
CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98
CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94
CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99
CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
VOC	B
CO	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 1

1. Pollutant Emitted : VOC
2. Requested Emissions Cap : (lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :
4. Facility Pollutant Comment : Not Applicable - no emissions cap requested Note: The pollutant regulated by 40 CFR Subpart Cc (EG for MSW Landfills) is non-methane organic compounds (NMOC). Since ELSA does not have a code for NMOC, VOC is reported as a surrogate.

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information Pollutant 2

1. Pollutant Emitted :	CO
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment :	

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	Appendix A
2. Facility Plot Plan :	Appendix B
3. Process Flow Diagram(s) :	Appendix C
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	Appendix D
5. Fugitive Emissions Identification :	NA
6. Supplemental Information for Construction Permit Applica	Appendix E

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt	Appendix F
8. List of Equipment/Activities Regulated under Title	NA
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions	NA
11. Identification of Additional Applicable	NA
12. Compliance Assurance Monitoring	NA
13. Risk Management Plan Verification :	NA
14. Compliance Report and Plan :	Appendix G
15. Compliance Certification (Hard-copy Requir	Appendix H

SECTION 3

Emissions Unit Information

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 1

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Class I Landfill 3,500 scfm flare		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment : Flare to be used as part of the gas collection and control system for the NCRRF Class I Landfill. Once this 3,500 scfm blower and flare are installed, the existing 1,800 scfm flare will be decomissioned.		

Emissions Unit Information Section 2

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Proposed 2,000 scfm flare (LRF/BPF)		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment : Flare designed to handle build out conditions at the NCRRF Class I Landfill and Lime Recalcination/Biosolids Pelletization facilities.		

Emissions Unit Information Section 3

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Proposed 1,000 scfm flare (LRF/BPF)		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment : Flare designed to handle build out conditions at the NCRRF Class I Landfill and Lime Recalcination/Biosolids Pelletization facilities.		

Emissions Unit Information Section 1

Class 1 Landfill 3,500 scfm flare

Emissions Unit Control Equipment 1

1. Description : This flare is a control device for destruction of NMOC in landfill gas. It will be an open candle stick, non-assisted flare.
2. Control Device or Method Code : 23

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Emissions Unit Control Equipment 1

1. Description : The flare will be an open candle-stick flare, non-assisted flare.
2. Control Device or Method Code : 23

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Emissions Unit Control Equipment 1

1. Description : This flare is a device for destruction of NMOC in landfill gas. It will be an open candlestick, non-steam assisted flare.
2. Control Device or Method Code : 23

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

Emissions Unit Details

1. Initial Startup Date :	01-Jan-2004
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : LFG Specialties	Model Number : CF1440 I12
4. Generator Nameplate Rating :	MW
5. Incinerator Information :	
Dwell Temperature :	Degrees Fahrenheit
Dwell Time :	Seconds
Incinerator Afterburner Temperature :	Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	105	mmBtu/hr	
2. Maximum Incinerator Rate :	0.00	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	3500	scfm of LFG	
4. Maximum Production Rate :			
5. Operating Capacity Comment : Blower and flare capacity is 3,500 scfm of landfill gas.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Emissions Unit Details

1. Initial Startup Date :	01-Jan-2010
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : LFG Specialties	Model Number : CF1030 I8
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	60	mmBtu/hr	
2. Maximum Incinerator Rate :	0.00	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	2000	scfm	
4. Maximum Production Rate :			
5. Operating Capacity Comment : Blower and flare capacity is 2,000 scfm of landfill gas.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Emissions Unit Details

1. Initial Startup Date :	01-Jan-2020
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : LFG Technologies	Model Number : CF825 I6
4. Generator Nameplate Rating :	MW
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :	 Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	30	mmBtu/hr	
2. Maximum Incinerator Rate :	0.00	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	1000	scfm	
4. Maximum Production Rate :			
5. Operating Capacity Comment : Blower and flare capacity is 1,000 scfm of landfill gas.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

Rule Applicability Analysis

Not Applicable.
See Section 2.B Facility Regulations

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Rule Applicability Analysis

Not Applicable.
See Section 2.B Facility Regulations

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Rule Applicability Analysis

Not Applicable.
Refer to Section 2.B for list of applicable regulations.

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

List of Applicable Regulations

40 CFR 60 Subpart WWW - Standards of Performance for MSW Landfills

40 CFR 63 Subpart AAAA National Emissions Standards for Hazardous Air Pollutants: MSW Landfills

List of Applicable Regulations

40 CFR 60 Subpart WWW - Standards of Performance for MSW Landfills

40 CFR 63 Subpart AAAA National Emissions Standards for Hazardous Air Pollutants: MSW Landfills

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

List of Applicable Regulations

40 CFR 60 Subpart WWW New Source Performance Standards for MSW Landfills

40 CFR 63 Subpart AAAA National Emissions Standards for Hazardous Air Pollutants: MSW Landfills

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Class I 3,500 scfm	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	44	feet
7. Exit Diameter :	1.2	feet
8. Exit Temperature :	999	°F
9. Actual Volumetric Flow Rate :	193661	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	51653	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates :		

Zone : 17 East (km) : 0.000 North (km) : 0.000

14. Emission Point Comment :

Appendix E shows detailed calculations of the flare air flow rate in acfm and dscfm.
Note: ELSA does not allow for Temperature inputs greater than 999. The combustion temp. is 1400 °F (App. I)

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Proposed 2,000 scfm	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	33	feet
7. Exit Diameter :	0.8	feet
8. Exit Temperature :	999	°F
9. Actual Volumetric Flow Rate :	110663	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	29516	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates :		

Zone : 0 East (km) : 0.000 North (km) : 0.000

14. Emission Point Comment :

Appendix E shows detailed calculations of the flare air flow rate in acfm and dscfm.
Item 8. The combustion temperature is 1400 °F.

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Proposed 1,000 scfm	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	28	feet
7. Exit Diameter :	0.7	feet
8. Exit Temperature :	999	°F
9. Actual Volumetric Flow Rate :	55332	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate :	14758	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates :		
Zone : 0	East (km) : 0.000	North (km) : 0.000

14. Emission Point Comment :

Appendix E shows detailed calculations of the flare air flow rate in acfm and dscfm.
Note: ELSA does not allow for Temperature inputs greater than 99. The combustion temperature is 1400 ° F.

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Flaring of landfill gas collected from landfill gas collection system	
2. Source Classification Code (SCC) : 50100410	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.21	5. Maximum Annual Rate : 1,839.60
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.01	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 573	
10. Segment Comment : See Appendix E for calculation of landfill gas energy content.	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Flaring of landfill gas	
2. Source Classification Code (SCC) : 50100410	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.12	5. Maximum Annual Rate : 1,051.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.01	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 573	
10. Segment Comment : See Appendix E for calculation of landfill gas energy content.	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Flaring of landfill gas	
2. Source Classification Code (SCC) : 50100410	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.06	5. Maximum Annual Rate : 525.60
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.01	8. Maximum Percent Ash : 0.00
9. Million Btu per SCC Unit : 573	
10. Segment Comment : See Appendix E for calculation of landfill gas energy content.	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO			NS
2 - VOC	023		EL
3 - NOX			NS
4 - PM10			NS
5 - SO2			NS

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO			NS
2 - NOX			NS
3 - PM10			NS
4 - SO2			NS
5 - VOC	023		EL

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO			NS
2 - NOX			NS
3 - PM10			NS
4 - VOC	023		EL
5 - SO2			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **CO**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 44.5700000 lb/hour 195.2700000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0.37 Units lb/MMBTU Reference : AP-42 Section 13.5
7. Emissions Method Code : 3
8. Calculations of Emissions : Emission Factor (EF)= 0.37 lb/MMBTU (AP-42-Sec.13.5) Flare heat input = 3500 scfm * 58.5 % by vol. Methane = 2049 scfm 2049 std ft3/min*980 BTU/ft3 *60 min/hr = 120.48 MMBTU/hr 120.48 MMBTU/hr * 0.37 lb/MMBTU = 44.57 lb/hr 44.57 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 195.27 ton/yr Please refer to Appendix E for detailed calculations.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

9. Pollutant Potential/Estimated Emissions Comment :

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **VOC**
2. Total Percent Efficiency of Control : 98.00 %
3. Potential Emissions : 0.5600000 lb/hour 2.4000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 595 Units ppmv Reference : AP-42 Sec.2.4
7. Emissions Method Code : 3
8. Calculations of Emissions :

Landfill gas flow rate = 3500 scfm * 1/35.31 m3/ft3 * 60 min/hr = 5947.3 m3/hr

NMOC con. in landfill gas = 595 ppmv (AP-42)
MW of NMOC (as hexane) = 86.17 g/mol
NMOC destruction by flare = 98% (2% emitted)

595 ppmv* 41.57 mol/m3 * 86.17 g/mol = 2131342 ug/m3
2131342 ug/m3 * 5947.3 m3/hr * 1 e -06 g/ug * 1/453.59 lb/g = 27.9 lb/hr uncontrolled NMOC
27.9 lb/hr * 0.02 = 0.56 lb/hr controlled NMOC
0.56 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 2.4 ton/yr controlled NMOC

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

9. Pollutant Potential/Estimated Emissions Comment :

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **NOX**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 8.1930000 lb/hour 35.9000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0.068 Units lb/MMBTU Reference : AP -42 Section 13.5
7. Emissions Method Code : 3
8. Calculations of Emissions : Emission Factor (EF) = 0.068 lb/MMBTU Flare heat input = 3,500 scfm * 58.5 % = 2,049.2 scfm 2,049.2 std ft3/min * 980 BTU/scf * 60 min/hr = 120.4 MMBtu/hr 120.4 MMBtu/hr * 0.068 lb/MMBtu = 8.193 lb/hr NOx 8.193 lb/hr NOx *24 hr/day *365 day/yr * 1/2000 ton/lb = 35.9 ton/yr
9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **PM10**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
1.9600000 lb/hour 8.6100000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 17 Units lb/MM dscf meth
Reference : AP-42 Sec.2.4

7. Emissions Method Code : 3

8. Calculations of Emissions :

Flare Flow Rate (Current) = 3500 scfm * (1-0.06) = 3,290 dry scfm
Landfill gas flow rate = 3290 dscfm * 58.5% Methane by vol. = 1926.2 dscfm methane

EF= 17 lb PM10 per million dscf methane

17 lb/MMdscf * 1926.2 dscfm * 1/1000000 * 60 min/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 8.61 ton/yr

9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **SO2**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
3.4900000 lb/hour 15.3000000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 100 Units ppmv
Reference : Mass Balance, AP -42

7. Emissions Method Code : 3

8. Calculations of Emissions :

Assume all sulfur in landfill gas is converted to SO2 in flare.
Upper bound conc. of sulfur (S) in landfill gas = 100 ppmv
MW of S = 32.06 g/mol
Ratio of MWs SO2/S = 2
Landfill gas flow = 3500 scfm * 1/35.31 m3/ft3 * 60 min/hr = 5947.3 m3/hr

100 ppmv * 41.57 mol/m3 * 32.06 g/mol = 133273 ug/m3 S in gas
133273 ug/m3 * 5947.3 m3/hr * 1/10^6 g/ug * 1/453.59 lb/g * 2 = 3.49 lb/hr SO2
3.49 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 15.3 ton/yr SO2

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

9. Pollutant Potential/Estimated Emissions Comment :

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **CO**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 25.4900000 lb/hour 111.6000000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0.37 Units lb/MMBTU Reference : AP -42 Sec. 13.5
7. Emissions Method Code : 3
8. Calculations of Emissions : Emission Factor (EF)= 0.37 lb/MMBTU (AP-42 - Sec. 13.5) Flare heat input = 2,000 scfm * 58.5 % methane by vol. = 1171 scfm 1171 scfm * 980 BTU/ft3 *60 min/hr = 68.9 MMBTU/hr 68.9 MMBTU/hr * 0.37 lb/MMBTU = 25.49 lb/hr 25.49 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 111.6 ton/yr
9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **NOX**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
   4.6800000 lb/hour 20.5100000 tons/year

4. Synthetically Limited?
   [ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
   to tons/year

6. Emissions Factor 0.068 Units lb/MMBTU
   Reference : AP-42 Sec.13.5

7. Emissions Method Code : 3

8. Calculations of Emissions :

   Emission Factor (EF) = 0.068 lb/MMBTU (AP-42 Sec.13.5)

   Flare heat input = 2000 scfm * 58.8 % Methane by vol. = 1171 scfm
   1171 scfm * 980 BTU/scf * 60 min/hr = 68.85 MMBtu/hr
   68.85 MMBtu/hr * 0.068 lb/MMBtu = 4.68 lb/hr NOx
   4.68 lb/hr NOx *24 hr/day *365 day/yr * 1/2000 ton/lb = 20.51 ton/yr

9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **PM10**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
1.1200000 lb/hour 4.9200000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 17 Units lb/10^6 dscf me
Reference : AP -42

7. Emissions Method Code : 3

8. Calculations of Emissions :

Emission Factor (EF)= 17 lb PM10 per million dscf methane

Landfill Gas Flow Rate = 2000 scfm (1-0.06) = 1,880 dscfm
1880 dscfm * 58.5 % Methane by vol. =1100.7 dry scfm methane

17 lb/MMdscf * 1100.7 dscfm * 1/1000000 * 60 min/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 4.92 ton/yr

9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Refer to Appendix E.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **SO2**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 1.9970000 lb/hour 8.7400000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 100 Units ppmv Reference :
7. Emissions Method Code : 3
8. Calculations of Emissions :

Assume all sulfur in landfill gas is converted to SO2 in flare.
Upper bound conc. of sulfur (S) in landfill gas = 100 ppmv
MW of S = 32.06 g/mol
Ratio of MWs SO2/S = 2
Landfill gas flow = 2000 scfm * 1/35.31 m3/ft3 * 60 min/hr = 3398 m3/hr

100 ppmv * 41.57 mol/m3 * 32.06 g/mol = 133273 ug/m3 S in gas
133273 ug/m3 * 3398.5 m3/hr * 1/10^6 g/ug * 1/453.59 lb/g * 2 = 1.997 lb/hr SO2
1.997 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 8.74 ton/yr SO2

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

9. Pollutant Potential/Estimated Emissions Comment :

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **VOC**

2. Total Percent Efficiency of Control : 98.00 %

3. Potential Emissions :
0.3200000 lb/hour 1.4000000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 595 Units ppmv
Reference : AP-42

7. Emissions Method Code : 3

8. Calculations of Emissions :

Landfill gas flow rate = 2000 scfm * 1/35.31 m3/ft3 * 60 min/hr = 3398.5 m3/hr

NMOC con. in landfill gas = 595 ppmv (AP-42)
MW of NMOC (as hexane) = 86.17 g/mol
NMOC destruction by flare = 98% (2% emitted)

595 ppmv* 41.57 mol/m3 * 86.17 g/mol = 2131342 ug/m3
2131342 ug/m3 * 3398.5 m3/hr * 1 e -06 g/ug * 1/453.59 lb/g = 15.97 lb/hr uncontrolled NMOC
15.97 lb/hr * 0.02 = 0.32 lb/hr controlled NMOC
0.32 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 1.4 ton/yr controlled NMOC

