POST, BUCKLEY, SCHUH & JERNIGAN, INC.

ENGINEERING
PLANNING

D.E.R.

MAR 12 1997

SOUTHWEST DISTRICT
TAMPA

March 11, 1997

Mr. Bill Thomas, Air Administrator
Southwest District
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33691-8218

RE: Title V Operating Permit Application
Sarasota County Central County Solid Waste Disposal Complex

Dear Mr. Thomas:

The Sarasota County Central County Solid Waste Disposal Complex (CCSWDC) is permitted to accept 1,420 tons per day of municipal solid waste for 39 years (Permit Number SC58-214931), and is currently under construction. Operations are planned to begin on January 6, 1998. Since its design capacity exceeds the 2.5 million megagrams, and construction began after May 30, 1991, 40 CFR 60 Subpart WWW requires that a Title V operating permit application be prepared for the facility. In accordance with 62-204.800(7)(b), F.A.C., the Title V operating permit application is being submitted by the due date of March 12, 1997.

The emissions inventory conducted for the Title V permit application is based on the facility's potential to emit. According to equations provided by the EPA "Compilation of Air Emission Estimation Factors" (AP-42), maximum emissions will occur in the year of landfill closure. Therefore, the emission calculations were based on the year of landfill closure. Literature-based emission factors were used in these calculations.

The attached permit application is being submitted by Sarasota County to obtain a Title V Operations Permit for the CCSWDC. This application is being submitted with four (4) copies of a 3.5-inch computer diskette for electronic submission using FDEP's Electronic Submission of Application (ELSA) software. In addition, four (4) hard copies are also provided to include all signature pages, figures, attachments and other supplemental information. If FDEP detects a discrepancy between the hard copy and the information on the diskette, Sarasota County requests that FDEP assume that the hard copy contains the correct information.

If you have any questions or comments please feel free to call me at (301) 464-5700.

Sincerely,

Linda M. Nutting

Linda Nutting
Project Manager, PBS&J

for:
David Bullock, Director
Sarasota County Solid Waste Department

c: Pete Putman, PBS&J Sarasota
Kim B. Ford, P.E., FDEP Tampa

PBSJ

TITLE V OPERATING PERMIT APPLICATION

SARASOTA COUNTY CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX

Prepared by
Post, Buckley, Schuh & Jernigan, Inc.
4201 Northview Drive, Suite 302
Bowie, MD 20762

Project Number 12-428.XX

March 11, 1997

Prepared for
Sarasota County Board of County Commissioners
1660 Ringling Blvd.
Sarasota, Florida 34236

TABLE OF CONTENTS

LIST OF APPENDICES

Title V Operating Permit Application

Supplemental Information
Sarasota County Central County Solid Waste Disposal Complex

This application is being submitted by Sarasota County, Florida to obtain a Title V Operation Permit for the Central County Solid Waste Disposal Complex (CCSWDC). This application is being submitted to the Division of Air Resources Management, Florida Department of Environmental Protection (FDEP) on four copies of a 3.5-inch computer diskette for electronic submission using FDEP's Electronic Submission of Application (ELSA) software. In addition, four (4) hard copies are also provided to include all signature pages, figures, attachments and other supplemental information. If FDEP detects a discrepancy between the hard copy and the information on the diskette, Sarasota County requests that FDEP assume that the hard copy contains the correct information.

The following sections provide a description of the CCSWDC. The descriptions are presented as a supplement to the application to enhance the reader's understanding of the information presented in the application.

FACILITY DESCRIPTION

The Sarasota County Central County Solid Waste Disposal Complex (CCSWDC) is located at 4000 Knights Trail Road in the city of Nokomis, Sarasota County, Florida. The CCSWDC is currently under construction and plans to begin operations on January 6, 1998. A site plan is included in Appendix B.

EMISSION UNITS

Based on the emission inventory analysis, the CCSWDC will have four (4) principal emission units: 1) the future landfill gas collection and flaring system; 2) the uncollected emissions from the Class I disposal area (landfill); 3) roads (paved and unpaved) and earth moving operations (daily cover and borrow operations); and 4) yard waste composting facility. Those emission units exempt from Title V permitting requirements (e.g., leachate storage tanks and C&D debris recycling facility) are addressed in the permit application in Appendix C.

Landfill Gas Collection and Flaring System

Although Sarasota County plans to have active collection and control of the landfill gas, currently there are no design plans for the system. Forty CFR 60 Subpart WWW requires MSW landfills constructed after May 30, 1991, and with a design capacity greater than or equal to 2.5 million Mg or 2.5 million cubic meters, to submit annual non-methane organic compound (NMOC) emission rate reports. Those landfills with NMOC emissions greater than or equal to 50 Mg per year as reported in the annual reports are required to submit design plans for a landfill gas collection and control

system within 12 months of submitting the NMOC emission rate report indicating NMOC emissions greater than or equal to 50 Mg/yr. Certain design criteria specified in 40 CFR 60 Subpart WWW must be met in the system design plans. The collection and control system must then be installed within 18 months of submitting the design plans as long as the system is installed in areas containing waste at least 5 years old for active areas, or at least 2 years old for closed areas. Sarasota County plans to submit landfill gas collection and control system design plans within 12 months of the submittal of the NMOC emission rate report which exceeds the threshold. Preliminary NMOC emission rate calculations based on the permitted refuse acceptance rate of 1,420 tons per day indicate that the second annual NMOC emission rate report will exceed the 50 Mg/yr threshold.

Because the emissions included in this Title V permit application are based on the landfill's potential to emit, the emission calculations are based on the year of maximum emissions, which is the year of landfill closure. As described above, a landfill gas collection and control system is planned for installation and operation before the year of landfill closure. It is assumed that the system will consist of an active landfill gas collection system and enclosed flares. Therefore, the emissions calculations are based on the assumption that an active landfill gas collection system and enclosed flares will be installed and operational in the year of landfill closure.

Appendix H includes the emissions calculations for the enclosed flares. Assumptions used in these calculations were based on typical enclosed flare operational conditions provided by a manufacturer of enclosed flares.

Uncollected Emissions from the Class I Disposal Area

Although Sarasota County plans to have a landfill gas collection and control system installed, gas collection systems are not considered 100 percent efficient in collecting landfill gas. Emissions of methane (CH_4) and NMOC at the landfill surface still occur with a gas recovery system. To estimate the emissions of CH_4, NMOC and other constituents in landfill gas emitted at the surface, the collection efficiency of the system is assumed to be 75%, as suggested in the EPA's "Compilation of Air Pollutant Emission Factors" (AP-42). Therefore, a remaining 25% is assumed to be uncollected and is addressed in the permit application as an emission unit.

Appendix H includes the emissions calculations for the Class I disposal area. AP-42 emission factors were used to estimate these emissions.

Roads and Earth Moving Operations

Roads are a source of particulate matter pollution when vehicles travel them and disturb the road surface. Particulate matter is regulated both as total particulate matter (PM) and as particulate matter less than 10 microns in diameter (PM-10). Particulates from roads are considered fugitive emissions in accordance with State regulations, and therefore were not considered in determining whether the emission unit(s) is a Title V source. However, the PM and PM-10 emissions have been included in the emission inventory.