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

9. Pollutant Potential/Estimated Emissions Comment :

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : **CO**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 12.7200000 lb/hour 55.7900000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0.37 Units lb/MMBTU Reference : AP-42 Sec. 13.5
7. Emissions Method Code : 3
8. Calculations of Emissions : Emission Factor (EF) = 0.37 lb/MMBTU (AP-42 Sec 13.5) Flare heat input = 1000 scfm * 58.5% Methane by vol. = 585 scfm 585 scfm*980 BTU/ft3 *60 min/hr = 34.39 MMBTU/hr 34.39 MMBTU/hr * 0.37 lb/MMBTU = 12.72 lb/hr 12.72 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 55.79 ton/yr
9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : **NOX**
2. Total Percent Efficiency of Control : %
3. Potential Emissions : 2.3400000 lb/hour 10.2500000 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0.068 Units lb/MMBtu Reference : AP-42 (Sec.13.5)
7. Emissions Method Code : 3
8. Calculations of Emissions : Emission Factor (UF) = 0.068 lb/MMBTU Flare heat input = 1000 scfm * 58.5 % Methane by Vol. = 585.5 scfm 585 scfm * 980 BTU/scf * 60 min/hr = 34.42 MMBtu/hr 34.42 MMBtu/hr * 0.068 lb/MMBtu = 2.34 lb/hr NOx 2.34 lb/hr NOx *24 hr/day *365 day/yr * 1/2000 ton/lb = 10.25 ton/yr
9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

EF (above) taken from AP-42 Sec.13.5 Industrial flares, which provides data for open candle-stick flares, as opposed to Sec. 2.4 - MSW Landfills, which offers data more appropriate for enclosed flares

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : **PM10**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
0.5600000 lb/hour 2.4600000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 17 Units lb/10^6 dscf me
Reference : AP-42

7. Emissions Method Code : 3

8. Calculations of Emissions :

EF= 17 lb PM10 per million dscf methane
Landfill gas flow rate = 1000 * (1-0.06) = 940 dscfm
940 dry scfm * 0.585 = 550.3 dscfm methane

17 lb/MMdscf * 550.3 dscfm * 1/1000000 * 60 min/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 2.46 ton/yr

9. Pollutant Potential/Estimated Emissions Comment :

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION.
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted : **VOC**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
0.1600000 lb/hour 0.7000000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 595 Units ppmv
Reference : AP-42

7. Emissions Method Code : 3

8. Calculations of Emissions :

Landfill gas flow rate = 1000 scfm * 1/35.31 m3/ft3 * 60 min/hr = 1699.23 m3/hr

NMOC con. in landfill gas = 595 ppmv (AP-42)
MW of NMOC (as hexane) = 86.17 g/mol
NMOC destruction by flare = 98% (2% emitted)

595 ppmv* 41.57 mol/m3 * 86.17 g/mol = 2131342 ug/m3
2131342 ug/m3 * 1699.23 m3/hr * 1 e -06 g/ug * 1/453.59 lb/g = 7.98 lb/hr uncontrolled NMOC
7.98 lb/hr * 0.02 = 0.16 lb/hr controlled NMOC
0.16 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 0.70 ton/yr controlled NMOC

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

9. Pollutant Potential/Estimated Emissions Comment :

Refer to Appendix E

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : **SO2**

2. Total Percent Efficiency of Control : %

3. Potential Emissions :
0.9980000 lb/hour 4.3700000 tons/year

4. Synthetically Limited?
[ ] Yes [X] No

5. Range of Estimated Fugitive/Other Emissions:
to tons/year

6. Emissions Factor 100 Units ppmv
Reference : AP-42

7. Emissions Method Code : 3

8. Calculations of Emissions :

Assume all sulfur in landfill gas is converted to SO2 in flare.
Upper bound conc. of sulfur (S) in landfill gas = 100 ppmv
MW of S = 32.06 g/mol
Ratio of MWs SO2/S = 2
Landfill gas flow = 1000 scfm * 1/35.31 m3/ft3 * 60 min/hr = 1699 m3/hr

100 ppmv * 41.57 mol/m3 * 32.06 g/mol = 133273 ug/m3 S in gas
133273 ug/m3 * 1699.3 m3/hr * 1/10^6 g/ug * 1/453.59 lb/g * 2 = 0.998 lb/hr SO2
0.998 lb/hr * 24 hr/day * 365 day/yr * 1/2000 ton/lb = 4.37 ton/yr SO2

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

9. Pollutant Potential/Estimated Emissions Comment :

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

Pollutant Information Section 5

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	98.00 Percent Removal
4. Equivalent Allowable Emissions :	lb/hour tons/year
5. Method of Compliance : 40 CFR 60.18	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) : 40 CFR Subpart WWW	

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Pollutant Information Section 5

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE	
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units :	98.00	percent removal
4. Equivalent Allowable Emissions :	lb/hour	tons/year
5. Method of Compliance : 40 CFR 60.18		

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :

Required by 40 CFR 60 Subpart WWW

HCl is emitted in less than threshold amounts, and not emissions limited, so it is not reported in H. See Appendix E for calculations.

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Information Section 1

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE	
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units :	98.00	percent removal
4. Equivalent Allowable Emissions :	lb/hour	tons/year
5. Method of Compliance : 40 CFR 60.18		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) : Required by 40 CFR 60 Subpart WWW HCl is emitted in less than threshold amounts, and not emissions limited, so it is not reported in H. See Appendix E.		

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Pollutant Information Section 4

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE	
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units :	98.00	Percent Removal
4. Equivalent Allowable Emissions :	lb/hour	tons/year
5. Method of Compliance : 40 CFR 60.18		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) : Required by 40 CFR Subpart WWW HCl is emitted in less than threshold amounts, and not emissions limited, so it is reported in H. See Appendix E for calculations.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Class I Landfill 3,500 scfm flare

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	05	
2. Basis for Allowable Opacity :	RULE	
3. Requested Allowable Opacity :		
Normal Conditions :	5	%
Exceptional Conditions :	20	%
Maximum Period of Excess Opacity Allowed :	5	min/hour
4. Method of Compliance :		
EPA Reference Method 22 (40 CFR 60 Appendix A)		
5. Visible Emissions Comment :		
40 CFR 60.18 (c) (1): no visible emissions (<5% opacity), as determined by Method 22, except for periods not exceeding 5 minutes during two consecutives hours.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype : 05

2. Basis for Allowable Opacity : RULE

3. Requested Allowable Opacity :

Normal Conditions :	5	%
Exceptional Conditions :	20	%
Maximum Period of Excess Opacity Allowed :	5	min/hour

4. Method of Compliance :

EPA Reference Method 22 (40 CFR 60 Appendix A)

5. Visible Emissions Comment :

40 CFR 60.18 (c) (1): no visible emissions (<5% opacity), as determined by Method 22, except for periods not exceeding 5 minutes during two consecutive hours.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype : 05

2. Basis for Allowable Opacity : RULE

3. Requested Allowable Opacity :

Normal Conditions :	5	%
Exceptional Conditions :	20	%
Maximum Period of Excess Opacity Allowed :	5	min/hour

4. Method of Compliance :

EPA Reference Method 22 (40 CFR 60 Appendix A)

5. Visible Emissions Comment :

40 CFR 60.18 (c) (1): no visible emissions (<5% opacity), as determined by Method 22, except for periods not exceeding 5 minutes during two consecutive hours.

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code : TEMP	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

Continuous Monitoring System Continuous Monitor 2

1. Parameter Code : FLOW	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Proposed 2,000 scfm flare (LRF/BPF)

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code : TEMP	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

Continuous Monitoring System Continuous Monitor 2

1. Parameter Code : FLOW	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
Proposed 1,000 scfm flare (LRF/BPF)

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code : TEMP	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

Continuous Monitoring System Continuous Monitor 2

1. Parameter Code : FLOW	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : Information to be provided at time of installation.	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :

PM : C	SO2 : C	NO2 : C

4. Baseline Emissions :

PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year

5. PSD Comment :

As per FAC, 60-212.400, PM, SO2 and NOx collateral emissions resulting from a control device are not considered significant.

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
As per FAC 62-212.400, PM, SO2, and NO2 collateral emissions resulting from a control device are not considered significant		

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

[ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :

PM : C	SO2 : C	NO2 : C

4. Baseline Emissions :

PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year

5. PSD Comment :

As per FAC 62-212.400, PM, SO2, and NO2 collateral emissions resulting from a control device are not considered significant.

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

Class I Landfill 3,500 scfm flare

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Appendix C
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Appendix I
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	Appendix J
8. Supplemental Information for Construction Permit Application :	Appendix E
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alterntive Modes of Operation (Emissions Trading) :	NA

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA

14. Acid Rain Application (Hard-copy Required) :

NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

Proposed 2,000 scfm flare (LRF/BPF)

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Appendix C
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Appendix I
4. Description of Stack Sampling Facilities :	
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	Appendix J
8. Supplemental Information for Construction Permit Application :	Appendix E
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alterntive Modes of Operation (Emissions Trading) :	NA

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA

14. Acid Rain Application (Hard-copy Required) :

NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 3

Proposed 1,000 scfm flare (LRF/BPF)

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Appendix C
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Appendix I
4. Description of Stack Sampling Facilities :	
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	Appendix J
8. Supplemental Information for Construction Permit Application :	Appendix E
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alterntive Modes of Operation (Emissions Trading) :	NA

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA

14. Acid Rain Application (Hard-copy Required) :

NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

APPENDIX A

Area Map

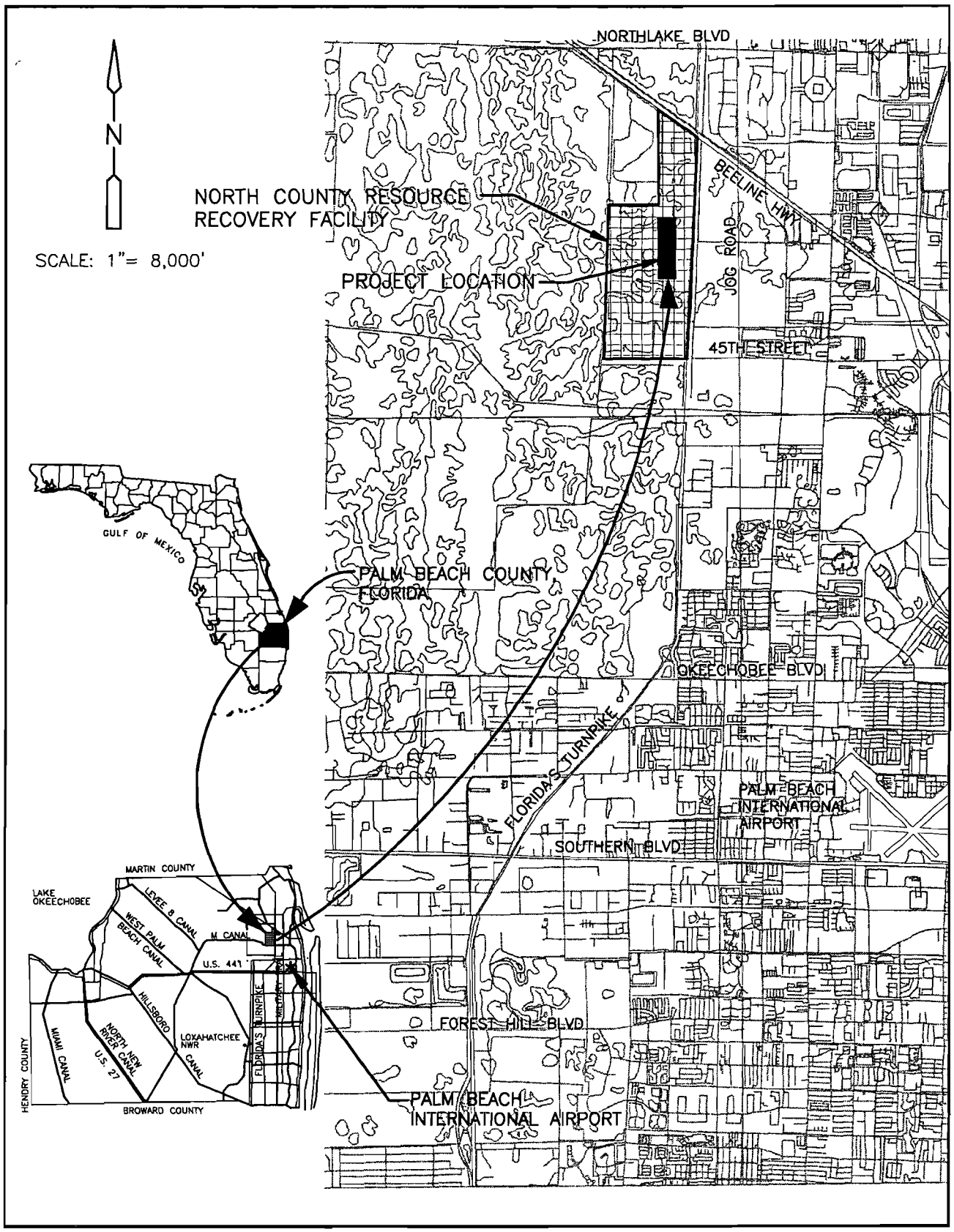

Figure A-1
Solid Waste Authority of Palm Beach County
Title V Application
Area Map

CDM

L:\2678\36419\100p\REPORT\ FIGUREA-1 10/10/ 9:57:02 gerthjl 17:03:44

APPENDIX B

Facility Plot Plan

gerthjl
18:39:39
10/10/03 15:04:44
L:\2678\36419\100p\REPORT\ FIGUREB-1

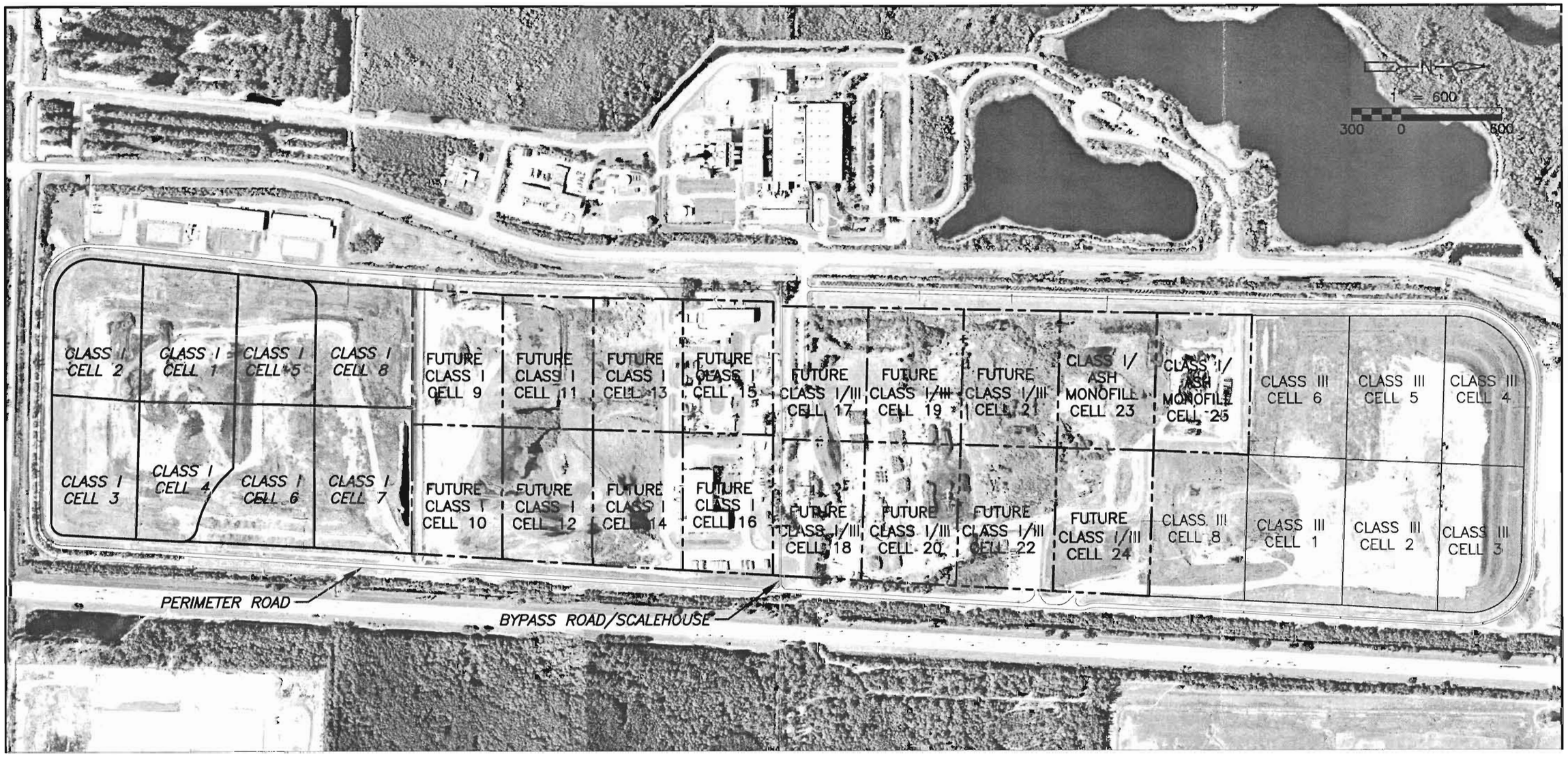

Figure B-1
Solid Waste Authority of Palm Beach County
NCRRF Proposed Class I Landfill Site Plan