Particulate matter emissions result from earth moving operations, such as moving borrow and performing daily and final cover operations. Particulates from earth moving operations are also considered fugitive emissions in accordance in the State regulations, and therefore were not considered in determining whether the emission unit(s) is a Title V source. The PM and PM-10 emissions have been accounted for in the emission inventory.

Appendix I includes the emissions calculations for the unpaved roads, paved roads, and earth moving operations. AP-42 emission factors were used to estimate these emissions.

Yard Waste Composting Facility

Yard waste will be composted in a maximum of 70 windrows, each approximately 300 feet long, 10 feet high, and 25 feet wide. As yard waste decomposes, organic compounds in the waste are expected to volatilize and emit as fugitive emissions. Specifically, the yard waste composting activities may potentially emit volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). Appendix J includes the emissions calculations for the yard waste composting facility.

TITLE V FACILITY STATUS

Because the facility is a municipal solid waste landfill with a design capacity greater than 2.5 million Mg and it is being constructed after May 30, 1991, the facility is a Title V source pursuant to 40 CFR 60 Subpart WWW. The emissions inventory indicates that the facility will not have the estimated potential to emit pollutants in excess of the major thresholds given in 62-213.420(3)(c)1, F.A.C., and therefore would not be considered a "major source".

PERMIT SHIELD

Pursuant to 62-213.460, F.A.C., compliance with the terms and conditions of the Title V permit, applied for in this application, shall be deemed in compliance with applicable requirements included in this application (Appendix A). Thus, a permit shield is requested.

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 : Sarasota Co. Board of County Commisioner
2. Site Name : Central Co. Solid Waste Disposal Complex
3. Facility Identification Number : [X] Unknown
4. Facility Location : Central County Solid Waste Disposal Complex, Sarasota County Street Address or Other Locator : 4000 Knights Trail Road City : Nokomis County : Sarasota Zip Code : 34275-
5. Relocatable Facility? [ ] Yes [X] No 6. Existing Permitted Facility? [ ] Yes [X] No

Owner/Authorized Representative or Responsible Official

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

   Name: David Bullock
   Title: Solid Waste Director

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

   Organization/Firm: Sarasota County Solid Waste Department
   Street Address: 1660 Ringling Blvd.
   City: Sarasota
   State: FL Zip Code: 34236-_____

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

   Telephone: (941)364-4400 Fax: (941)316-7361

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 Environment 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.*

D R. Bullock
Signature

3-11-97
Date

* Attach letter of authorization if not currently on file.

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

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
Unknown	Landfill Gas Flares	AF2C
Unknown	Uncollected Active Area of the Landfill	AF2C
Unknown	Roads and Earth Moving Operations	AF2C
Unknown	Yard Waste Composting	AF2C

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.

[X] 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 :

[ ] 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 :

Operation permit to be revised :

[ ] 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 :

[ ] 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 :

[ ] 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 : _____ [X] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations : Municipal Solid Waste Landfill
2. Projected or Actual Date of Commencement of Construction : 01-Oct-1995
3. Projected Date of Completion of Construction : 31-Dec-1997

Professional Engineer Certification

1. Professional Engineer Name : Charles P. Putman Registration Number : 35217
2. Professional Engineer Mailing Address : Organization/Firm : Post, Buckley, Schuh and Jernigan, Street Address : 330 S. Pineapple Ave. City : Sarasota State : FL Zip Code : 34236-____
3. Professional Engineer Telephone Numbers : Telephone : (941)954-4036 Fax : (941)951-1477

4. Professional Engineer Statement :

I, the undersigned, hereby certified, 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 [ ] 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

3/1/97
Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :

Name : David Bullock
Title : Solid Waste Director

2. Application Contact Mailing Address :

Organization/Firm : Sarasota Co. Solid Waste Department
Street Address : 1660 Ringling Blvd.
City : Sarasota
State : FL Zip Code : 34236-

3. Application Contact Telephone Numbers :

Telephone : (941)364-4400 Fax : (941)316-7361

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility, Location, and Type

1. Facility UTM Coordinates : Zone : 17 East (km) : 362.97 North (km) : 3009.13			
2. Facility Latitude/Longitude : Latitude (DD/MM/SS) : 27 12 Longitude (DD/MM/SS) : 82 23			
3. Governmental Facility Code : 3	4. Facility Status Code : C	5. Facility Major Group SIC Code : 49	6. Facility SIC(s) : 4953
7. Facility Comment : Not Applicable			

Facility Contact

1. Name and Title of Facility Contact : David Bullock Solid Waste Director
2. Facility Contact Mailing Address : Organization/Firm : Sarasota Co. Solid Waste Department Street Address : 1660 Ringling Blvd. City : Sarasota State : FL Zip Code : 34236-____
3. Facility Contact Telephone Numbers : Telephone : (941)364-4400 Fax : (941)316-7361

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)?	N
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	N
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?	N
10. Title V Source by EPA Designation?	Y
11. Facility Regulatory Classifications Comment : The landfill is subject to NSPS 40 CFR 60 Subpart WWW	

B. FACILITY REGULATIONS

Rule Applicability Analysis

Not Applicable

B. FACILITY REGULATIONS

List of Applicable Regulations

Refer to Appendix A (Table A-1)

C. FACILITY POLLUTANTS

Facility Pollutant Information

Not Applicable

D. FACILITY POLLUTANT DETAIL INFORMATION

Not Applicable

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

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

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities :	Appendix C
8. List of Equipment/Activities Regulated under Title VI :	NA
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions Trading) :	NA
11. Identification of Additional Applicable Requirements :	NA
12. Compliance Assurance Monitoring Plan :	NA
13. Risk Management Plan Verification :	NA
14. Compliance Report and Plan :	Appendix D
15. Compliance Certification (Hard-copy Required) :	Appendix E

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 1

Landfill Gas Flares

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

Uncollected Active Area of the Landfill

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 :

[ ] 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).

[X] 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

Roads and Earth Moving Operations

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

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

[X] 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 :

[ ] 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.

[X] 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 4

Yard Waste Composting

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

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

[X] 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 :

[ ] 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.

[X] 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 : Landfill Gas Flares		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [X] 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 : Combustion efficiency of the flares for each compound is taken from manufacturer's data for enclosed flares.		

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 : Uncollected Active Area of the Landfill		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [X] 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 : Landfill gas collection systems are not 100% efficient in collecting landfill gas, so emissions of CH4 and NMOC at a landfill with a gas recovery system still occur. The collection efficiency of the collection system is assumed to be 75%, with 25% as uncollected.		

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 : Roads and Earth Moving Operations		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [X] 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 : There are 0.5 miles of unpaved roads and 7.0 of Paved roads.		

Emissions Unit Information Section 4

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : Yard Waste Composting		
2. Emissions Unit Identification Number : [ ] No Corresponding ID [X] 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 : Yard waste will be shredded and placed in windrows to be composted.		