CDM

APPENDIX C

Process Flow Diagram

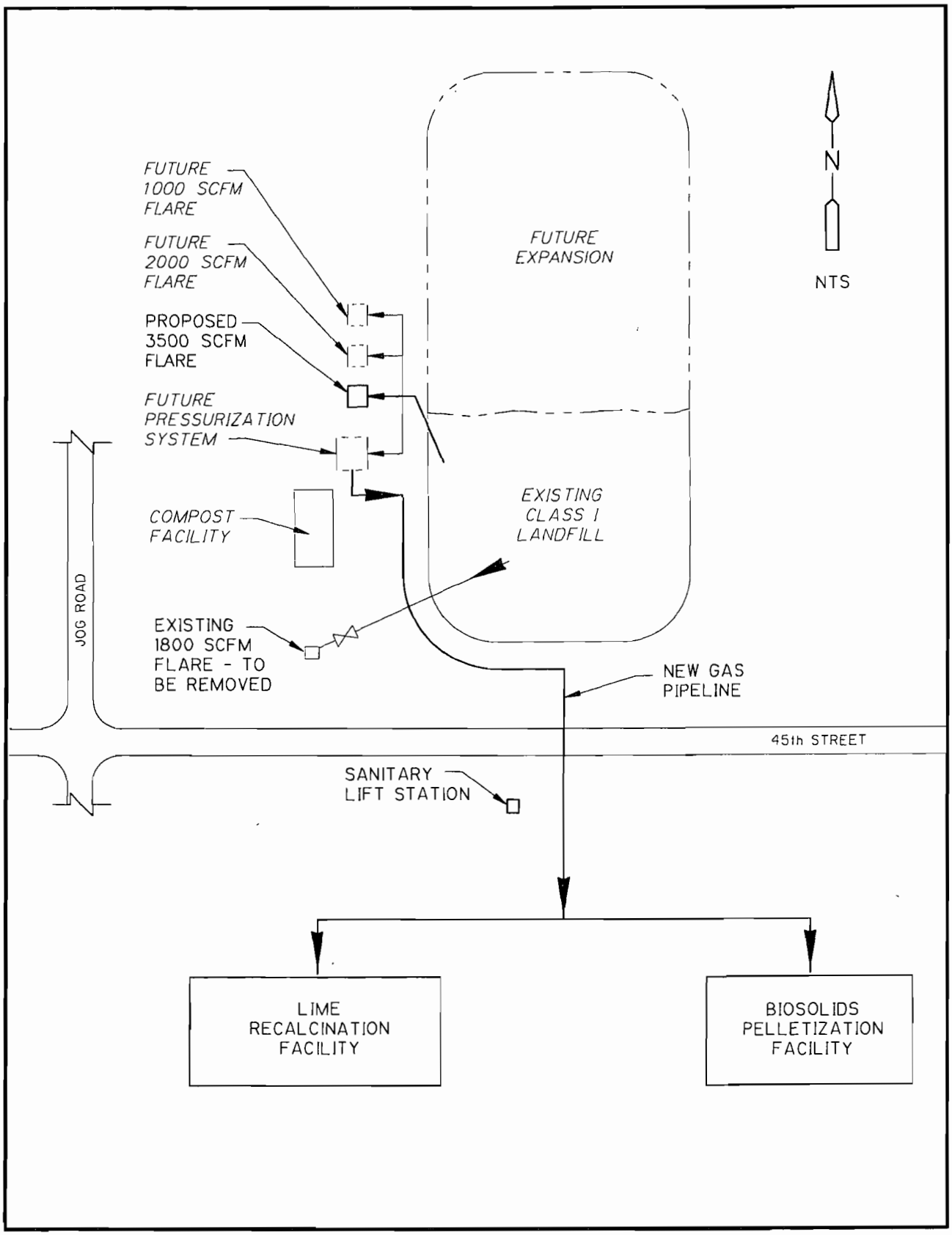

Figure C-1
Tie-in of Landfill Gas Collection to the LRF and BPF

CDM

gerthjl 10/10/03 14:21:43 L:\2678\36419\100p\REPORT\ C-2noaerial

N

N.T.S.

CLASS I LANDFILL
(BUILD-OUT CONDITIONS)

CLASS I CELL 2	CLASS I CELL 1	CLASS I CELL 5	CLASS I CELL 8	FUTURE CLASS I CELL 9	FUTURE CLASS I CELL 11	FUTURE CLASS I CELL 13	FUTURE CLASS I CELL 15	FUTURE CLASS I/III CELL 17	FUTURE CLASS I/III CELL 19	FUTURE CLASS I/III CELL 21	CLASS I/ ASH MONOFILL CELL 23	CLASS I/ ASH MONOFILL CELL 25	CLASS III CELL 6	CLASS III CELL 5	CLASS III CELL 4
CLASS I CELL 3	CLASS I CELL 4	CLASS I CELL 6	CLASS I CELL 7	FUTURE CLASS I CELL 10	FUTURE CLASS I CELL 12	FUTURE CLASS I CELL 14	FUTURE CLASS I CELL 16	FUTURE CLASS I/III CELL 18	FUTURE CLASS I/III CELL 20	FUTURE CLASS I/III CELL 22	FUTURE CLASS I/III CELL 24	CLASS III CELL 8	CLASS III CELL 1	CLASS III CELL 2	CLASS III CELL 3

PERIMETER ROAD

BYPASS ROAD/SCALEHOUSE

Figure C-2
Solid Waste Authority of Palm Beach County
Class I Landfill Build-Out Conditions

CDM

Appendix D
Precautions to Prevent Emissions of Unconfined Particulate Matter

In accordance with the guidance contained in 62-296.320(4)(b)4.a., FAC, Control of Unconfined Particulate Matter, the following dust control measures are practiced at the North County Resource Recovery Facility (NCRRF) Site:

- All parking lots and permanent drives are paved.
- A water truck sprays water as a dust suppressant to unpaved roads and active unpaved areas.
- Landfill areas that are closed are promptly re-vegetated.
- Ash is quenched with water prior to landfilling.

APPENDIX E

Supplemental Information for Construction Permit Application

APPENDIX E
Emission Calculation Tables

Table Number	Table Name	Description
	Existing Flare Emission Calculations	
E-1	Methane Emission Rates	Calculation of Methane and NMOC emission rates for the existing flare.
E-2	HAP Emission Rates	Calculation of HAP emission rates for the existing flare, based on default HAP concentrations in landfill gas as listed in AP-42
	Proposed 1000 SCFM Flare Emission Calculations	
E-3	Exit Gas Flow Rate Calculations	Calculation of exit flow and velocity from the flare
E-4	Methane Emission Rates	Calculation of Methane and NMOC emission rates for the proposed flare.
E-5	HAP Emission Rates	Calculation of HAP emission rates for the proposed flare, based on default HAP concentrations in landfill gas as listed in AP-42
E-6	Secondary Pollutant Emission Rates from Flare	Calculation of CO and NO_X emissions based on vendor information. Calculation of SO_2 and HCl based on AP-42 calculations and flare data.
	Proposed 2000 SCFM Flare Emission Calculations	
E-7	Exit Gas Flow Rate Calculations	Calculation of exit flow and velocity from the flare
E-8	Methane Emission Rates	Calculation of Methane and NMOC emission rates for the proposed flare.
E-9	HAP Emission Rates	Calculation of HAP emission rates for the proposed flare, based on default HAP concentrations in landfill gas as listed in AP-42
E-10	Secondary Pollutant Emission Rates from Flare	Calculation of CO and NO_X emissions based on vendor information. Calculation of SO_2 and HCl based on AP-42 calculations and flare data.
	Proposed 3500 SCFM Flare Emission Calculations (operating at capacity)	
E-11	Exit Gas Flow Rate Calculations	Calculation of exit flow and velocity from the flare
E-12	Methane Emission Rates	Calculation of Methane and NMOC emission rates for the proposed flare.
E-13	HAP Emission Rates	Calculation of HAP emission rates for the proposed flare, based on default HAP concentrations in landfill gas as listed in AP-42
E-14	Secondary Pollutant Emission Rates from Flare	Calculation of CO and NO_X emissions based on vendor information. Calculation of SO_2 and HCl based on AP-42 calculations and flare data.

Proposed 3500 SCFM Flare Emission Calculations (operating 800 SCFM to account for LRF and BPF demand of 2700 SCFM)		
E-15	Exit Gas Flow Rate Calculations	Calculation of exit flow and velocity from the flare
E-16	Methane Emission Rates	Calculation of Methane and NMOC emission rates for the proposed flare.
E-17	HAP Emission Rates	Calculation of HAP emission rates for the proposed flare, based on default HAP concentrations in landfill gas as listed in AP-42
E-18	Secondary Pollutant Emission Rates from Flare	Calculation of CO and NO_X emissions based on vendor information. Calculation of SO_2 and HCl based on AP-42 calculations and flare data.

Table E-1
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Methane Emission Rates - Existing Flare

Flare Actual Flow Rate:	1033.7	scfm	15384840.09 m^3/year
Methane Content of Landfill Gas:	58.5%	(percent by volume)	
Total Methane Flow to Flare:	605.2	scfm	9007489.42 m^3/year
MW of Methane	16		

Methane Emission Rate

Pollutant	Methane Flow Rate to Flare (m^3/year)	Methane Flow Rate to Flare (m^3/minute)	Methane (Mg/yr)*
Class I Landfill			
Methane	9007489	17.1	5,991

*41.57 Conversion from std. m^3/yr to g/yr.

0.285625616

NMOC Emission Rate

Pollutant	Concentration of NMOC (ppmv)	MW of NMOC (g/mol)	Concentration of NMOC ($\mu g/m^3$)	NMOC, Uncontrolled (Mg/yr)	NMOC, Uncontrolled (tpy)	NMOC, Controlled* (tpy)	NMOC, Controlled* (lbs/hr)
Class I Landfill							
NMOC	595	86.2	2,131,589	33	33	0.7	0.152

* 98% Control of NMOC assumed for calculation

Table E-2

SWA, Existing Flare HAP Emissions

Input Information:

NMOC concentration in landfill gas:	595	ppmdv expressed as hexane with MW of:		86.17
Equivalent mass/volume conc. is:	2131341.71	ug/m3	[ug/m3 = (ppm)41.57(MW)]	
Uncontrolled NMOC Emission Rate	33	Mg/yr	1.03989588 g/s	

HAP	Molecular Weight	Default Conc. (ppmv)	Mass Conc. (ug/m3)	Emissions (Mg/yr)	Emissions (tons/yr)
1,1,1-Trichlorethane (methyl chloroform)	133.42	0.480	2617.38	4.03E-02	4.08E-02
1,1,2,2-Tetrachloroethane	167.85	1.11	7614.63	1.17E-01	1.19E-01
1,1,2-Trichloroethane	133.42	0.100	545.29	8.39E-03	8.50E-03
1,1-Dichloroethane (ethylidene dichloride)	98.95	2.35	9503.60	1.46E-01	1.48E-01
1,1-Dichloroethene (vinylidene chloride)	96.94	0.201	796.35	1.23E-02	1.24E-02
1,2-Dichloroethane (ethylene dichloride)	98.96	0.407	1646.11	2.53E-02	2.57E-02
1,2-Dichloropropane (propylene dichloride)	112.98	0.18	831.15	1.28E-02	1.30E-02
Acrylonitrile	53.06	6.33	13727.00	2.11E-01	2.14E-01
Benzene	78.11	1.91	6097.40	9.38E-02	9.51E-02
Carbon disulfide	76.13	0.583	1813.97	2.79E-02	2.83E-02
Carbon tetrachloride	153.84	0.004	25.15	3.87E-04	3.92E-04
Carbonyl sulfide	60.07	0.490	1202.98	1.85E-02	1.88E-02
Chlorbenzene	112.56	0.254	1168.48	1.80E-02	1.82E-02
Chloroethane	64.52	1.25	3296.17	5.07E-02	5.14E-02
Chlorform	119.39	0.03	146.38	2.25E-03	2.28E-03
Chloromethane (methyl chloride)	50.49	1.21	2496.87	3.84E-02	3.89E-02
Dichlorbenzene	147.00	0.213	1279.68	1.97E-02	1.99E-02
Dichlormethane (methylene chloride)	84.94	14.3	49642.42	7.64E-01	7.74E-01
Ethylbenzene	106.16	4.61	20001.68	3.08E-01	3.12E-01
Hexane	86.17	6.57	23138.02	3.56E-01	3.61E-01
Mercury	200.61	0.000292	2.39	3.68E-05	3.73E-05
Methyl ethyl ketone (2-butanone)	72.10	7.09	20892.29	3.21E-01	3.26E-01
Methyl isobutyl ketone (hexone)	100.16	1.87	7654.92	1.18E-01	1.19E-01
Perchloroethylene (tetrachloroethylene)	165.83	3.73	25279.97	3.89E-01	3.94E-01
Toluene	92.13	39.3	147978.38	2.28E+00	2.31E+00
Trichloroethylene	131.40	2.82	15144.30	2.33E-01	2.36E-01
Vinyl chloride	62.50	7.34	18749.11	2.88E-01	2.92E-01
Xylenes	106.16	12.1	52498.99	8.08E-01	8.18E-01
Total Uncontrolled VOC HAPs (before flare)					6.79E+00
Total Mercury					3.73E-05
Total Controlled VOC HAPs					1.36E-01
Total HAPs					**0.14**

Table E-3
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Exit Gas Flow Rate Calculations - Proposed 1000 SCFM Flare

Maximum Potential Gas Flow Rate

Flare Gas Flow Design Capacity:	1000	scfm
cf of air needed to combust 1 cf of LFG:	15.7	(ratio)
Exit Gas Flow Rate:	15700	scfm

Gas going to LRF (33 MMBtu/hr):	958.6	scfm
Gas going to BPF (23 MMBtu/hr):	668.1	scfm

	Actual	Standard
Moisture Content of Gas (%):	6.0%	0%
Temperature of Gas (°F):	1400	68

Conversion from scfm to dscfm:

$$\frac{15700\ \frac{ft^3}{minute}}{} * (1 - 0.06) = \frac{14{,}758\ \frac{dscf}{minute}}{}$$

Converstion from scfm to acfm:

$$\frac{15700\ \frac{ft^3}{minute}}{} * \frac{(459.67°R + 1400°F)}{(459.67°R + 68°F)} = \frac{55{,}332\ \frac{acf}{minute}}{}$$

Table E-4

SWA Lime Recalcination Facility and Sludge Pelletization Facility

Methane Emission Rates - Proposed 1000 SCFM Flare

Flare Gas Flow Design Capacity:	1000	scfm	14883336.36 m^3/year
Methane Content of Landfill Gas:	58.5%	(percent by volume)	
Total Methane Flow to Flare:	585.5	scfm	8713869.89 m^3/year
MW of Methane	16		

Methane Emission Rate

Pollutant	Methane Flow Rate to Flare (m^3/year)	Methane Flow Rate to Flare (m^3/minute)	Methane (Mg/yr)*
Class I Landfill			
Methane	8713870	16.6	5,796

*41.57 Conversion from std. m^3/yr to g/yr.