Emissions Unit Information Section 1
Landfill Gas Flares

Emissions Unit Control Equipment 1

1. Description : Not applicable
2. Control Device or Method Code :

Emissions Unit Information Section 2
Uncollected Active Area of the Landfill

Emissions Unit Control Equipment 1

1. Description : Not Applicable
2. Control Device or Method Code :

Emissions Unit Information Section 3
Roads and Earth Moving Operations

Emissions Unit Control Equipment 1

1. Description : Not applicable
2. Control Device or Method Code :

Emissions Unit Information Section 4
Yard Waste Composting

Emissions Unit Control Equipment 1

1. Description : Not Applicable
2. Control Device or Method Code :

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

Emissions Unit Information Section 1
Landfill Gas Flares

Emissions Unit Details

1. Initial Startup Date :	
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : Not Applicable	Model Number : Not Applicable
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 :	140	mmBtu/hr	
2. Maximum Incinerator Rate :		lb/hr	tons/day
3. Maximum Process or Throughput Rate :	22744	pounds per hour	
4. Maximum Production Rate :			
5. Operating Capacity Comment : Reflects capacity for all flares. Initial start-up date based on 40 CFR 60 Subpart WWW.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,736 hours/year

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

Emissions Unit Information Section 2
Uncollected Active Area of the Landfill

Emissions Unit Details

1. Initial Startup Date :	06-Jan-1998
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : Not applicable	Model Number : Not applicable
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 :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :		
4. Maximum Production Rate :		
5. Operating Capacity Comment : Permitted refuse acceptance rate = 1420 tons per day.		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,736 hours/year

C. EMISSIONS UNIT DETAIL INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Roads and Earth Moving operations

Emission Unit Details

Not Applicable

C. EMISSIONS UNIT DETAIL INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 4

Yard Waste Composting

Emission Unit Details

Not Applicable

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
Landfill Gas Flares

Rule Applicability Analysis

Not applicable

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
Uncollected Active Area of the Landfill

Rule Applicability Analysis

Not Applicable

D. EMISSIONS UNIT REGULATIONS

(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Emission Unit Details

Not Applicable

D. EMISSIONS UNIT REGULATIONS

(Regulated Emissions Units Only)

Emissions Unit Information Section 4

Yard Waste Composting

Emission Unit Details

Not Applicable

Emissions Unit Information Section 1
Landfill Gas Flares

List of Applicable Regulations

Refer to Appendix A (Table A-2)

Emissions Unit Information Section 2
Uncollected Active Area of the Landfill

List of Applicable Regulations

Refer to Appendix A (Table A-3)

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

Landfill Gas Flares

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Refer to Appendix B	
2. Emission Point Type Code :	3	
3. Descriptions of Emission Points Comprising this Emissions Unit : Assume 3 flares will be used for all collected landfill gas. Collection system not yet designed.		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : Not applicable		
5. Discharge Type Code :	V	
6. Stack Height :	25	feet
7. Exit Diameter :	4.00	feet
8. Exit Temperature :	1,600	°F
9. Actual Volumetric Flow Rate :	4,675	acfm
10. Percent Water Vapor :		%
11. Maximum Dry Standard Flow Rate :		dscfm
12. Nonstack Emission Point Height :		feet
13. Emission Point UTM Coordinates : Zone : / East (km) : / North (km) :		
14. Emission Point Comment :		

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 2

Uncollected Active Area of the Landfill

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Refer to Appendix B
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit : Not applicable	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common : Not applicable	
5. Discharge Type Code :	P
6. Stack Height :	feet
7. Exit Diameter :	feet
8. Exit Temperature :	77 °F
9. Actual Volumetric Flow Rate :	acfm
10. Percent Water Vapor :	%
11. Maximum Dry Standard Flow Rate :	dscfm
12. Nonstack Emission Point Height :	0 feet
13. Emission Point UTM Coordinates : Zone : 17 East (km) : 362.970 North (km) : 3,009.130	
14. Emission Point Comment :	

E. EMISSIONS POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Not Applicable

E. EMISSIONS POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 4

Yard Waste Composting

Not Applicable

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

Landfill Gas Flares

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Landfill Gas	
2. Source Classification Code (SCC) : 5-01-004-10	
3. SCC Units : Million Cubic Feet Burned (all gaseous fuels)	
4. Maximum Hourly Rate : 0.28	5. Maximum Annual Rate : 2,456.19
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 490	
10. Segment Comment : Expected as-fired heat value of methane is 980 BTU/cu. ft. Assuming landfill gas to be 50% methane the heat value is 490 BTU/cu.ft.	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

Uncollected Active Area of the Landfill

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Uncollected landfill gas	
2. Source Classification Code (SCC) : 5-02-006-02	
3. SCC Units : Million Cubic Feet Produced or Manufactured	
4. Maximum Hourly Rate : 0.09	5. Maximum Annual Rate : 818.73
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Not applicable	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Not applicable	
2. Source Classification Code (SCC) :	
3. SCC Units :	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Not applicable	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 4

Yard Waste Composting

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Not applicable	
2. Source Classification Code (SCC) :	
3. SCC Units :	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : Not applicable	

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

Emissions Unit Information Section 1
Landfill Gas Flares

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO			NS
2 - NOX			NS

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

Emissions Unit Information Section 2
Uncollected Active Area of the Landfill

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - CO			NS
2 - VOC			NS
3 - HAPS			NS
4 - H009			NS
5 - H104			NS
6 - H120			NS
7 - H128			NS
8 - H167			NS
9 - H169			NS
10 - H186			NS

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

Emissions Unit Information Section 3
Roads and Earth Moving Operations

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM			NS
2 - PM10			NS

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

Emissions Unit Information Section 4
Yard Waste Composting

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - H120			NS
2 - H085			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1

Landfill Gas Flares

Pollutant Potential/Estimated:

Not Applicable

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

Uncollected Active Area of the Landfill

Pollutant Potential/Estimated:

Not Applicable

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Pollutant Potential/Estimated:

Not Applicable

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 4

Yard Waste Composting

Pollutant Potential/Estimated:

Not Applicable

I. VISIBLE EMISSIONS INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 1

Landfill Gas Flares

Visible Emissions Limitations:

Not Applicable

I. VISIBLE EMISSIONS INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 2

Uncollected Active Area of the Landfill

Visible Emissions Limitations:

Not Applicable

I. VISIBLE EMISSIONS INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Visible Emissions Limitations:

Not Applicable

I. VISIBLE EMISSIONS INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 4

Yard Waste Composting

Visible Emissions Limitations:

Not Applicable

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 1

Landfill Gas Flares

Not Applicable

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 2

Uncollected Active Area of the landfill

Not Applicable

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3

Roads and Earth Moving Operations

Not Applicable

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 4

Yard Waste Composting

Not Applicable

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

Emissions Unit Information Section 1

Landfill Gas Flares

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 :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

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

Emissions Unit Information Section 2

Uncollected Active Area of the Landfill

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 :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Not Applicable		

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

Emissions Unit Information Section 3

Roads and Earth Moving Operations

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 :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Not Applicable		

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

Emissions Unit Information Section 4

Yard Waste Composting

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 :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Not Applicable		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

Landfill Gas Flares

Supplemental Requirements for All Applications

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

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

Uncollected Active Area of the Landfill

Supplemental Requirements for All Applications

1. Process Flow Diagram :	NA
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
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

Roads and Earth Moving Operations

Not Applicable

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 4

Yard Waste Composting

Not Applicable

APPENDIX A

APPLICABLE REGULATIONS

TABLE A-1

Facility-Wide Applicable Requirements
Central County Solid Waste Complex

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Project: Sarasota County: Central County Solid Waste Complex

Date: 3/04/97

Comp. by: L. Racz

Chk. by: J. Wood

Federal

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 51, Subpart I	New Source Review		New MSW landfils in non-attainment areas must submit a plan adopting a preconstruction review program to meet requirements of the Clean Air Act		
40 CFR 52, Subpart A	Prevention of Significant Deterioration		New MSW landfills which emit or have the potential to emit 250 tons per year of any air pollutant subject to regulation under the Clean Air Act		
40 CFR 60, Subpart WWW	Standards of Performance for New Stationary Sources	X	MSW landfill with a capacity of 2.5 MM Mg or more that was constructed after May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must submit a collection and control system design plan within 1 year and install system within 18 months of plan submittal.	X	Submitting initial design capacity report and annual NMOC emission rate reports. See Appendix G.
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed before May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must install a collection and control system within 30 months.		
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAP)		Provides emissions standards for certain HAPs.		
40 CFR 61, Subpart M	National Emission Standard for Asbestos	X	Provides emission standards for asbestos.	X	Asbestos waste to be contained by daily cover.

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 82, Subpart B	Servicing of Motor Vehicle Air Conditioners (MVAC)	X	Applies to any person performing service on motor vehicle air conditioners.	X	Will certify employee training and equipment compliance. Will maintain records.
40 CFR 82, Subpart F	Recycling and Emissions Reduction	X	Purpose is to reduce emissions of class I and class II refrigerants.	X	Will certify equipment compliance.

State

Chapter 62-4, F.A.C.	Permits				
62-4.030, F.A.C.	General Prohibition	X	Stationary sources of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate permits.	X	Obtaining permits.
62-4.040, F.A.C.	Exemptions	X	Provides exemptions from permit requirements for certain structural changes and installations.	X	
62-4.050, F.A.C.	Procedure to Obtain Permits; Application	X	Outlines permit application fees and procedures.	X	Will submit application fee in accordance with schedule.
62-4.060, F.A.C.	Consultation	X	Applicants are encouraged to consult with Department personnel before submitting an application, or at any other time concerning pollution control devices.	X	Consulting with Department concerning questions about permit and regulations.
62-4.070, F.A.C.	Standards for Issuing or Denying Permits; Issuance; Denial	X	Provides standards for issuing or denying permits.	X	
62-4.080, F.A.C.	Modification of Permit Conditions	X	Provides standards for modifying permit conditions.	X	
62-4.090, F.A.C.	Renewals	X	Gives times by which permit renewal applications must be submitted.	X	
62-4.100, F.A.C.	Suspension and Revocation	X	Provides standards for permit suspension and revocation.	X	

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-4.110, F.A.C.	Financial Responsibility	X	Applicant may be required to submit proof of financial responsibility.	X	Will submit proof if required.
62-4.120, F.A.C.	Transfer of Permits	X	Provides guidelines for transfer of permits.	X	
62-4.130, F.A.C.	Plant Operation - Problems	X	Department shall be notified if permittee is unable to comply with any of the permit conditions.	X	
62-4.150, F.A.C.	Review	X	Hearing requests must be made within 14 days of receipt of notice of agency action on a permit application.	X	
62-4.160, F.A.C.	Permit Conditions	X	Provides general conditions for all permits.	X	
62-4.210, F.A.C.	Construction Permits	X	Provides requirements for construction permits.	X	See Appendix D.
62-4.220, F.A.C.	Operation Permit for New Sources	X	Applicant must submit fee and certification that construction was completed for an operation permit for new sources.	X	Plans to submit fee and submit certification of construction
Chapter 62-103, F.A.C.	**Rules of Administrative Procedure**				
62-103.150, F.A.C.	Public Notice of Application and Proposed Agency Action	X	Applicant must publish a Notice of Application in a newspaper within 14 days after a complete application is filed.	X	Public notice filed when solid waste permit application filed.
62-103.155, F.A.C.	Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding	X	Gives guidelines for petitioning administrative hearings on Department actions.	X	
Chapter 62-204, F.A.C.	**Air Pollution Control General Provisions**				
62-204.800(7)(b), F.A.C.	40 CFR 60 Subpart WWW (NSPS for MSW Landfills) adopted by reference	X	MSW landfill subject to NSPS must submit a Title V operating permit application by March 12, 1997 or 180 days after the issuance of the solid waste permit.	X	Submitting operating permit application.

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-204.800(8)(c), F.A.C.	40 CFR 60 Subpart Cc (EG for MSW Landfills) adopted by reference		MSW landfill subject to EG must submit a Title V operating permit application by December 31, 1997. Initial design capacity report and NMOC report due December 31, 1996.		
Chapter 62-210, F.A.C.	**Stationary Sources - Requirements**				
62-210.300, F.A.C.	Permits Required	X	The owners or operators of any emissions unit must obtain the appropriate permits.	X	Obtaining permits.
62-210.300(1), F.A.C.	Air Construction Permits	X	Air construction permits of any proposed new or modified facility or emissions unit must be obtained prior to beginning of construction or modification.	X	See Appendix D.
62-210.300(2), F.A.C.	Air Operation Permits		The owner or operator must obtain an air operation permit for any existing facility or emissions unit.		
62-210.300(3)(a), F.A.C.	Full Exemptions	X	Gives conditions for full exemptions from permitting requirements.	X	
62-210.300(3)(b), F.A.C.	Temporary Exemption	X	Certain air emission units described in a Title V permit application and not subject to an existing air permit shall be exempt from permitting requirements until a final determination on a Title V permit application is made.	X	
62-210.300(5), F.A.C.	Notification of Startup		The owner or operator of a facility or emissions unit that has been shut down for more than one year shall notify the Department of intent to start up.		

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-210.300(6), F.A.C.	Emissions Unit Reclassification		Any emissions unit whose operation permit has been revoked shall be deemed permanently shut down.		
62-210.350, F.A.C.	Public Notice and Comment	X	Gives public notice requirements for application of permits.	X	
62-210.350(3), F.A.C.	Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources	X	Gives additional public notice requirements.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-210.360, F.A.C.	Administrative Permit Corrections	X	The facility owner shall notify the Department of minor corrections to information contained in a permit.	X	
62-210.370(3), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility	X	The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year.	X	
62-210.650, F.A.C.	Circumvention	X	No person shall circumvent any air pollution control device.	X	
62-210.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Completing and submitting forms.
62-210.900(1), F.A.C.	Application for Air Permit - Long Form, Form and Instructions	X	Lists the Application for Air Permit - Long Form, Form and Instructions.	X	Completing form according to instructions.
62-210.900(5), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	Lists the Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	
Chapter 62-212, FAC	**Stationary Sources - Preconstruction Review**				
62-212.300, F.A.C	General Preconstruction Review Requirements	X	Applies to the proposed construction or modification of all emission units and facilities for which an air construction permit is required.	X	See Appendix D.