Table E-5

SWA, Proposed 1000 SCFM Flare HAP Emissions

Input Information:

NMOC concentration in landfill gas:	595	ppmdv expressed as hexane with MW of:		86.17
Equivalent mass/volume conc. is:	2131341.71	ug/m3	[ug/m3 = (ppm)41.57(MW)]	
NMOC Emission Rate	32	Mg/yr	1.00599812 g/s	

HAP	Molecular Weight	Default Conc. (ppmv)	Mass Conc. (ug/m3)	Emissions (Mg/yr)	Emissions (tons/yr)
1,1,1-Trichlorethane (methyl chloroform)	133.42	0.480	2617.38	3.90E-02	3.95E-02
1,1,2,2-Tetrachloroethane	167.85	1.11	7614.63	1.13E-01	1.15E-01
1,1,2-Trichloroethane	133.42	0.100	545.29	8.12E-03	8.22E-03
1,1-Dichloroethane (ethylidene dichloride)	98.95	2.35	9503.60	1.41E-01	1.43E-01
1,1-Dichloroethene (vinylidene chloride)	96.94	0.201	796.35	1.19E-02	1.20E-02
1,2-Dichloroethane (ethylene dichloride)	98.96	0.407	1646.11	2.45E-02	2.48E-02
1,2-Dichloropropane (propylene dichloride)	112.98	0.18	831.15	1.24E-02	1.25E-02
Acrylonitrile	53.06	6.33	13727.00	2.04E-01	2.07E-01
Benzene	78.11	1.91	6097.40	9.08E-02	9.20E-02
Carbon disulfide	76.13	0.583	1813.97	2.70E-02	2.74E-02
Carbon tetrachloride	153.84	0.004	25.15	3.74E-04	3.79E-04
Carbonyl sulfide	60.07	0.490	1202.98	1.79E-02	1.81E-02
Chlorbenzene	112.56	0.254	1168.48	1.74E-02	1.76E-02
Chloroethane	64.52	1.25	3296.17	4.91E-02	4.97E-02
Chlorform	119.39	0.03	146.38	2.18E-03	2.21E-03
Chloromethane (methyl chloride)	50.49	1.21	2496.87	3.72E-02	3.77E-02
Dichlorbenzene	147.00	0.213	1279.68	1.90E-02	1.93E-02
Dichlormethane (methylene chloride)	84.94	14.3	49642.42	7.39E-01	7.49E-01
Ethylbenzene	106.16	4.61	20001.68	2.98E-01	3.02E-01
Hexane	86.17	6.57	23138.02	3.44E-01	3.49E-01
Mercury	200.61	0.000292	2.39	3.56E-05	3.61E-05
Methyl ethyl ketone (2-butanone)	72.10	7.09	20892.29	3.11E-01	3.15E-01
Methyl isobutyl ketone (hexone)	100.16	1.87	7654.92	1.14E-01	1.15E-01
Perchloroethylene (tetrachloroethylene)	165.83	3.73	25279.97	3.76E-01	3.81E-01
Toluene	92.13	39.3	147978.38	2.20E+00	2.23E+00
Trichloroethylene	131.40	2.82	15144.30	2.25E-01	2.28E-01
Vinyl chloride	62.50	7.34	18749.11	2.79E-01	2.83E-01
Xylenes	106.16	12.1	52498.99	7.81E-01	7.92E-01
Total Uncontrolled VOC HAPs (before flare)					6.57E+00
Total Mercury					3.61E-05
Total Controlled VOC HAPs					1.31E-01
Total HAPs					**0.13**

Table E-6
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Secondary Pollutant Emission Rates - Proposed 1000 SCFM Flare

Flare Gas Flow Design Capacity:	1000	scfm	14883336.36 m^3/year	0.4719475
Methane Content of Landfill Gas:	58.5%	(percent by volume)		
Total Methane Flow to Flare:	585.5			
Energy content of methane:	980	Btu/ft^3	34603.8 Btu/m^3	

CO and NOx Emission Rates Based on Vendor Emission Factors

Pollutant	Methane Flow Rate to Flare (scfm)	Energy input to flare (MMBtu/yr)	Emission Factor (lb/MMBtu)	Emissions from Flare (lb/yr)	Emissions from Flare (ton/yr)
Class I Landfill					
Carbon Monoxide	585	301572.8	0.37	111581.9	55.79
Nitrogen Oxides	585	301572.8	0.068	20507.0	10.25

SO2 and HCl Emission Rates Based on Mass Balance

Pollutant	Total Landfill Gas Flow Rate to Flare (Std. m^3/yr)	Concentration of S or Cl in Landfill Gas (ppmV)	Emission rate of S or Cl (m^3/yr)	Molecular Weight of S or Cl (g/gmol)	Temperature at Standard Conditions (°C)	Uncontrolled Mass Emissions of S or Cl (kg/yr)	Control Efficiency (%)	Ratio of Molecular Weights SO_2/S or HCl/Cl	Controlled Mass Emissions of Pollutant (kg/yr)	Controlled Mass Emissions of Pollutant (lb/hr)	Controlled Mass Emissions of Pollutant (ton/yr)
Class I Landfill											
Sulfur - Sulfur Dioxide	14883336	100	1488.33	32.06	20	1983.80	0	2.00	3964.01	1.0E+00	4.4
Chlorine - Hydrogen Chloride	14883336	42.0	625.10	35.45	20	921.18	91	1.03	85.29	2.1E-02	0.09

The emission rates for CO and NO_X are from U.S. EPA, *Compilation of Air Pollutant Emision Factors*, Report No. AP-42, Section 13.5, Industrial Flares, September 1991. The calculation of SO_2 and HCl is from: U.S. EPA, *Compilation of Air Pollutant Emission Factors*, Report No. AP-42, Section 2.4, updated November, 1997.

Table E-7
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Exit Gas Flow Rate Calculations - Proposed 2000 SCFM Flare

Maximum Potential Gas Flow Rate

Flare Gas Flow Design Capacity:	2000	scfm
cf of air needed to combust 1 cf of LFG:	15.7	(ratio)
Exit Gas Flow Rate:	31400	scfm

Gas going to LRF (33 MMBtu/hr):	958.6	scfm
Gas going to BPF (23 MMBtu/hr):	668.1	scfm

	Actual	Standard
Moisture Content of Gas (%):	6.0%	0%
Temperature of Gas (°F):	1400	68

Conversion from scfm to dscfm:

$$\frac{31400\ \frac{ft^3}{minute}}{} * (1 - 0.06) = \frac{29{,}516\ \frac{dscf}{minute}}{}$$

Converstion from scfm to acfm:

$$\frac{31400\ \frac{ft^3}{minute}}{} * \frac{(459.67°R + 1400°F)}{(459.67°R + 68°F)} = \frac{110{,}663\ \frac{acf}{minute}}{}$$

Table E-8

SWA Lime Recalcination Facility and Sludge Pelletization Facility

Methane Emission Rates - Proposed 2000 SCFM Flare

Flare Gas Flow Design Capacity:	2000	scfm	29766672.72 m^3/year
Methane Content of Landfill Gas:	58.5%	(percent by volume)	
Total Methane Flow to Flare:	1171.0	scfm	17427739.78 m^3/year
MW of Methane	16		

Methane Emission Rate

Pollutant	Methane Flow Rate to Flare (m^3/year)	Methane Flow Rate to Flare (m^3/minute)	Methane (Mg/yr)*
Class I Landfill			
Methane	17427740	33.2	11,592

*41.57 Conversion from std. m^3/yr to g/yr.

Table E-9

SWA, Proposed 2000 SCFM Flare HAPs Emissions

Input Information:

NMOC concentration in landfill gas:	595	ppmdv expressed as hexane with MW of:		86.17
Equivalent mass/volume conc. is:	2131341.71	ug/m3	[ug/m3 = (ppm)41.57(MW)]	
NMOC Emission Rate	63	Mg/yr	2.01199624 g/s	

HAP	Molecular Weight	Default Conc. (ppmv)	Mass Conc. (ug/m3)	Emissions (Mg/yr)	Emissions (tons/yr)
1,1,1-Trichlorethane (methyl chloroform)	133.42	0.480	2617.38	7.79E-02	7.89E-02
1,1,2,2-Tetrachloroethane	167.85	1.11	7614.63	2.27E-01	2.30E-01
1,1,2-Trichloroethane	133.42	0.100	545.29	1.62E-02	1.64E-02
1,1-Dichloroethane (ethylidene dichloride)	98.95	2.35	9503.60	2.83E-01	2.87E-01
1,1-Dichloroethene (vinylidene chloride)	96.94	0.201	796.35	2.37E-02	2.40E-02
1,2-Dichloroethane (ethylene dichloride)	98.96	0.407	1646.11	4.90E-02	4.97E-02
1,2-Dichloropropane (propylene dichloride)	112.98	0.18	831.15	2.47E-02	2.51E-02
Acrylonitrile	53.06	6.33	13727.00	4.09E-01	4.14E-01
Benzene	78.11	1.91	6097.40	1.82E-01	1.84E-01
Carbon disulfide	76.13	0.583	1813.97	5.40E-02	5.47E-02
Carbon tetrachloride	153.84	0.004	25.15	7.49E-04	7.59E-04
Carbonyl sulfide	60.07	0.490	1202.98	3.58E-02	3.63E-02
Chlorbenzene	112.56	0.254	1168.48	3.48E-02	3.52E-02
Chloroethane	64.52	1.25	3296.17	9.81E-02	9.94E-02
Chlorform	119.39	0.03	146.38	4.36E-03	4.42E-03
Chloromethane (methyl chloride)	50.49	1.21	2496.87	7.43E-02	7.53E-02
Dichlorbenzene	147.00	0.213	1279.68	3.81E-02	3.86E-02
Dichlormethane (methylene chloride)	84.94	14.3	49642.42	1.48E+00	1.50E+00
Ethylbenzene	106.16	4.61	20001.68	5.95E-01	6.03E-01
Hexane	86.17	6.57	23138.02	6.89E-01	6.98E-01
Mercury	200.61	0.000292	2.39	7.13E-05	7.22E-05
Methyl ethyl ketone (2-butanone)	72.10	7.09	20892.29	6.22E-01	6.30E-01
Methyl isobutyl ketone (hexone)	100.16	1.87	7654.92	2.28E-01	2.31E-01
Perchloroethylene (tetrachloroethylene)	165.83	3.73	25279.97	7.53E-01	7.63E-01
Toluene	92.13	39.3	147978.38	4.41E+00	4.46E+00
Trichloroethylene	131.40	2.82	15144.30	4.51E-01	4.57E-01
Vinyl chloride	62.50	7.34	18749.11	5.58E-01	5.66E-01
Xylenes	106.16	12.1	52498.99	1.56E+00	1.58E+00
Total Uncontrolled VOC HAPs (before flare)					1.31E+01
Total Mercury					7.22E-05
Total Controlled VOC HAPs					2.63E-01
Total HAPs					**0.26**

Table E-10
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Secondary Pollutant Emission Rates - Proposed 2000 SCFM Flare

Flare Gas Flow Design Capacity:	2000	scfm	29766672.72 m^3/year	0.943895
Methane Content of Landfill Gas:	58.5%	(percent by volume)		
Total Methane Flow to Flare:	1171.0			
Energy content of methane:	980	Btu/ft^3	34603.8 Btu/m^3	

CO and NOx Emission Rates Based on Vendor Emission Factors

Pollutant	Methane Flow Rate to Flare (scfm)	Energy input to flare (MMBtu/yr)	Emission Factor (lb/MMBtu)	Emissions from Flare (lb/yr)	Emissions from Flare (ton/yr)
Class I Landfill					
Carbon Monoxide	1171	603145.7	0.37	223163.9	111.58
Nitrogen Oxides	1171	603145.7	0.068	41013.9	20.51

SO2 and HCl Emission Rates Based on Mass Balance

Pollutant	Total Landfill Gas Flow Rate to Flare (Std. m^3/yr)	Concentration of S or Cl in Landfill Gas (ppmV)	Emission rate of S or Cl (m^3/yr)	Molecular Weight of S or Cl (g/gmol)	Temperature at Standard Conditions (°C)	Uncontrolled Mass Emissions of S or Cl (kg/yr)	Control Efficiency (%)	Ratio of Molecular Weights SO_2/S or HCl/Cl	Controlled Mass Emissions of Pollutant (kg/yr)	Controlled Mass Emissions of Pollutant (lb/hr)	Controlled Mass Emissions of Pollutant (ton/yr)
Class I Landfill											
Sulfur - Sulfur Dioxide	29766673	100	2976.67	32.06	20	3967.60	0	2.00	7928.03	2.0E+00	8.7
Chlorine - Hydrogen Chloride	29766673	42.0	1250.20	35.45	20	1842.37	91	1.03	170.58	4.3E-02	0.19

The emission rates for CO and NOX are from U.S. EPA, *Compilation of Air Pollutant Emision Factors*, Report No. AP-42, Section 13.5, Industrial Flares, September 1991. The calculation of SO2 and HCl is from: U.S. EPA, *Compilation of Air Pollutant Emission Factors*, Report No. AP-42, Section 2.4, updated November, 1997.

Table E-11
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Exit Gas Flow Rate Calculations - Proposed 3500 SCFM Flare

Maximum Potential Gas Flow Rate

Flare Gas Flow Design Capacity:	3500	scfm
cf of air needed to combust 1 cf of LFG:	15.7	(ratio)
Exit Gas Flow Rate:	54950	scfm

Gas going to LRF (33 MMBtu/hr):	958.6	scfm
Gas going to BPF (23 MMBtu/hr):	668.1	scfm

	Actual	Standard
Moisture Content of Gas (%):	6.0%	0%
Temperature of Gas (°F):	1400	68

Conversion from scfm to dscfm:

$$\frac{54950\ \frac{ft^3}{minute}}{} * (1 - 0.06) = \frac{51{,}653\ \frac{dscf}{minute}}{}$$

Converstion from scfm to acfm:

$$\frac{54950\ \frac{ft^3}{minute}}{} * \frac{(459.67°R + 1400°F)}{(459.67°R + 68°F)} = \frac{193{,}661\ \frac{acf}{minute}}{}$$

Table E-12

SWA Lime Recalcination Facility and Sludge Pelletization Facility

Methane Emission Rates - Proposed 3500 SCFM Flare

Flare Gas Flow Design Capacity:	3500	scfm	52091677.26 m^3/year
Methane Content of Landfill Gas:	58.5%	(percent by volume)	
Total Methane Flow to Flare:	2049.2	scfm	30498544.61 m^3/year
MW of Methane	16		

Methane Emission Rate

Pollutant	Methane Flow Rate to Flare (m^3/year)	Methane Flow Rate to Flare (m^3/minute)	Methane (Mg/yr)*
Class I Landfill			
Methane	30498545	58.0	20,285

*41.57 Conversion from std. m^3/yr to g/yr.

Table E-13

SWA, Proposed 3500 SCFM Flare HAP Emissions

Input Information:

NMOC concentration in landfill gas:	595	ppmdv expressed as hexane with MW of:		86.17
Equivalent mass/volume conc. is:	2131341.71	ug/m3	[ug/m3 = (ppm)41.57(MW)]	
NMOC Emission Rate	111	Mg/yr	3.52099343 g/s	

HAP	Molecular Weight	Default Conc. (ppmv)	Mass Conc. (ug/m3)	Emissions (Mg/yr)	Emissions (tons/yr)
1,1,1-Trichlorethane (methyl chloroform)	133.42	0.480	2617.38	1.36E-01	1.38E-01
1,1,2,2-Tetrachloroethane	167.85	1.11	7614.63	3.97E-01	4.02E-01
1,1,2-Trichloroethane	133.42	0.100	545.29	2.84E-02	2.88E-02
1,1-Dichloroethane (ethylidene dichloride)	98.95	2.35	9503.60	4.95E-01	5.02E-01
1,1-Dichloroethene (vinylidene chloride)	96.94	0.201	796.35	4.15E-02	4.20E-02
1,2-Dichloroethane (ethylene dichloride)	98.96	0.407	1646.11	8.58E-02	8.69E-02
1,2-Dichloropropane (propylene dichloride)	112.98	0.18	831.15	4.33E-02	4.39E-02
Acrylonitrile	53.06	6.33	13727.00	7.15E-01	7.25E-01
Benzene	78.11	1.91	6097.40	3.18E-01	3.22E-01
Carbon disulfide	76.13	0.583	1813.97	9.45E-02	9.58E-02
Carbon tetrachloride	153.84	0.004	25.15	1.31E-03	1.33E-03
Carbonyl sulfide	60.07	0.490	1202.98	6.27E-02	6.35E-02
Chlorbenzene	112.56	0.254	1168.48	6.09E-02	6.17E-02
Chloroethane	64.52	1.25	3296.17	1.72E-01	1.74E-01
Chlorform	119.39	0.03	146.38	7.63E-03	7.73E-03
Chloromethane (methyl chloride)	50.49	1.21	2496.87	1.30E-01	1.32E-01
Dichlorbenzene	147.00	0.213	1279.68	6.67E-02	6.75E-02
Dichlormethane (methylene chloride)	84.94	14.3	49642.42	2.59E+00	2.62E+00
Ethylbenzene	106.16	4.61	20001.68	1.04E+00	1.06E+00
Hexane	86.17	6.57	23138.02	1.21E+00	1.22E+00
Mercury	200.61	0.000292	2.39	1.25E-04	1.26E-04
Methyl ethyl ketone (2-butanone)	72.10	7.09	20892.29	1.09E+00	1.10E+00
Methyl isobutyl ketone (hexone)	100.16	1.87	7654.92	3.99E-01	4.04E-01
Perchloroethylene (tetrachloroethylene)	165.83	3.73	25279.97	1.32E+00	1.33E+00
Toluene	92.13	39.3	147978.38	7.71E+00	7.81E+00
Trichloroethylene	131.40	2.82	15144.30	7.89E-01	7.99E-01
Vinyl chloride	62.50	7.34	18749.11	9.77E-01	9.90E-01
Xylenes	106.16	12.1	52498.99	2.74E+00	2.77E+00
Total Uncontrolled VOC HAPs (before flare)					2.30E+01
Total Mercury					1.26E-04
Total Controlled VOC HAPs					4.60E-01
Total HAPs					**0.46**

Table E-14
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Secondary Pollutant Emission Rates - Proposed 3500 SCFM Flare

Flare Gas Flow Design Capacity:	3500	scfm	52091677.26 m^3/year	1.65181625
Methane Content of Landfill Gas:	58.5%	(percent by volume)		
Total Methane Flow to Flare:	2049.2			
Energy content of methane:	980	Btu/ft^3	34603.8 Btu/m^3	

CO and NOx Emission Rates Based on Vendor Emission Factors

Pollutant	Methane Flow Rate to Flare (scfm)	Energy input to flare (MMBtu/yr)	Emission Factor (lb/MMBtu)	Emissions from Flare (lb/yr)	Emissions from Flare (ton/yr)
Class I Landfill					
Carbon Monoxide	2049	1055504.9	0.37	390536.8	195.27
Nitrogen Oxides	2049	1055504.9	0.068	71774.3	35.89

SO2 and HCl Emission Rates Based on Mass Balance

Pollutant	Total Landfill Gas Flow Rate to Flare (Std. m^3/yr)	Concentration of S or Cl in Landfill Gas (ppmV)	Emission rate of S or Cl (m^3/yr)	Molecular Weight of S or Cl (g/gmol)	Temperature at Standard Conditions (°C)	Uncontrolled Mass Emissions of S or Cl (kg/yr)	Control Efficiency (%)	Ratio of Molecular Weights SO_2/S or HCl/Cl	Controlled Mass Emissions of Pollutant (kg/yr)	Controlled Mass Emissions of Pollutant (lb/hr)	Controlled Mass Emissions of Pollutant (ton/yr)
Class I Landfill											
Sulfur - Sulfur Dioxide	52091677	100	5209.17	32.06	20	6943.30	0	2.00	13874.04	3.5E+00	15.3
Chlorine - Hydrogen Chloride	52091677	42.0	2187.85	35.45	20	3224.14	91	1.03	298.52	7.5E-02	0.33

The emission rates for CO and NO_X are from U.S. EPA, *Compilation of Air Pollutant Emision Factors*, Report No. AP-42, Section 13.5, Industrial Flares, September 1991. The calculation of SO2 and HCl is from: U.S. EPA, *Compilation of Air Pollutant Emission Factors*, Report No. AP-42, Section 2.4, updated November, 1997.

Table E-15
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Exit Gas Flow Rate Calculations - Proposed 3500 SCFM Flare
(Operating at 800 SCFM to account for LRF/BPF demand of 2700 SCFM)

Maximum Potential Gas Flow Rate

Flare Gas Flow Design Capacity:	800	scfm
cf of air needed to combust 1 cf of LFG:	15.7	(ratio)
Exit Gas Flow Rate:	12560	scfm

Gas going to LRF (33 MMBtu/hr):	958.6	scfm
Gas going to BPF (23 MMBtu/hr):	668.1	scfm

	Actual	Standard
Moisture Content of Gas (%):	6.0%	0%
Temperature of Gas (°F):	1400	68

Conversion from scfm to dscfm:

$$\frac{12560\ \frac{ft^3}{minute}}{} * (1 - 0.06) = \frac{11{,}806\ \frac{dscf}{minute}}{}$$

Converstion from scfm to acfm:

$$\frac{12560\ \frac{ft^3}{minute}}{} * \frac{(459.67°R + 1400°F)}{(459.67°R + 68°F)} = \frac{44{,}265\ \frac{acf}{minute}}{}$$

Table E-16

SWA Lime Recalcination Facility and Sludge Pelletization Facility

Methane Emission Rates - Proposed 3500 SCFM Flare

(Operating at 800 SCFM to account for LRF/BPF demand of 2700 SCFM)

Flare Gas Flow Design Capacity:	800	scfm	11906669.09 m^3/year
Methane Content of Landfill Gas:	58.5%	(percent by volume)	
Total Methane Flow to Flare:	468.4	scfm	6971095.91 m^3/year
MW of Methane	16		

Methane Emission Rate

Pollutant	Methane Flow Rate to Flare (m^3/year)	Methane Flow Rate to Flare (m^3/minute)	Methane (Mg/yr)*
Class I Landfill Methane	6971096	13.3	4,637

*41.57 Conversion from std. m^3/yr to g/yr.

Table E-17

SWA, Proposed 3500 SCFM Flare HAP Emissions

(Operating at 800 SCFM to account for LRF/BPF demand of 2700 SCFM)

Input Information:

NMOC concentration in landfill gas:	595	ppmdv expressed as hexane with MW of:		86.17
Equivalent mass/volume conc. is:	2131341.71	ug/m3	[ug/m3 = (ppm)41.57(MW)]	
NMOC Emission Rate	25	Mg/yr	0.8047985 g/s	

HAP	Molecular Weight	Default Conc. (ppmv)	Mass Conc. (ug/m3)	Emissions (Mg/yr)	Emissions (tons/yr)
1,1,1-Trichlorethane (methyl chloroform)	133.42	0.480	2617.38	3.12E-02	3.16E-02
1,1,2,2-Tetrachloroethane	167.85	1.11	7614.63	9.07E-02	9.19E-02
1,1,2-Trichloroethane	133.42	0.100	545.29	6.49E-03	6.58E-03
1,1-Dichloroethane (ethylidene dichloride)	98.95	2.35	9503.60	1.13E-01	1.15E-01
1,1-Dichloroethene (vinylidene chloride)	96.94	0.201	796.35	9.48E-03	9.61E-03
1,2-Dichloroethane (ethylene dichloride)	98.96	0.407	1646.11	1.96E-02	1.99E-02
1,2-Dichloropropane (propylene dichloride)	112.98	0.18	831.15	9.90E-03	1.00E-02
Acrylonitrile	53.06	6.33	13727.00	1.63E-01	1.66E-01
Benzene	78.11	1.91	6097.40	7.26E-02	7.36E-02
Carbon disulfide	76.13	0.583	1813.97	2.16E-02	2.19E-02
Carbon tetrachloride	153.84	0.004	25.15	2.99E-04	3.03E-04
Carbonyl sulfide	60.07	0.490	1202.98	1.43E-02	1.45E-02
Chlorbenzene	112.56	0.254	1168.48	1.39E-02	1.41E-02
Chloroethane	64.52	1.25	3296.17	3.93E-02	3.98E-02
Chlorform	119.39	0.03	146.38	1.74E-03	1.77E-03
Chloromethane (methyl chloride)	50.49	1.21	2496.87	2.97E-02	3.01E-02
Dichlorbenzene	147.00	0.213	1279.68	1.52E-02	1.54E-02
Dichlormethane (methylene chloride)	84.94	14.3	49642.42	5.91E-01	5.99E-01
Ethylbenzene	106.16	4.61	20001.68	2.38E-01	2.41E-01
Hexane	86.17	6.57	23138.02	2.76E-01	2.79E-01
Mercury	200.61	0.000292	2.39	2.85E-05	2.89E-05
Methyl ethyl ketone (2-butanone)	72.10	7.09	20892.29	2.49E-01	2.52E-01
Methyl isobutyl ketone (hexone)	100.16	1.87	7654.92	9.12E-02	9.24E-02
Perchloroethylene (tetrachloroethylene)	165.83	3.73	25279.97	3.01E-01	3.05E-01
Toluene	92.13	39.3	147978.38	1.76E+00	1.79E+00
Trichloroethylene	131.40	2.82	15144.30	1.80E-01	1.83E-01
Vinyl chloride	62.50	7.34	18749.11	2.23E-01	2.26E-01
Xylenes	106.16	12.1	52498.99	6.25E-01	6.33E-01
Total Uncontrolled VOC HAPs (before flare)					5.26E+00
Total Mercury					2.89E-05
Total Controlled VOC HAPs					1.05E-01
Total HAPs					**0.11**

Table E-18
SWA Lime Recalcination Facility and Sludge Pelletization Facility
Secondary Pollutant Emission Rates - Proposed 3500 SCFM Flare
(Operating at 800 SCFM to account for LRF/BPF demand of 2700 SCFM)

Flare Gas Flow Design Capacity:	800	scfm	11906669.09 m^3/year	0.377558
Methane Content of Landfill Gas:	58.5%	(percent by volume)		
Total Methane Flow to Flare:	468.4			
Energy content of methane:	980	Btu/ft^3	34603.8 Btu/m^3	

CO and NOx Emission Rates Based on Vendor Emission Factors

Pollutant	Methane Flow Rate to Flare (scfm)	Energy input to flare (MMBtu/yr)	Emission Factor (lb/MMBtu)	Emissions from Flare (lb/yr)	Emissions from Flare (ton/yr)
Class I Landfill					
Carbon Monoxide	468	241258.3	0.37	89265.6	44.63
Nitrogen Oxides	468	241258.3	0.068	16405.6	8.20

SO2 and HCl Emission Rates Based on Mass Balance

Pollutant	Total Landfill Gas Flow Rate to Flare (Std. m^3/yr)	Concentration of S or Cl in Landfill Gas (ppmV)	Emission rate of S or Cl (m^3/yr)	Molecular Weight of S or Cl (g/gmol)	Temperature at Standard Conditions (°C)	Uncontrolled Mass Emissions of S or Cl (kg/yr)	Control Efficiency (%)	Ratio of Molecular Weights SO_2/S or HCl/Cl	Controlled Mass Emissions of Pollutant (kg/yr)	Controlled Mass Emissions of Pollutant (lb/hr)	Controlled Mass Emissions of Pollutant (ton/yr)
Class I Landfill											
Sulfur - Sulfur Dioxide	11906669	100	1190.67	32.06	20	1587.04	0	2.00	3171.21	8.0E-01	3.5
Chlorine - Hydrogen Chloride	11906669	42.0	500.08	35.45	20	736.95	91	1.03	68.23	1.7E-02	0.08

The emission rates for CO and NO_X are from U.S. EPA, *Compilation of Air Pollutant Emision Factors*, Report No. AP-42, Section 13.5, Industrial Flares, September 1991. The calculation of SO2 and HCl is from: U.S. EPA, *Compilation of Air Pollutant Emission Factors*, Report No. AP-42, Section 2.4, updated November, 1997.

APPENDIX F

List of Proposed Exempt / Insignificant Activities

APPENDIX F

LIST OF PROPOSED EXEMPT/INSIGNIFICANT ACTIVITIES

Source	Quantity	Description	Reason for Exemption
Cross-Bar Lime Cooler	1	lime product cooler	Criteria emissions < 5 ton/yr (See Appendix E)
Lime Storage Silo	2	baghouse exhaust	Criteria emissions < 5 ton/yr (See Appendix E)
Biosolids Pellet Storage Silo	4	baghouse exhaust	Criteria emissions < 5 ton/yr (See Appendix E)
Cooling Tower (2 cells)	2	1500 gpm for each tower	Criteria emissions < 5 ton/yr (See Appendix E)
Emergency Motor	1	gasoline-powered motor to rotate hot LRF Kiln during power outage	Rule 62-210.300 3.(a)20., F.A.C.

Appendix G
Compliance Plan for Installation, Startup and Testing of New Gas Flares

Installation and Compliance Testing

The 3,500 scfm landfill gas flare by LFG Specialties will be delivered to the site approximately 120 days after issuance of permit. After removing the existing flare unit and installing the new unit, startup can commence. After installation and startup, numerous operational tests have to be completed for acceptance. These tests will include all of the normal control functions of the gas flare unit such as startup, shutdown, closure of the landfill gas isolation (butterfly) valve, automatic restart after power failures, downtime notification system etc. FDEP will be notified when startup has occurred.

After the operational testing, the entire collection system will be balanced, flows checked, and the Initial Control System Performance Tests completed.

When the flare has successfully passed the compliance and performance tests as outlined in Table G-1, FDEP will be notified of the completion, and a report will be submitted to the Department within 180 days of the start-up of the new flare as required by 40 CFR 60.8(a), 40 CFR 60.757(f) and (g).

Two additional landfill gas flares have been proposed for future use. A 2,000 scfm flare will be added to handle the build out condition at the landfill and a 1,000 scfm flare will be later added to accommodate any overflow from the Lime Recalcination/Biosolids Pelletization Facilities. Therefore, both of these flares will not be considered for the compliance schedule and milestones at this time.

Approximate Schedule and Milestones

The proposed schedule is highly dependent on negotiations with the manufacturer of the landfill gas flare and their manufacturing schedule. Any proposed changes to this schedule will be submitted to FDEP in advance. Please see attached Table G-1.