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-212.400, F.A.C.	Prevention of Significant Deterioration		Applies to the proposed construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.		Facility not identified on Table 212.400-1 and has the potential to emit <250 tpy of pollutants.
Chapter 62-213, F.A.C.	**Operation Permits for Major Sources of Air Pollution**				
62-213.205, F.A.C.	Annual Emissions Fee	X	Each permitted Title V source must pay an annual emissions fee. Establishes emissions fees.	X	Plans to pay fees.
62-213.400, F.A.C.	Permits and Permit Revisions Required	X	No Title V source may operate without a valid operation permit.	X	Obtaining permits.
62-213.410, F.A.C.	Changes Without Permit Revision	X	Lists operational changes Title V sources may make without permit revision.	X	
62-213.412, F.A.C.	Immediate Implementation Pending Revision Process	X	Lists certain changes Title V sources may make prior to final issuance of a permit revision.	X	
62-213.420, F.A.C.	Permit Applications	X	Outlines deadlines and requirements for Title V source permit applications (June 15, 1996).	X	Submitting permit application according to regulation.
62-213.430, F.A.C.	Permit Issuance, Renewal, and Revision	X	Gives standards for issuing, renewing, and revising permit.	X	
62-213.440, F.A.C.	Permit Content	X	Establishes standard permit content requirements.	X	
62-213.460, F.A.C.	Permit Shield	X	Compliance with the terms and conditions of a permit shall be deemed compliance with any applicable requirements included in the permit application.	X	Including applicable regulations.

TABLE A-1
Facility-Wide Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-213.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Will complete and submit forms according to instructions.
62-213.900(1), F.A.C.	Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions	X	Lists the Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.	X	Plans to complete and submit form.
Chapter 62-256, F.A.C.	Open Burning and Frost Protection Fires		Regulates open burning and outdoor heating devices.		
Chapter 62-257, F.A.C.	Asbestos Notification and Fee		Regulates asbestos removal.		
Chapter 62-281, F.A.C.	Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling	X	Regulates motor vehicle air conditioning refrigerant recovery and recycling.	X	Will submit initial notification of compliance to FDEP.
Chapter 62-296, F.A.C.	**Stationary Sources - Emission Standards**				
62-296.320(2), F.A.C.	Objectionable Odor Prohibited	X	No person shall permit discharge of pollutants which cause or contribute to an objectionable odor.	X	Employing standard practice to control odors.
62-296.320(3), F.A.C.	Industrial, Commercial, and Municipal Open Burning Prohibited	X	Open burning in connection with industrial, commercial, or municipal operations is prohibited.	X	
62-296.320(4)(c), F.A.C.	Unconfined Emissions of Particulate Matter	X	No person shall allow emissions of unconfined particulate matter without taking reasonable precautions to prevent such emissions.	X	Refer to Appendix D and E.

TABLE A-2

Landfill Gas Flares Applicable Requirements

Central County Solid Waste Complex

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Project: Sarasota County: Central County Solid Waste Complex

Date: 3/04/97

Comp. by: L. Racz

Chk. by: J. Wood

Federal

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 51, Subpart I	New Source Review		New MSW landfils in non-attainment areas must submit a plan adopting a preconstruction review program to meet requirements of the Clean Air Act		
40 CFR 52, Subpart A	Prevention of Significant Deterioration		New MSW landfills which emit or have the potential to emit 250 tons per year of any air pollutant subject to regulation under the Clean Air Act		
40 CFR 60, Subpart WWW	Standards of Performance for New Stationary Sources	X	New, modified or reconstructed MSW landfills with NMOC emissions of >50 Mg/yr must submit a collection and control system design plan to reduce NMOC emissions within 1 year and install system within 18 months of plan submittal.	X	Will submit design plans for a collection and control system when NMOC emissions <50 Mg/yr. See Appendix G.
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		Existing MSW landfills with NMOC emissions of >50 Mg/yr must install a collection and control system to reduce NMOC emissions within 30 months.		
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAP)		Provides emissions standards for certain HAPs.		
40 CFR 61, Subpart M	National Emission Standard for Asbestos		Provides emission standards for asbestos.		

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

State

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
Chapter 62-4, F.A.C.	**Permits**				
62-4.030, F.A.C.	General Prohibition	X	Stationary sources of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate permits.	X	Obtaining permits.
62-4.040, F.A.C.	Exemptions	X	Provides exemptions from permit requirements for certain structural changes and installations.	X	
62-4.050, F.A.C.	Procedure to Obtain Permits; Application	X	Outlines permit application fees and procedures.	X	Will submit application fee in accordance with schedule.
62-4.060, F.A.C.	Consultation	X	Applicants are encouraged to consult with Department personnel before submitting an application, or at any other time concerning pollution control devices.	X	Consulting with Department concerning questions about permit and regulations.
62-4.070, F.A.C.	Standards for Issuing or Denying Permits; Issuance; Denial	X	Provides standards for issuing or denying permits.	X	
62-4.080, F.A.C.	Modification of Permit Conditions	X	Provides standards for modifying permit conditions.	X	
62-4.090, F.A.C.	Renewals	X	Gives times by which permit renewal applications must be submitted.	X	
62-4.100, F.A.C.	Suspension and Revocation	X	Provides standards for permit suspension and revocation.	X	

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-4.110, F.A.C.	Financial Responsibility	X	Applicant may be required to submit proof of financial responsibility.	X	Will submit proof if required.
62-4.120, F.A.C.	Transfer of Permits	X	Provides guidelines for transfer of permits.	X	
62-4.130, F.A.C.	Plant Operation - Problems	X	Department shall be notified if permittee is unable to comply with any of the permit conditions.	X	
62-4.150, F.A.C.	Review	X	Hearing requests must be made within 14 days of receipt of notice of agency action on a permit application.	X	
62-4.160, F.A.C.	Permit Conditions	X	Provides general conditions for all permits.	X	
62-4.210, F.A.C.	Construction Permits	X	Provides requirements for construction permits.	X	See Appendix D.
62-4.220, F.A.C.	Operation Permit for New Sources	X	Applicant must submit fee and certification that construction was completed for an operation permit for new sources.	X	Plans to submit fee and submit certification of construction
Chapter 62-103, F.A.C.	**Rules of Administrative Procedure**				
62-103.150, F.A.C.	Public Notice of Application and Proposed Agency Action	X	Applicant must publish a Notice of Application in a newspaper within 14 days after a complete application is filed.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-103.155, F.A.C.	Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding	X	Gives guidelines for petitioning administrative hearings on Department actions.	X	
Chapter 62-204, F.A.C.	**Air Pollution Control General Provisions**				
62-204.800(7)(b), F.A.C.	40 CFR 60 Subpart WWW (NSPS for MSW Landfills) adopted by reference	X	MSW landfill subject to NSPS must submit a Title V operating permit application by March 12, 1997 or 180 days after the issuance of the solid waste permit.	X	Submitting operating permit application.