Table G-1
Compliance Plan Schedule for Installation, Startup, and Testing of New Gas Flare

Activity	Date (Calendar Days after issuance of permit)*	Comment
Order Flare	30	
Notification to Department of Flare Installation & Startup	90	30 days prior to installation of flare unit.
Delivery of Flare	120	
Removal of Old Blower and Flare and Installation of New Blower and Flare	120-125	Installation of new control valve and blower will require shutdown and startup of collection system. Per 40 CFR 60.755(e), duration of start-up, shutdown or malfunction, shall not exceed 5 days for collection systems.
Startup of New Flare System & Operational Testing	120-125	Collection System and Flare startup will occur as soon as installation is complete. The control valve to the flare will remain closed during shutdown and startup; therefore, no gas will be vented into the atmosphere.
Notify FDEP of Startup	120-125	
Notification to the Department of Compliance Testing	120-125	At least 30 days prior to compliance testing per Rule 62-297.310 F.A.C., and 40 CFR 60.8
Balance Collection System and Allow to Stabilize	120-125	
Compliance Testing Begins	150-155	Per 40 CFR 60.8(a), compliance testing must be conducted within 180 days after initial start-up.
Flow Rates	150-155	
Flare Tip Velocity	150-155	Per Reference Methods 2, 2A, 2C or 2D as appropriate
Net Heating Value of Gas	150-155	Per ASTM D-2382-76 or 88
Visible Emissions Testing	150-155	Per 40 CFR 60 App A Method 22
Submit Compliance Testing Reports	160	Per 40 CFR 60.8(a), compliance testing reports must be submitted within 180 days after initial start-up.

Note: Scheduled Activity will occur within the number of days after issuance of permit. Minimum notification periods and report submittal periods will be followed as required.

Appendix H
Compliance Report and Certification

Owner/Authorized Representative or Responsible Official Statement:

All other emissions units listed in this application are either unregulated emissions units or not subject to performance and/or reporting requirements.

I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this application is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made above are true, accurate, and complete.

John D. Booth, P.E., DEE
Executive Director
Solid Waste Authority of Palm Beach County

10/9/03
Date

Appendix I
Detailed Description of Control Equipment

The control equipment proposed at the NCRRF was designed in accordance with the United States Environmental Protection Agency (EPA) criteria for open flares, as required by 40 CFR 60.18.

Enclosed is the technical data supplied by the vendor, LFG Specialties, for all three proposed flares.

UTILITY FLARE MODEL CF1440I12
TECHNICAL DATA

A. FLOW RATE

- Maximum 3644 SCFM
- Minimum 607 SCFM

B. GAS COMPOSITION

- 40-60% CH_4, Remainder – CO_2, Air, Inerts
- Temp/Pres: 80° F, 12 in. w.c.

C. FLARE SIZE

- 14 in. tip, 44 ft. overall height flare

D. Turndown Ratio -- 6:1

E. Destruction efficiency at design flow with gas methane content 40 to 60% -- 98% overall destruction of total hydrocarbons

Guaranteed to meet E.P.A. emission standards for landfill gas disposal in utility "candle type" flares.

Note: Flare is designed in accordance with the United States Environmental Protection Agency (EPA) established criteria for open flares, 40 CFR 60.18

F. Minimum methane content required to maintain stable flame and 98% destruction efficiency -- 30%

H. Flow/Emissions (expected) at maximum flow, 50% methane content and 1400°F combustion temperature:

N_2	73.5 % vol.
O_2	13.6 % vol.
CO_2	6.0 % vol.
H_2O	6.9 % vol.
NO_2	0.068 lbs./MMBTU *
CO	0.37 lbs./MMBTU *

* Per the US EPA AP-42 Supplement D, Table 13.5-1

NOTE:

NOTE:

- Wind loads - Designed for 100 mph wind loading (per ASCE 7-88, Exp. C)

UTILITY FLARE MODEL CF103018
TECHNICAL DATA

A. FLOW RATE

- Maximum 2131 SCFM
- Minimum 355 SCFM

B. GAS COMPOSITION

- 40-60% CH_4, Remainder – CO_2, Air, Inerts
- Temp/Pres: 80° F, 12 in. w.c.

C. FLARE SIZE

- 10 in. tip, 33 ft. overall height flare

D. Turndown Ratio -- 6:1

E. Destruction efficiency at design flow with gas methane content 40 to 60% -- 98% overall destruction of total hydrocarbons

Guaranteed to meet E.P.A. emission standards for landfill gas disposal in utility "candle type" flares.

Note: Flare is designed in accordance with the United States Environmental Protection Agency (EPA) established criteria for open flares, 40 CFR 60.18

F. Minimum methane content required to maintain stable flame and 98% destruction efficiency -- 30%

H. Flow/Emissions (expected) at maximum flow, 50% methane content and 1400°F combustion temperature:

N_2	73.5 % vol.
O_2	13.6 % vol.
CO_2	6.0 % vol.
H_2O	6.9 % vol.
NO_2	0.068 lbs./MMBTU *
CO	0.37 lbs./MMBTU *

* Per the US EPA AP-42 Supplement D, Table 13.5-1

NOTE:

NOTE:

- Wind loads - Designed for 100 mph wind loading (per ASCE 7-88, Exp. C)

UTILITY FLARE MODEL CF825I6
TECHNICAL DATA

A. FLOW RATE

- Maximum 1362 SCFM
- Minimum 227 SCFM

B. GAS COMPOSITION

- 40-60% CH_4, Remainder – CO_2, Air, Inerts
- Temp/Pres: 80° F, 12 in. w.c.

C. FLARE SIZE

- 8 in. tip, 28 ft. overall height flare

D. Turndown Ratio -- 6:1

E. Destruction efficiency at design flow with gas methane content 40 to 60% -- 98% overall destruction of total hydrocarbons

Guaranteed to meet E.P.A. emission standards for landfill gas disposal in utility "candle type" flares.

Note: Flare is designed in accordance with the United States Environmental Protection Agency (EPA) established criteria for open flares, 40 CFR 60.18

F. Minimum methane content required to maintain stable flame and 98% destruction efficiency -- 30%

H. Flow/Emissions (expected) at maximum flow, 50% methane content and 1400°F combustion temperature:

N_2	73.5 % vol.
O_2	13.6 % vol.
CO_2	6.0 % vol.
H_2O	6.9 % vol.
NO_2	0.068 lbs./MMBTU *
CO	0.37 lbs./MMBTU *

* Per the US EPA AP-42 Supplement D, Table 13.5-1

NOTE:

NOTE:

- Wind loads - Designed for 100 mph wind loading (per ASCE 7-88, Exp. C)

Appendix J
Operation and Maintenance Plan for New Landfill Gas Flares

LFG Specialties Landfill Gas Flare O&M Manual

Copies of the LFG Specialties O&M Manual for the 1,800 scfm flare currently operating at the NCRRF Class I Landfill are kept at SWA offices. All flares are manufactured by the same company; therefore the operation and maintenance plan will be very similar for all. The O&M Manual for the proposed flares will only be available after the flares are purchased.

APPENDIX K

Title V Core List

APPENDIX TV-4, TITLE V CONDITIONS (version dated 02/12/02)

[Note: This attachment includes "canned conditions" developed from the "Title V Core List."]

{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

Chapter 62-4, F.A.C.

1. **Not federally enforceable.** General Prohibition. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by Department rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated thereunder. A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.
[Rule 62-4.030, Florida Administrative Code (F.A.C.); Section 403.087, Florida Statute (F.S.)]

2. **Not federally enforceable.** Procedures to Obtain Permits and Other Authorizations; Applications.
(1) Any person desiring to obtain a permit from the Department shall apply on forms prescribed by the Department and shall submit such additional information as the Department by law may require.
(2) All applications and supporting documents shall be filed in quadruplicate with the Department.
(3) To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. All applications for a Department permit shall be certified by a professional engineer registered in the State of Florida except, when the application is for renewal of an air pollution operation permit at a non-Title V source as defined in Rule 62-210.200, F.A.C., or where professional engineering is not required by Chapter 471, F.S. Where required by Chapter 471 or 492, F.S., applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.
(4) Processing fees for air construction permits shall be in accordance with Rule 62-4.050(4), F.A.C.
(5)(a) To be considered by the Department, each application must be accompanied by the proper processing fee. The fee shall be paid by check, payable to the Department of Environmental Protection. The fee is non-refundable except as provided in Section 120.60, F.S., and in this section.
(c) Upon receipt of the proper application fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin.
(d) If the applicant does not submit the required fee within ten days of receipt of written notification, the Department shall either return the unprocessed application or arrange with the applicant for the pick up of the application.
(e) If an applicant submits an application fee in excess of the required fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin upon receipt, and the Department shall refund to the applicant the amount received in excess of the required fee.
(6) Any substantial modification to a complete application shall require an additional processing fee determined pursuant to the schedule set forth in Rule 62-4.050, F.A.C., and shall restart the time requirements of Sections 120.60 and 403.0876, F.S. For purposes of this Subsection, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review.
(7) Modifications to existing permits proposed by the permittee which require substantial changes in the existing permit or require substantial evaluation by the Department of potential impacts of the proposed modifications shall require the same fee as a new application for the same time duration except for modification under Chapter 62-45, F.A.C.
[Rule 62-4.050, F.A.C.]

3. Standards for Issuing or Denying Permits. Except as provided at Rule 62-213.460, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules.
[Rule 62-4.070(7), F.A.C.]

4. Modification of Permit Conditions.

(1) For good cause and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions and on application of the permittee the Department may grant additional time. For the purpose of this section, good cause shall include, but not be limited to, any of the following: **(also, see Condition No. 38.).**

(a) A showing that an improvement in effluent or emission quality or quantity can be accomplished because of technological advances without unreasonable hardship.

(b) A showing that a higher degree of treatment is necessary to effect the intent and purpose of Chapter 403, F.S.

(c) A showing of any change in the environment or surrounding conditions that requires a modification to conform to applicable air or water quality standards.

(e) Adoption or revision of Florida Statutes, rules, or standards which require the modification of a permit condition for compliance.

(2) A permittee may request a modification of a permit by applying to the Department.

(3) A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted to the Department in writing before the expiration of the permit. Upon timely submittal of a request for extension, unless the permit automatically expires by statute or rule, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. For all other permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that the extended permit will comply with the standards and conditions applicable to the original permit. A permit for which the permit application fee was prorated in accordance with Rule 62-4.050(4)(1), F.A.C., shall not be extended. In no event shall a permit be extended or remain in effect longer than the time limits established by statute or rule.

[Rule 62-4.080, F.A.C.]

5. Renewals. Prior to 180 days before the expiration of a permit issued pursuant to Chapter 62-213, F.A.C., the permittee shall apply for a renewal of a permit using forms incorporated by reference in the specific rule chapter for that kind of permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 180 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department or, if there is court review of the Department's final agency action, until a later date is required by Section 120.60, F.S., provided that, for renewal of a permit issued pursuant to Chapter 62-213, F.A.C., the applicant complies with the requirements of Rules 62-213.420(1)(b)3. and 4., F.A.C.

[Rule 62-4.090, F.A.C.]

6. Suspension and Revocation.

(1) Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.

(2) Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.

(3) A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or the his agent:

(a) Submitted false or inaccurate information in his application or operational reports.

(b) Has violated law, Department orders, rules or permit conditions.

(c) Has failed to submit operational reports or other information required by Department rules.

(d) Has refused lawful inspection under Section 403.091, F.S.

(4) No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

7. **Not federally enforceable.** Financial Responsibility. The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]

8. Transfer of Permits.
(1) Within 30 days after the sale or legal transfer of a permitted facility, an "Application for Transfer of Permit" (DEP Form 62-1.201(1)) must be submitted to the Department. This form must be completed with the notarized signatures of both the permittee and the proposed new permittee. For air permits, an "Application for Transfer of Air Permit" (DEP Form 62-210.900(7)) shall be submitted.
(2) The Department *shall* approve the transfer of a permit unless it determines that the proposed new permittee cannot provide reasonable assurances that conditions of the permit *will* be met. The determination shall be limited solely to the ability of the new permittee to comply with the conditions of the existing permit, and it shall not concern the adequacy of these permit conditions. If the Department proposes to deny the transfer, it shall provide both the permittee and the proposed new permittee a written objection to such transfer together with notice of a right to request a Chapter 120, F.S., proceeding on such determination.
(3) Within 30 days of receiving a properly completed Application for Transfer of Permit form, the Department shall issue a final determination. The Department may toll the time for making a determination on the transfer by notifying both the permittee and the proposed new permittee that additional information is required to adequately review the transfer request. Such notification shall be served within 30 days of receipt of an Application for Transfer of Permit form, completed pursuant to Rule 62-4.120(1), F.A.C. If the Department fails to take action to approve or deny the transfer within 30 days of receipt of the completed Application for Transfer of Permit form, or within 30 days of receipt of the last item of timely requested additional information, the transfer shall be deemed approved.
(4) The permittee is encouraged to apply for a permit transfer prior to the sale or legal transfer of a permitted facility. However, the transfer shall not be effective prior to the sale or legal transfer.
(5) Until this transfer is approved by the Department, the permittee and any other person constructing, operating, or maintaining the permitted facility shall be liable for compliance with the terms of the permit. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility.
[Rule 62-4.120, F.A.C.]

9. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. **(also, see Condition No. 10.).**
[Rule 62-4.130, F.A.C.]

10. For purposes of notification to the Department pursuant to Condition No. 9., Condition No. 12.(8), and Rule 62-4.130, F.A.C., Plant Operation-Problems, "immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of 40 CFR 70.6(a)(3)(iii)(B), "prompt" shall have the same meaning as "immediately". **[also, see Conditions Nos. 9. and 12.(8).]**
[40 CFR 70.6(a)(3)(iii)(B)]

11. **Not federally enforceable.** Review. Failure to request a hearing within 14 days of receipt of notice of proposed or final agency action on a permit application or as otherwise required in Chapter 62-103, F.A.C., shall be deemed a waiver of the right to an administrative hearing.
[Rule 62-4.150, F.A.C.]

12. Permit Conditions. All permits issued by the Department shall include the following general conditions:

(1) The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

(2) This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

(3) As provided in Subsections 403.087(7) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

(4) This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

(5) This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

(6) The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

(7) The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

(8) If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information: **(also, see Condition No. 10.)**

(a) A description of and cause of noncompliance; and,

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

(9) In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

(10) The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

(11) This permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

(12) This permit or a copy thereof shall be kept at the work site of the permitted activity.

(14) The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

(15) When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
[Rules 62-4.160 and 62-213.440(1)(b), F.A.C.]

13. Construction Permits.

(1) No person shall construct any installation or facility which will reasonably be expected to be a source of air or water pollution without first applying for and receiving a construction permit from the Department unless exempted by statute or Department rule. In addition to the requirements of Chapter 62-4, F.A.C., applicants for a Department Construction Permit shall submit the following as applicable:

(a) A completed application on forms furnished by the Department.

(b) An engineering report covering:

1. plant description and operations,
2. types and quantities of all waste material to be generated whether liquid, gaseous or solid,
3. proposed waste control facilities,
4. the treatment objectives,
5. the design criteria on which the control facilities are based, and,
6. other information deemed relevant.

Design criteria submitted pursuant to Rule 62-4.210(1)(b)5., F.A.C., shall be based on the results of laboratory and pilot-plant scale studies whenever such studies are warranted. The design efficiencies of the proposed waste treatment facilities and the quantities and types of pollutants in the treated effluents or emissions shall be indicated. Work of this nature shall be subject to the requirements of Chapter 471, F.S. Where confidential records are involved, certain information may be kept confidential pursuant to Section 403.111, F.S.

(c) The owners' written guarantee to meet the design criteria as accepted by the Department and to abide by Chapter 403, F.S. and the rules of the Department as to the quantities and types of materials to be discharged from the installation. The owner may be required to post an appropriate bond or other equivalent evidence of financial responsibility to guarantee compliance with such conditions in instances where the owner's financial resources are inadequate or proposed control facilities are experimental in nature.

(2) The construction permit may contain conditions and an expiration date as determined by the Secretary or the Secretary's designee.

(3) When the Department issues a permit to construct, the permittee shall be allowed a period of time, specified in the permit, to construct, and to operate and test to determine compliance with Chapter 403, F.S., and the rules of the Department and, where applicable, to apply for and receive an operation permit. The Department may require tests and evaluations of the treatment facilities by the permittee at his/her expense.
[Rule 62-4.210, F.A.C.]

14. **Not federally enforceable.** Operation Permit for New Sources. To properly apply for an operation permit for new sources, the applicant shall submit the appropriate fee and certification that construction was completed noting any deviations from the conditions in the construction permit and test results where appropriate.
[Rule 62-4.220, F.A.C.]

Chapters 28-106 and 62-110, F.A.C.

15. Public Notice, Public Participation, and Proposed Agency Action. The permittee shall comply with all of the requirements for public notice, public participation, and proposed agency action pursuant to Rules 62-110.106 and 62-210.350, F.A.C.
[Rules 62-110.106, 62-210.350 and 62-213.430(1)(b), F.A.C.]

16. Administrative Hearing. The permittee shall comply with all of the requirements for a petition for administrative hearing or waiver of right to administrative proceeding pursuant to Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.
[Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.]

Chapter 62-204, F.A.C.

17. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source.
[40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

Chapter 62-210, F.A.C.

18. Permits Required. The owner or operator of any emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, modification, or initial or continued operation of the emissions unit unless exempted pursuant to Department rule or statute. All emissions limitations, controls, and other requirements imposed by such permits shall be at least as stringent as any applicable limitations and requirements contained in or enforceable under the State Implementation Plan (SIP) or that are otherwise federally enforceable. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law.

(1) Air Construction Permits.

(a) Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new or modified facility or emissions unit prior to the beginning of construction or modification, in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C.. Except as provided under Rule 62-213.415, F.A.C., the owner or operator of any facility seeking to create or change an air emissions bubble shall obtain an air construction permit in accordance with all the applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C. The construction permit shall be issued for a period of time sufficient to allow construction or modification of the facility or emissions unit and operation while the new or modified facility or emissions unit is conducting tests or otherwise demonstrating initial compliance with the conditions of the construction permit.

(b) Notwithstanding the expiration of an air construction permit, all limitations and requirements of such permit that are applicable to the design and operation of the permitted facility or emissions unit shall remain in effect until the facility or emissions unit is permanently shut down, except for any such limitation or requirement that is obsolete by its nature (such as a requirement for initial compliance testing) or any such limitation or requirement that is changed in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C. Either the applicant or the Department can propose that certain conditions be considered obsolete. Any conditions or language in an air construction permit that are included for informational purposes only, if they are transferred to the air operation permit, shall be transferred for informational purposes only and shall not become enforceable conditions unless voluntarily agreed to by the permittee or otherwise required under Department rules.

1. Except for those limitations or requirements that are obsolete, all limitations and requirements of an air construction permit shall be included and identified in any air operation permit for the facility or emissions unit. The limitations and requirements included in the air operation permit can be changed, and thereby superseded, through the issuance of an air construction permit, federally enforceable state air operation permit, federally enforceable air general permit, or Title V air operation permit; provided, however, that:

a. Any change that would constitute an administrative correction may be made pursuant to Rule 62-210.360, F.A.C.;

b. Any change that would constitute a modification, as defined at Rule 62-210.200, F.A.C., shall be accomplished only through the issuance of an air construction permit; and

c. Any change in a permit limitation or requirement that originates from a permit issued pursuant to 40 CFR 52.21, Rule 62-204.800(10)(d)2., F.A.C., Rule 62-212.400, F.A.C., Rule 62-212.500, F.A.C., or any former codification of Rule 62-212.400 or Rule 62-212.500, F.A.C., shall be accomplished only through the issuance of a new or revised air construction permit under Rule 62-204.800(10)(d)2., Rule 62-212.400, or Rule 62-212.500, F.A.C., as appropriate.

2. The force and effect of any change in a permit limitation or requirement made in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C., shall be the same as if such change were made to the original air construction permit.

3. Nothing in Rule 62-210.300(1)(b), F.A.C., shall be construed as to allow operation of a facility or emissions unit without a valid air operation permit.

(2) Air Operation Permits. Upon expiration of the air operation permit for any existing facility or emissions unit, subsequent to construction or modification, or subsequent to the creation of or change to a bubble, and demonstration of compliance with the conditions of the construction permit for any new or modified facility or emissions unit, any air emissions bubble, or as otherwise provided in Chapter 62-210, F.A.C., or Chapter 62-213, F.A.C., the owner or operator of such facility or emissions unit shall obtain a renewal air operation permit, an initial air operation permit or general permit, or an administrative correction or revision of an existing air operation permit, whichever is appropriate, in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-213, F.A.C., and Chapter 62-4, F.A.C.

(a) Minimum Requirements for All Air Operation Permits. At a minimum, a permit issued pursuant to this subsection shall:

1. Specify the manner, nature, volume and frequency of the emissions permitted, and the applicable emission limiting standards or performance standards, if any;

2. Require proper operation and maintenance of any pollution control equipment by qualified personnel, where applicable in accordance with the provisions of any operation and maintenance plan required by the air pollution rules of the Department.

3. Contain an effective date stated in the permit which shall not be earlier than the date final action is taken on the application and be issued for a period, beginning on the effective date, as provided below.

a. The operation permit for an emissions unit which is in compliance with all applicable rules and in operational condition, and which the owner or operator intends to continue operating, shall be issued or renewed for a five-year period, except that, for Title V sources subject to Rule 62-213.420(1)(a)1., F.A.C., operation permits shall be extended until 60 days after the due date for submittal of the facility's Title V permit application as specified in Rule 62-213.420(1)(a)1., F.A.C.

b. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:

(i) the owner or operator of the emissions unit demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the owner's or operator's intent to apply to the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and,

(ii) the owner or operator of the emissions unit agrees to and is legally prohibited from providing the allowable emission permitted by the renewed permit as an emissions offset to any other person under Rule 62-212.500, F.A.C.; and,

(iii) the emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.

c. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in Rule 62-210.300(2)(a)3.b., F.A.C., are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.

d. The operation permit for an electric utility generating unit on cold standby or long-term reserve shutdown shall be renewed for a five-year period, and additional five-year periods, even if the unit is not maintained in operational condition, provided the conditions given in Rules 62-210.300(2)(a)3.b.(i) through (iii), F.A.C., are met.

4. In the case of an emissions unit permitted pursuant to Rules 62-210.300(2)(a)3.b., c., and d., F.A.C., include reasonable notification and compliance testing requirements for reactivation of such emissions unit and provide that the owner or operator demonstrate to the Department prior to reactivation that such reactivation would not constitute reconstruction pursuant to Rule 62-204.800(7), F.A.C.

[Rules 62-210.300(1) & (2), F.A.C.]

19. **Not federally enforceable.** Notification of Startup. The owner or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

(a) The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

(b) If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

20. Emissions Unit Reclassification.

(a) Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.

(b) If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

21. Transfer of Air Permits.

(a) An air permit is transferable only after submission of an Application for Transfer of Air Permit (DEP Form 62-210.900(7)) and Department approval in accordance with Rule 62-4.120, F.A.C. For Title V permit transfers only, a complete application for transfer of air permit shall include the requirements of 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C. Within 30 days after approval of the transfer of permit, the Department shall update the permit by an administrative permit correction pursuant to Rule 62-210.360, F.A.C.

(b) For an air general permit, the provision of Rules 62-210.300(7)(a) and 62-4.120, F.A.C., do not apply. Thirty (30) days before using an air general permit, the new owner must submit an air general permit notification to the Department in accordance with Rule 62-210.300(4), F.A.C., or Rule 62-213.300(2)(b), F.A.C.

[Rule 62-210.300(7), F.A.C.]

22. Public Notice and Comment.

(1) Public Notice of Proposed Agency Action.

(a) A notice of proposed agency action on permit application, where the proposed agency action is to issue the permit, shall be published by any applicant for:

1. An air construction permit;

2. An air operation permit, permit renewal or permit revision subject to Rule 62-210.300(2)(b), F.A.C., (i.e., a FESOP), except as provided in Rule 62-210.300(2)(b)1.b., F.A.C.; or

3. An air operation permit, permit renewal, or permit revision subject to Chapter 62-213, F.A.C., except Title V air general permits or those permit revisions meeting the requirements of Rule 62-213.412(1), F.A.C.

(b) The notice required by Rule 62-210.350(1)(a), F.A.C., shall be published in accordance with all otherwise applicable provisions of Rule 62-110.106, F.A.C. A public notice under Rule 62-210.350(1)(a)1., F.A.C., for an air construction permit may be combined with any required public notice under Rule 62-210.350(1)(a)2. or 3., F.A.C., for air operation permits. If such notices are combined, the public notice must comply with the requirements for both notices.

(c) Except as otherwise provided at Rules 62-210.350(2) and (5), F.A.C., each notice of intent to issue an air construction permit shall provide a 14-day period for submittal of public comments.

(2) Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment Area Preconstruction Review.

(a) Before taking final agency action on a construction permit application for any proposed new or modified facility or emissions unit subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:

1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S., and the Department's analysis of the effect of the proposed construction or modification on ambient air quality, including the Department's preliminary determination of whether the permit should be approved or disapproved;

2. A 30-day period for submittal of public comments; and,

3. A notice, by advertisement in a newspaper of general circulation in the county affected, specifying the nature and location of the proposed facility or emissions unit, whether BACT or LAER has been determined, the degree of PSD increment consumption expected, if applicable, and the location of the information specified in paragraph 1. above; and, notifying the public of the opportunity for submitting comments and requesting a public hearing.

(b) The notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action.

(c) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall also be sent by the Department to the Regional Office of the U. S. Environmental Protection Agency and to all other state and local officials or agencies having cognizance over the location of such new or modified facility or emissions unit, including local air pollution control agencies, chief executives of city or county government, regional land use planning agencies, and any other state, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the new or modified facility or emissions unit.

(d) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be displayed in the appropriate district, branch and local program offices.

(e) An opportunity for public hearing shall be provided in accordance with Chapter 120, F.S., and Rule 62-110.106, F.A.C.

(f) Any public comments received shall be made available for public inspection in the location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., is available and shall be considered by the Department in making a final determination to approve or deny the permit.

(g) The final determination shall be made available for public inspection at the same location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., was made available.

(h) For a proposed new or modified emissions unit which would be located within 100 kilometers of any Federal Class I area or whose emissions may affect any Federal Class I area, and which would be subject to the preconstruction review requirements of Rule 62-212.400, F.A.C., or Rule 62-212.500, F.A.C.:

1. The Department shall mail or transmit to the Administrator a copy of the initial application for an air construction permit and notice of every action related to the consideration of the permit application.

2. The Department shall mail or transmit to the Federal Land Manager of each affected Class I area a copy of any written notice of intent to apply for an air construction permit; the initial application for an air construction permit, including all required analyses and demonstrations; any subsequently submitted information related to the application; the preliminary determination and notice of proposed agency action on the permit application; and any petition for an administrative hearing regarding the application or the Department's proposed action. Each such document shall be mailed or transmitted to the Federal Land Manager within fourteen (14) days after its receipt by the Department.

(3) Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.

(a) Before taking final agency action to issue a new, renewed, or revised air operation permit subject to Chapter 62-213, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:

1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S.; and,

2. A 30-day period for submittal of public comments.

(b) The notice provided for in Rule 62-210.350(3)(a), F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action. If written comments received during the 30-day comment period on a draft permit result in the Department's issuance of a revised draft permit in accordance with Rule 62-213.430(1), F.A.C., the Department shall require the applicant to publish another public notice in accordance with Rule 62-210.350(1)(a), F.A.C.

(c) The notice shall identify:

1. The facility;

2. The name and address of the office at which processing of the permit occurs;

3. The activity or activities involved in the permit action;

4. The emissions change involved in any permit revision;

5. The name, address, and telephone number of a Department representative from whom interested persons may obtain additional information, including copies of the permit draft, the application, and all relevant supporting materials, including any permit application, compliance plan, permit, monitoring report, and compliance statement required pursuant to Chapter 62-213, F.A.C. (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), and all other materials available to the Department that are relevant to the permit decision;

6. A brief description of the comment procedures required by Rule 62-210.350(3), F.A.C.;

7. The time and place of any hearing that may be held, including a statement of procedure to request a hearing (unless a hearing has already been scheduled); and,

8. The procedures by which persons may petition the Administrator to object to the issuance of the proposed permit after expiration of the Administrator's 45-day review period.

[Rule 62-210.350, F.A.C.]

23. Administrative Permit Corrections.

(1) A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:

(a) Typographical errors noted in the permit;

(b) Name, address or phone number change from that in the permit;

(c) A change requiring more frequent monitoring or reporting by the permittee;

(d) A change in ownership or operational control of a facility, subject to the following provisions:

1. The Department determines that no other change in the permit is necessary;

2. The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and

3. The new permittee has notified the Department of the effective date of sale or legal transfer.

(e) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;

(f) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and,

(g) Any other similar minor administrative change at the source.

(2) Upon receipt of any such notification the Department shall within 60 days correct the permit and provide a corrected copy to the owner.

(3) After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.

(4) For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

(5) The Department shall incorporate requirements resulting from issuance of a new or revised construction permit into an existing Title V source permit, if the construction permit or permit revision incorporates requirements of federally enforceable preconstruction review, and if the applicant requests at the time of application that all of the requirements of Rule 62-213.430(1), F.A.C., be complied with in conjunction with the processing of the construction permit application.

[Rule 62-210.360, F.A.C.]

24. Reports.

(3) Annual Operating Report for Air Pollutant Emitting Facility.

(a) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year.

(c) The annual operating report shall be submitted to the appropriate Department District or Department approved local air pollution control program office by March 1 of the following year unless otherwise indicated by permit condition or Department request.

[Rule 62-210.370(3), F.A.C.]

25. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

[Rule 62-210.650, F.A.C.]

26. Forms and Instructions. The forms used by the Department in the stationary source control program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, with the subject, title and effective date. Forms 62-210.900(1),(3),(4) and (5), F.A.C., including instructions, are available from the Department as hard-copy documents or executable files on computer diskettes. Copies of forms (hard-copy or diskette) may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Notwithstanding the requirement of Rule 62-4.050(2), F.A.C., to file application forms in quadruplicate, if an air permit application is submitted using the Department's electronic application form, only one copy of the diskette and signature pages is required to be submitted.

(1) Application for Air Permit - Title V Source, Form and Instructions (Effective 02/11/1999).
  (a) Acid Rain Part (Phase II), Form and Instructions (Effective 04/16/2001).
    1. Repowering Extension Plan, Form and Instructions (Effective 07/01/1995).
    2. New Unit Exemption, Form and Instructions (Effective 04/16/2001).
    3. Retired Unit Exemption, Form and Instructions (Effective 04/16/2001).
    4. Phase II NOx Compliance Plan, Form and Instructions (Effective 01/06/1998).
    5. Phase II NOx Averaging Plan, Form (Effective 01/06/1998).
  (b) Reserved.

(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions (Effective 02/11/1999).

(7) Application for Transfer of Air Permit – Title V and Non-Title V Source, (Effective 04/16/2001).

[Rule 62-210.900, F.A.C.]

Chapter 62-213, F.A.C.

27. Annual Emissions Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, upon written notice from the Department, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

[Rules 62-213.205 and 62-213.900(1), F.A.C.]

28. Annual Emissions Fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.

[Rule 62-213.205(1)(g), F.A.C.]

29. Annual Emissions Fee. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.

[Rule 62-213.205(1)(i), F.A.C.]

30. Annual Emissions Fee. A completed DEP Form 62-213.900(1), F.A.C., "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by the responsible official with the annual emissions fee.

[Rule 62-213.205(1)(j), F.A.C.]

31. Air Operation Permit Fees. No permit application processing fee, renewal fee, modification fee or amendment fee is required for an operation permit for a Title V source.

[Rule 62-213.205(4), F.A.C.]