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-204.800(8)(c), F.A.C.	40 CFR 60 Subpart Cc (EG for MSW Landfills) adopted by reference		MSW landfill subject to EG must submit a Title V operating permit application by December 31, 1997. Initial design capacity report and NMOC report due December 31, 1996.		
Chapter 62-210, F.A.C.	**Stationary Sources - Requirements**				
62-210.300, F.A.C.	Permits Required	X	The owners or operators of any emissions unit must obtain the appropriate permits.	X	Obtaining permits.
62-210.300(1), F.A.C.	Air Construction Permits	X	Air construction permits of any proposed new or modified facility or emissions unit must be obtained prior to beginning of construction or modification.	X	See Appendix D.
62-210.300(2), F.A.C.	Air Operation Permits		The owner or operator must obtain an air operation permit for any existing facility or emissions unit.		
62-210.300(3), F.A.C.	Exemptions	X		X	
62-210.300(3)(a), F.A.C.	Full Exemptions	X	Gives conditions for full exemptions from permitting requirements.	X	
62-210.300(3)(b), F.A.C.	Temporary Exemption	X	Certain air emission units described in a Title V permit application and not subject to an existing air permit shall be exempt from permitting requirements until a final determination on a Title V permit application is made.	X	
62-210.300(5), F.A.C.	Notification of Startup		The owner or operator of a facility or emissions unit that has been shut down for more than one year shall notify the Department of intent to start up.		

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-210.300(6), F.A.C.	Emissions Unit Reclassification		Any emissions unit whose operation permit has been revoked shall be deemed permanently shut down.		
62-210.350, F.A.C.	Public Notice and Comment	X	Gives public notice requirements for application of permits.	X	
62-210.350(3), F.A.C.	Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources	X	Gives additional public notice requirements.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-210.360, F.A.C.	Administrative Permit Corrections	X	The facility owner shall notify the Department of minor corrections to information contained in a permit.	X	
62-210.370(3), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility	X	The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year.	X	
62-210.650, F.A.C.	Circumvention	X	No person shall circumvent any air pollution control device.	X	
62-210.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Completing and submitting forms.
62-210.900(1), F.A.C.	Application for Air Permit - Long Form, Form and Instructions	X	Lists the Application for Air Permit - Long Form, Form and Instructions.	X	Completing form according to instructions.
62-210.900(5), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	Lists the Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	
Chapter 62-212, FAC	**Stationary Sources - Preconstruction Review**				
62-212.300, F.A.C	General Preconstruction Review Requirements	X	Applies to the proposed construction or modification of all emission units and facilities for which an air construction permit is required.	X	See Appendix D.

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-212.400, F.A.C.	Prevention of Significant Deterioration		Applies to the proposed construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.		Flares will emit <250 tpy of pollutants.
Chapter 62-213, F.A.C.	**Operation Permits for Major Sources of Air Pollution**				
62-213.205, F.A.C.	Annual Emissions Fee	X	Each permitted Title V source must pay an annual emissions fee. Establishes emissions fees.	X	Plans to pay fees.
62-213.400, F.A.C.	Permits and Permit Revisions Required	X	No Title V source may operate without a valid operation permit.	X	Obtaining permits.
62-213.410, F.A.C.	Changes Without Permit Revision	X	Lists operational changes Title V sources may make without permit revision.	X	
62-213.412, F.A.C.	Immediate Implementation Pending Revision Process	X	Lists certain changes Title V sources may make prior to final issuance of a permit revision.	X	
62-213.420, F.A.C.	Permit Applications	X	Outlines deadlines and requirements for Title V source permit applications (June 15, 1996).	X	Submitting permit application according to regulation.
62-213.430, F.A.C.	Permit Issuance, Renewal, and Revision	X	Gives standards for issuing, renewing, and revising permit.	X	
62-213.440, F.A.C.	Permit Content	X	Establishes standard permit content requirements.	X	
62-213.460, F.A.C.	Permit Shield	X	Compliance with the terms and conditions of a permit shall be deemed compliance with any applicable requirements included in the permit application.	X	Including applicable regulations.

TABLE A-2
Landfill Gas Flares Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-213.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Will complete and submit forms according to instructions.
62-213.900(1), F.A.C.	Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions	X	Lists the Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.	X	Plans to complete and submit form.
Chapter 62-296, F.A.C.	**Stationary Sources - Emission Standards**				
62-296.320(2), F.A.C.	Objectionable Odor Prohibited	X	No person shall permit discharge of pollutants which cause or contribute to an objectionable odor.	X	Employing standard practice to control odors.
62-296.320(3), F.A.C.	Industrial, Commercial, and Municipal Open Burning Prohibited		Open burning in connection with industrial, commercial, or municipal operations is prohibited.		
62-296.320(4)(c), F.A.C.	Unconfined Emissions of Particulate Matter		No person shall allow emissions of unconfined particulate matter without taking reasonable precautions to prevent such emissions.		

TABLE A-3

Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Project: Sarasota County: Central County Solid Waste Complex

Date: 3/04/97

Comp. by: L. Racz

Chk. by: J. Wood

Federal

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 51, Subpart I	New Source Review		New MSW landfils in non-attainment areas must submit a plan adopting a preconstruction review program to meet requirements of the Clean Air Act		
40 CFR 52, Subpart A	Prevention of Significant Deterioration		New MSW landfills which emit or have the potential to emit 250 tons per year of any air pollutant subject to regulation under the Clean Air Act		
40 CFR 60, Subpart WWW	Standards of Performance for New Stationary Sources	X	MSW landfill with a capacity of 2.5 MM Mg or more that was constructed after May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must submit a collection and control system design plan within 1 year and install system within 18 months of plan submittal.	X	Submitting initial design capacity report and annual NMOC emission rate reports.
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed before May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must install a collection and control system within 30 months.		
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAP)		Provides emissions standards for certain HAPs.		
40 CFR 61, Subpart M	National Emission Standard for Asbestos	X	Provides emission standards for asbestos.	X	Asbestos waste to be contained by daily cover.

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

State

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
Chapter 62-4, F.A.C.	**Permits**				
62-4.030, F.A.C.	General Prohibition	X	Stationary sources of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate permits.	X	Obtaining permits.
62-4.040, F.A.C.	Exemptions	X	Provides exemptions from permit requirements for certain structural changes and installations.	X	
62-4.050, F.A.C.	Procedure to Obtain Permits; Application	X	Outlines permit application fees and procedures.	X	Will submit application fee in accordance with schedule.
62-4.060, F.A.C.	Consultation	X	Applicants are encouraged to consult with Department personnel before submitting an application, or at any other time concerning pollution control devices.	X	Consulting with Department concerning questions about permit and regulations.
62-4.070, F.A.C.	Standards for Issuing or Denying Permits; Issuance; Denial	X	Provides standards for issuing or denying permits.	X	
62-4.080, F.A.C.	Modification of Permit Conditions	X	Provides standards for modifying permit conditions.	X	
62-4.090, F.A.C.	Renewals	X	Gives times by which permit renewal applications must be submitted.	X	
62-4.100, F.A.C.	Suspension and Revocation	X	Provides standards for permit suspension and revocation.	X	