32. Permits and Permit Revisions Required. All Title V sources are subject to the permit requirements of Chapter 62-213, F.A.C.

(1) No Title V source may operate except in compliance with Chapter 62-213, F.A.C.

(2) Except as provided in Rule 62-213.410, F.A.C., no source with a permit issued under the provisions of this chapter shall make any changes in its operation without first applying for and receiving a permit revision if the change meets any of the following:
  (a) Constitutes a modification;
  (b) Violates any applicable requirement;
  (c) Exceeds the allowable emissions of any air pollutant from any unit within the source;
  (d) Contravenes any permit term or condition for monitoring, testing, recordkeeping, reporting or of a compliance certification requirement;
  (e) Requires a case-by-case determination of an emission limitation or other standard or a source specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapters 62-212 or 62-296, F.A.C.;
  (f) Violates a permit term or condition which the source has assumed for which there is no corresponding underlying applicable requirement to which the source would otherwise be subject;
  (g) Results in the trading of emissions among units within a source except as specifically authorized pursuant to Rule 62-213.415, F.A.C.;

(h) Results in the change of location of any relocatable facility identified as a Title V source pursuant to paragraph (a)-(e), (g) or (h) of the definition of "major source of air pollution" at Rule 62-210.200, F.A.C.;
(i) Constitutes a change at an Acid Rain Source under the provisions of 40 CFR 72.81(a)(1),(2),or (3),(b)(1) or (b)(3), hereby incorporated by reference;
(j) Constitutes a change in a repowering plan, nitrogen oxides averaging plan, or nitrogen oxides compliance deadline extension at an Acid Rain Source;
(k) Is a request for industrial-utility unit exemption pursuant to Rule 62-214.340, F.A.C.
[Rules 62-213.400(1) & (2), F.A.C.]

33. Changes Without Permit Revision. Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation in each alternative method of operation:
(1) Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
(2) Permitted sources may implement the terms or conditions of a new or revised construction permit if;
(a) The application for construction permit complied with the requirements of Rule 62-213.420(3) and (4), F.A.C.;
(b) The terms or conditions were subject to federally enforceable preconstruction review pursuant to Chapter 62-212, F.A.C.; and,
(c) The new or revised construction permit was issued after the Department and the applicant complied with all the requirements of Rule 62-213.430(1), F.A.C.;
(3) A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
(a) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
(b) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
(4) Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
[Rule 62-213.410, F.A.C.]

34. Immediate Implementation Pending Revision Process.
(1) Those permitted Title V sources making any change that constitutes a modification pursuant to the definition of modification at Rule 62-210.200, F.A.C., but which would not constitute a modification pursuant to 42 USC 7412(a) or to 40 CFR 52.01, 60.2, or 61.15, adopted and incorporated by reference at Rule 62-204.800, F.A.C., may implement such change prior to final issuance of a permit revision in accordance with this section, provided the change:
(a) Does not violate any applicable requirement;
(b) Does not contravene any permit term or condition for monitoring, testing, recordkeeping or reporting, or any compliance certification requirement;
(c) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
(d) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and which the source has assumed to avoid an applicable requirement to which the source would otherwise be subject including any federally enforceable emissions cap or federally enforceable alternative emissions limit.
(2) A Title V source may immediately implement such changes after they have been incorporated into the terms and conditions of a new or revised construction permit issued pursuant to Chapter 62-212, F.A.C., and after the source provides to EPA, the Department, each affected state and any approved local air program having geographic jurisdiction over the source, a copy of the source's application for operation permit revision. The Title V source may conform its application for construction permit to include all information required by Rule 62-213.420, F.A.C., in lieu of submitting separate application forms.

(3) The Department shall process the application for operation permit revision in accordance with the provisions of Chapter 62-213, F.A.C., except that the Department shall issue a draft permit revision or a determination to deny the revision within 60 days of receipt of a complete application for operation permit revision or, if the Title V source has submitted a construction permit application conforming to the requirements of Rule 62-213.420, F.A.C., the Department shall issue a draft permit or a determination to deny the revision at the same time the Department issues its determination on issuance or denial of the construction permit application. The Department shall not take final action until all the requirements of Rules 62-213.430(1)(a), (c), (d), and (e), F.A.C., have been complied with.
(4) Pending final action on the operation permit revision application, the source shall implement the changes in accordance with the terms and conditions of the source's new or revised construction permit.
(5) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes until after the Department takes final action to issue the operation permit revision.
(6) If the Department denies the source's application for operation permit revision, the source shall cease implementation of the proposed changes.
[Rule 62-213.412, F.A.C.]

35. Permit Applications.
(1) Duty to Apply. For each Title V source, the owner or operator shall submit a timely and complete permit application in compliance with the requirements of Rules 62-213.420, F.A.C., and Rules 62-4.050(1) through (3), F.A.C.

(a) Timely Application.

3. For purposes of permit renewal, a *timely application is one that is submitted in accordance with Rule 62-4.090, F.A.C.*

(b) Complete Application.

1. Any applicant for a Title V permit, permit revision or permit renewal must submit an application on DEP Form No. 62-210.900(1), which must include all the information specified by Rule 62-213.420(3), F.A.C., except that an application for permit revision must contain only that information related to the proposed change. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision or permit renewal shall be certified by a responsible official in accordance with Rule 62-213.420(4), F.A.C.
2. For those applicants submitting initial permit applications pursuant to Rule 62-213.420(1)(a)1., F.A.C., a complete application shall be an application that substantially addresses all the information required by the application form number 62-210.900(1), and such applications shall be deemed complete within sixty days of receipt of a signed and certified application unless the Department notifies the applicant of incompleteness within that time. For all other applicants, the applications shall be deemed complete sixty days after receipt, unless the Department, within sixty days after receipt of a signed application for permit, permit revision or permit renewal, requests additional documentation or information needed to process the application. An applicant making timely and complete application for permit, or timely application for permit renewal as described by Rule 62-4.090(1), F.A.C., shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of Rules 62-213.420(1)(b)3. and 4. F.A.C. Failure of the Department to request additional information within sixty days of receipt of a properly signed application shall not impair the Department's ability to request additional information pursuant to Rules 62-213.420(1)(b)3. and 4., F.A.C.
3. For those permit applications submitted pursuant to the provisions of Rule 62-213.420(1)(a)1., F.A.C., the Department shall notify the applicant if the Department becomes aware at any time during processing of the application that the application contains incorrect or incomplete information. The applicant shall submit the corrected or supplementary information to the Department within ninety days unless the applicant has requested and been granted additional time to submit the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days or such additional time as requested and granted shall render the application incomplete.
4. For all applications other than those addressed at Rule 62-213.420(1)(b)3., F.A.C., should the Department become aware, during processing of any application that the application contains incorrect information, or should the Department become aware, as a result of comment from an affected State, an approved local air program, EPA, or the public that additional information is needed to evaluate the application, the Department shall notify the applicant within 30 days. When an applicant becomes aware that an application contains incorrect or incomplete information, the applicant shall submit the corrected or supplementary information to the Department. If the Department notifies an applicant that corrected or supplementary information is necessary to process the permit, and requests a response, the applicant shall provide the information to the Department within ninety days of the Department request unless the applicant has requested

and been granted additional time to submit the information or, the applicant shall, within ninety days, submit a written request that the Department process the application without the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days, or such additional time as requested and granted, or to demand in writing within ninety days that the application be processed without the information shall render the application incomplete. Nothing in this section shall limit any other remedies available to the Department.

[Rules 62-213.420(1)(a)3. and 62-213.420(1)(b)1., 2., 3. & 4., F.A.C.]

36. Confidential Information. Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. **(also, see Condition No. 50.)**
[Rule 62-213.420(2), F.A.C.]

37. Standard Application Form and Required Information. Applications shall be submitted under Chapter 62-213, F.A.C., on forms provided by the Department and adopted by reference in Rule 62-210.900(1), F.A.C. The information as described in Rule 62-210.900(1), F.A.C., shall be included for the Title V source and each emissions unit. An application must include information sufficient to determine all applicable requirements for the Title V source and each emissions unit and to evaluate a fee amount pursuant to Rule 62-213.205, F.A.C.
[Rule 62-213.420(3), F.A.C.]

38. a. Permit Renewal and Expiration. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) and 62-213.420(3), F.A.C. Unless a Title V source submits a timely application for permit renewal in accordance with the requirements of Rule 62-4.090(1), F.A.C., the existing permit shall expire and the source's right to operate shall terminate. No Title V permit will be issued for a new term except through the renewal process.

b. Permit Revision Procedures. Permit revisions shall meet all requirements of Chapter 62-213, F.A.C., including those for content of applications, public participation, review by approved local programs and affected states, and review by EPA, as they apply to permit issuance and permit renewal, except that permit revisions for those activities implemented pursuant to Rule 62-213.412, F.A.C., need not meet the requirements of Rule 62-213.430(1)(b), F.A.C. The Department shall require permit revision in accordance with the provisions of Rule 62-4.080, F.A.C., and 40 CFR 70.7(f), whenever any source becomes subject to any condition listed at 40 CFR 70.7(f)(1), hereby adopted and incorporated by reference. The below requirements from 40 CFR 70.7(f) are adopted and incorporated by reference in Rule 62-213.430(4), F.A.C.:

o 40 CFR 70.7(f): Reopening for Cause. **(also, see Condition No. 4.)**

(1) This section contains provisions from 40 CFR 70.7(f) that specify the conditions under which a Title V permit shall be reopened prior to the expiration of the permit. A Title V permit shall be reopened and revised under any of the following circumstances:

(i) Additional applicable requirements under the Act become applicable to a major Part 70 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii).

(ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approved by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(iii) The permitting authority or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(iv) The Administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(2) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(3) Reopenings under 40 CFR 70.7(f)(1) shall not be initiated before a notice of such intent is provided to the Part 70 source by the permitting authority at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

[Rules 62-213.430(3) & (4), F.A.C.; and, 40 CFR 70.7(f)]

39. Insignificant Emissions Units or Pollutant-Emitting Activities.

(a) All requests for determination of insignificant emissions units or activities made pursuant to Rule 62-213.420(3)(m), F.A.C., shall be processed in conjunction with the permit, permit renewal or permit revision application submitted pursuant to Chapter 62-213, F.A.C. Insignificant emissions units or activities shall be approved by the Department consistent with the provisions of Rule 62-4.040(1)(b), F.A.C. Emissions units or activities which are added to a Title V source after issuance of a permit under Chapter 62-213, F.A.C., shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit and also qualify as insignificant pursuant to Rule 62-213.430(6), F.A.C.
(b) An emissions unit or activity shall be considered insignificant if all of the following criteria are met:

1. Such unit or activity would be subject to no unit-specific applicable requirement;
2. Such unit or activity, in combination with other units or activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s);
3. Such unit or activity would not emit or have the potential to emit:
    a. 500 pounds per year or more of lead and lead compounds expressed as lead;
    b. 1,000 pounds per year or more of any hazardous air pollutant;
    c. 2,500 pounds per year or more of total hazardous air pollutants; or
    d. 5.0 tons per year or more of any other regulated pollutant.

[Rule 62-213.430(6), F.A.C.]

40. Permit Duration. Permits for sources subject to the Federal Acid Rain Program shall be issued for terms of five years, provided that the initial Acid Rain Part may be issued for a term less than five years where necessary to coordinate the term of such part with the term of a Title V permit to be issued to the source. Operation permits for Title V sources may not be extended as provided in Rule 62-4.080(3), F.A.C., if such extension will result in a permit term greater than five years.
[Rule 62-213.440(1)(a), F.A.C.]

41. Monitoring Information. All records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses.
[Rule 62-213.440(1)(b)2.a., F.A.C.]

42. Retention of Records. Retention of records of all monitoring data and support information shall be for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
[Rule 62-213.440(1)(b)2.b., F.A.C.]

43. Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.
[Rule 62-213.440(1)(b)3.a., F.A.C.]

44. Deviation from Permit Requirements Reports. The permittee shall report in accordance with the requirements of Rules 62-210.700(6) and 62-4.130, F.A.C., deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.
[Rule 62-213.440(1)(b)3.b., F.A.C.]

45. Reports. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C.
[Rule 62-213.440(1)(b)3.c, F.A.C.]

46. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect.
[Rule 62-213.440(1)(d)1., F.A.C.]

47. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity.
[Rule 62-213.440(1)(d)3., F.A.C.]

48. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C.
[Rule 62-213.440(1)(d)4., F.A.C.]

49. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference.
[Rule 62-213.440(1)(d)5., F.A.C.]

50. Confidentiality Claims. Any permittee may claim confidentiality of any data or other information by complying with Rule 62-213.420(2), F.A.C. **(also, see Condition No. 36.)**.
[Rule 62-213.440(1)(d)6., F.A.C.]

51. Statement of Compliance. (a)2. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit using DEP Form No. 62-213.900(7). Such statements shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C. Such statement shall be submitted (postmarked) to the Department and EPA:

a. Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and

b. Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.

3. The statement of compliance status shall include all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C.

(b) The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

52. Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in Rule 62-213.460, F.A.C., or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program.
[Rule 62-213.460, F.A.C.]

53. Forms and Instructions. The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The form is listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by contacting the appropriate permitting authority.

(1) Major Air Pollution Source Annual Emissions Fee Form. (Effective 01/03/2001)

(7) Statement of Compliance Form. (Effective 01/03/2001)

[Rule 62-213.900, F.A.C.: Forms (1) and (7)]

Chapter 62-256, F.A.C.

54. **Not federally enforceable.** Open Burning. This permit does not authorize any open burning nor does it constitute any waiver of the requirements of Chapter 62-256, F.A.C. Source shall comply with Chapter 62-256, F.A.C., for any open burning at the source. [Chapter 62-256, F.A.C.]

Chapter 62-281, F.A.C.

55. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Rule 62-281.100, F.A.C. Those requirements include the following restrictions:
(1) Any facility having any refrigeration equipment normally containing 50 (fifty) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added pursuant to 40 CFR 82.166;
(2) No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided at 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved pursuant to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
(3) No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or Class II substance at 40 CFR 82, Subpart A, Appendices A and B, except in compliance with Rule 62-281.100, F.A.C., and 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
(4) No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or Class II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined at 40 CFR 82.152) for service, maintenance or repair unless the person has been properly trained and certified pursuant to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance pursuant to 40 CFR 82.158 and unless the person observes the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;
(5) No person may dispose of appliances (except small appliances, as defined at 40 CFR 82.152) without using equipment certified for that type of appliance pursuant to 40 CFR 82.158 and without observing the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;
(6) No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined at 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82, Subpart F.
[40 CFR 82; and, Chapter 62-281, F.A.C. (**Chapter 62-281, F.A.C., is not federally enforceable**)]

Chapter 62-296, F.A.C.

56. Industrial, Commercial, and Municipal Open Burning Prohibited. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:

(a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or,

(b) An emergency exists which requires immediate action to protect human health and safety; or,

(c) A county or municipality would use a portable air curtain incinerator to burn yard trash generated by a hurricane, tornado, fire or other disaster and the air curtain incinerator would otherwise be operated in accordance with the permitting exemption criteria of Rule 62-210.300(3), F.A.C.

[Rule 62-296.320(3), F.A.C.]

57. Unconfined Emissions of Particulate Matter.
(4)(c)1. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

3. Reasonable precautions include the following:

a. Paving and maintenance of roads, parking areas and yards.

b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.

e. Landscaping or planting of vegetation.

f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

g. Confining abrasive blasting where possible.

h. Enclosure or covering of conveyor systems.

4. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rules 62-296.320(4)(c)1., 3., & 4. F.A.C.]

[electronic file name: tv-4.doc]

APPENDIX L

Electronic Version of Title V Permit Application


SWA
SOLID WASTE AUTHORITY
Air Construction
Permit and Title V
Air Operation Permit
Application
October 2003
CDM
consulting · engineering · construction · operations