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-4.110, F.A.C.	Financial Responsibility	X	Applicant may be required to submit proof of financial responsibility.	X	Will submit proof if required.
62-4.120, F.A.C.	Transfer of Permits	X	Provides guidelines for transfer of permits.	X	
62-4.130, F.A.C.	Plant Operation - Problems	X	Department shall be notified if permittee is unable to comply with any of the permit conditions.	X	
62-4.150, F.A.C.	Review	X	Hearing requests must be made within 14 days of receipt of notice of agency action on a permit application.	X	
62-4.160, F.A.C.	Permit Conditions	X	Provides general conditions for all permits.	X	
62-4.210, F.A.C.	Construction Permits	X	Provides requirements for construction permits.	X	See Appendix D.
62-4.220, F.A.C.	Operation Permit for New Sources	X	Applicant must submit fee and certification that construction was completed for an operation permit for new sources.	X	Plans to submit fee and submit certification of construction
Chapter 62-103, F.A.C.	**Rules of Administrative Procedure**				
62-103.150, F.A.C.	Public Notice of Application and Proposed Agency Action	X	Applicant must publish a Notice of Application in a newspaper within 14 days after a complete application is filed.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-103.155, F.A.C.	Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding	X	Gives guidelines for petitioning administrative hearings on Department actions.	X	
Chapter 62-204, F.A.C.	**Air Pollution Control General Provisions**				
62-204.800(7)(b), F.A.C.	40 CFR 60 Subpart WWW (NSPS for MSW Landfills) adopted by reference	X	MSW landfill subject to NSPS must submit a Title V operating permit application by March 12, 1997 or 180 days after the issuance of the solid waste permit.	X	Submitting operating permit application.

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-204.800(8)(c), F.A.C.	40 CFR 60 Subpart Cc (EG for MSW Landfills) adopted by reference		MSW landfill subject to EG must submit a Title V operating permit application by December 31, 1997. Initial design capacity report and NMOC report due December 31, 1996.		
Chapter 62-210, F.A.C.	**Stationary Sources - Requirements**				
62-210.300, F.A.C.	Permits Required	X	The owners or operators of any emissions unit must obtain the appropriate permits.	X	Obtaining permits.
62-210.300(1), F.A.C.	Air Construction Permits	X	Air construction permits of any proposed new or modified facility or emissions unit must be obtained prior to beginning of construction or modification.	X	See Appendix D.
62-210.300(2), F.A.C.	Air Operation Permits		The owner or operator must obtain an air operation permit for any existing facility or emissions unit.		
62-210.300(3), F.A.C.	Exemptions	X		X	
62-210.300(3)(a), F.A.C.	Full Exemptions	X	Gives conditions for full exemptions from permitting requirements.	X	
62-210.300(3)(b), F.A.C.	Temporary Exemption	X	Certain air emission units described in a Title V permit application and not subject to an existing air permit shall be exempt from permitting requirements until a final determination on a Title V permit application is made.	X	
62-210.300(5), F.A.C.	Notification of Startup		The owner or operator of a facility or emissions unit that has been shut down for more than one year shall notify the Department of intent to start up.		

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-210.300(6), F.A.C.	Emissions Unit Reclassification		Any emissions unit whose operation permit has been revoked shall be deemed permanently shut down.		
62-210.350, F.A.C.	Public Notice and Comment	X	Gives public notice requirements for application of permits.	X	
62-210.350(3), F.A.C.	Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources	X	Gives additional public notice requirements.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-210.360, F.A.C.	Administrative Permit Corrections	X	The facility owner shall notify the Department of minor corrections to information contained in a permit.	X	
62-210.370(3), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility	X	The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year.	X	
62-210.650, F.A.C.	Circumvention	X	No person shall circumvent any air pollution control device.	X	
62-210.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Completing and submitting forms.
62-210.900(1), F.A.C.	Application for Air Permit - Long Form, Form and Instructions	X	Lists the Application for Air Permit - Long Form, Form and Instructions.	X	Completing form according to instructions.
62-210.900(5), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	Lists the Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	
Chapter 62-212, FAC	**Stationary Sources - Preconstruction Review**				
62-212.300, F.A.C	General Preconstruction Review Requirements	X	Applies to the proposed construction or modification of all emission units and facilities for which an air construction permit is required.	X	See Appendix D.

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-212.400, F.A.C.	Prevention of Significant Deterioration		Applies to the proposed construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.		Landfill not identified on Table 212.400-1 and emits less than 250 tpy pollutants.
Chapter 62-213, F.A.C.	**Operation Permits for Major Sources of Air Pollution**				
62-213.205, F.A.C.	Annual Emissions Fee	X	Each permitted Title V source must pay an annual emissions fee. Establishes emissions fees.	X	Plans to pay fees.
62-213.400, F.A.C.	Permits and Permit Revisions Required	X	No Title V source may operate without a valid operation permit.	X	Obtaining permits.
62-213.410, F.A.C.	Changes Without Permit Revision	X	Lists operational changes Title V sources may make without permit revision.	X	
62-213.412, F.A.C.	Immediate Implementation Pending Revision Process	X	Lists certain changes Title V sources may make prior to final issuance of a permit revision.	X	
62-213.420, F.A.C.	Permit Applications	X	Outlines deadlines and requirements for Title V source permit applications (June 15, 1996).	X	Submitting permit application according to regulation.
62-213.430, F.A.C.	Permit Issuance, Renewal, and Revision	X	Gives standards for issuing, renewing, and revising permit.	X	
62-213.440, F.A.C.	Permit Content	X	Establishes standard permit content requirements.	X	
62-213.460, F.A.C.	Permit Shield	X	Compliance with the terms and conditions of a permit shall be deemed compliance with any applicable requirements included in the permit application.	X	Including applicable regulations.

TABLE A-3
Uncollected Landfill Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-213.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Will complete and submit forms according to instructions.
62-213.900(1), F.A.C.	Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions	X	Lists the Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.	X	Plans to complete and submit form.
Chapter 62-256, F.A.C.	Open Burning and Frost Protection Fires		Regulates open burning and outdoor heating devices.		
Chapter 62-257, F.A.C.	Asbestos Notification and Fee		Regulates asbestos removal.		
Chapter 62-296, F.A.C.	**Stationary Sources - Emission Standards**				
62-296.320(2), F.A.C.	Objectionable Odor Prohibited	X	No person shall permit discharge of pollutants which cause or contribute to an objectionable odor.	X	Employing standard practice to control odors.
62-296.320(3), F.A.C.	Industrial, Commercial, and Municipal Open Burning Prohibited		Open burning in connection with industrial, commercial, or municipal operations is prohibited.		
62-296.320(4)(c), F.A.C.	Unconfined Emissions of Particulate Matter		No person shall allow emissions of unconfined particulate matter without taking reasonable precautions to prevent such emissions.		

TABLE A-4

Roads and Earth Moving Operations Applicable Requirements

Central County Solid Waste Complex

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Project: Sarasota County: Central County Solid Waste Complex

Date: 3/04/97

Comp. by: L. Racz

Chk. by: J. Wood

Federal

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 51, Subpart I	New Source Review		New MSW landfils in non-attainment areas must submit a plan adopting a preconstruction review program to meet requirements of the Clean Air Act		
40 CFR 52, Subpart A	Prevention of Significant Deterioration		New MSW landfills which emit or have the potential to emit 250 tons per year of any air pollutant subject to regulation under the Clean Air Act		
40 CFR 60, Subpart WWW	Standards of Performance for New Stationary Sources		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed after May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must submit a collection and control system design plan within 1 year and install system within 18 months of plan submittal.		
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed before May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must install a collection and control system within 30 months.		

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

State

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
Chapter 62-4, F.A.C.	**Permits**				
62-4.030, F.A.C.	General Prohibition	X	Stationary sources of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate permits.	X	Obtaining permits.
62-4.040, F.A.C.	Exemptions	X	Provides exemptions from permit requirements for certain structural changes and installations.	X	
62-4.050, F.A.C.	Procedure to Obtain Permits; Application	X	Outlines permit application fees and procedures.	X	Will submit application fee in accordance with schedule.
62-4.060, F.A.C.	Consultation	X	Applicants are encouraged to consult with Department personnel before submitting an application, or at any other time concerning pollution control devices.	X	Consulting with Department concerning questions about permit and regulations.
62-4.070, F.A.C.	Standards for Issuing or Denying Permits; Issuance; Denial	X	Provides standards for issuing or denying permits.	X	
62-4.080, F.A.C.	Modification of Permit Conditions	X	Provides standards for modifying permit conditions.	X	
62-4.090, F.A.C.	Renewals	X	Gives times by which permit renewal applications must be submitted.	X	
62-4.100, F.A.C.	Suspension and Revocation	X	Provides standards for permit suspension and revocation.	X	

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-4.110, F.A.C.	Financial Responsibility	X	Applicant may be required to submit proof of financial responsibility.	X	Will submit proof if required.
62-4.120, F.A.C.	Transfer of Permits	X	Provides guidelines for transfer of permits.	X	
62-4.130, F.A.C.	Plant Operation - Problems	X	Department shall be notified if permittee is unable to comply with any of the permit conditions.	X	
62-4.150, F.A.C.	Review	X	Hearing requests must be made within 14 days of receipt of notice of agency action on a permit application.	X	
62-4.160, F.A.C.	Permit Conditions	X	Provides general conditions for all permits.	X	
62-4.210, F.A.C.	Construction Permits	X	Provides requirements for construction permits.	X	See Appendix D.
62-4.220, F.A.C.	Operation Permit for New Sources	X	Applicant must submit fee and certification that construction was completed for an operation permit for new sources.	X	Plans to submit fee and submit certification of construction
Chapter 62-103, F.A.C.	**Rules of Administrative Procedure**				
62-103.150, F.A.C.	Public Notice of Application and Proposed Agency Action	X	Applicant must publish a Notice of Application in a newspaper within 14 days after a complete application is filed.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-103.155, F.A.C.	Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding	X	Gives guidelines for petitioning administrative hearings on Department actions.	X	
Chapter 62-204, F.A.C.	**Air Pollution Control General Provisions**				
62-204.800(7)(b), F.A.C.	40 CFR 60 Subpart WWW (NSPS for MSW Landfills) adopted by reference		MSW landfill subject to NSPS must submit a Title V operating permit application by March 12, 1997 or 180 days after the issuance of the solid waste permit.		

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-204.800(8)(c), F.A.C.	40 CFR 60 Subpart Cc (EG for MSW Landfills) adopted by reference		MSW landfill subject to EG must submit a Title V operating permit application by December 31, 1997. Initial design capacity report and NMOC report due December 31, 1996.		
Chapter 62-210, F.A.C.	**Stationary Sources - Requirements**				
62-210.300, F.A.C.	Permits Required	X	The owners or operators of any emissions unit must obtain the appropriate permits.	X	Obtaining permits.
62-210.300(1), F.A.C.	Air Construction Permits	X	Air construction permits of any proposed new or modified facility or emissions unit must be obtained prior to beginning of construction or modification.	X	See Appendix D.
62-210.300(2), F.A.C.	Air Operation Permits		The owner or operator must obtain an air operation permit for any existing facility or emissions unit.		
62-210.300(3), F.A.C.	Exemptions	X		X	
62-210.300(3)(a), F.A.C.	Full Exemptions	X	Gives conditions for full exemptions from permitting requirements.	X	
62-210.300(3)(b), F.A.C.	Temporary Exemption	X	Certain air emission units described in a Title V permit application and not subject to an existing air permit shall be exempt from permitting requirements until a final determination on a Title V permit application is made.	X	
62-210.300(5), F.A.C.	Notification of Startup		The owner or operator of a facility or emissions unit that has been shut down for more than one year shall notify the Department of intent to start up.		

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-210.300(6), F.A.C.	Emissions Unit Reclassification		Any emissions unit whose operation permit has been revoked shall be deemed permanently shut down.		
62-210.350, F.A.C.	Public Notice and Comment	X	Gives public notice requirements for application of permits.	X	
62-210.350(3), F.A.C.	Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources	X	Gives additional public notice requirements.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-210.360, F.A.C.	Administrative Permit Corrections	X	The facility owner shall notify the Department of minor corrections to information contained in a permit.	X	
62-210.370(3), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility	X	The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year.	X	
62-210.650, F.A.C.	Circumvention	X	No person shall circumvent any air pollution control device.	X	
62-210.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Completing and submitting forms.
62-210.900(1), F.A.C.	Application for Air Permit - Long Form, Form and Instructions	X	Lists the Application for Air Permit - Long Form, Form and Instructions.	X	Completing form according to instructions.
62-210.900(5), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	Lists the Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	
Chapter 62-212, FAC	**Stationary Sources - Preconstruction Review**				
62-212.300, F.A.C	General Preconstruction Review Requirements	X	Applies to the proposed construction or modification of all emission units and facilities for which an air construction permit is required.	X	See Appendix D.

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-212.400, F.A.C.	Prevention of Significant Deterioration		Applies to the proposed construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.		Landfill not identified on Table 212.400-1 and emits less than 250 tpy pollutants.
Chapter 62-213, F.A.C.	**Operation Permits for Major Sources of Air Pollution**				
62-213.205, F.A.C.	Annual Emissions Fee	X	Each permitted Title V source must pay an annual emissions fee. Establishes emissions fees.	X	Plans to pay fees.
62-213.400, F.A.C.	Permits and Permit Revisions Required	X	No Title V source may operate without a valid operation permit.	X	Obtaining permits.
62-213.410, F.A.C.	Changes Without Permit Revision	X	Lists operational changes Title V sources may make without permit revision.	X	
62-213.412, F.A.C.	Immediate Implementation Pending Revision Process	X	Lists certain changes Title V sources may make prior to final issuance of a permit revision.	X	
62-213.420, F.A.C.	Permit Applications	X	Outlines deadlines and requirements for Title V source permit applications (June 15, 1996).	X	Submitting permit application according to regulation.
62-213.430, F.A.C.	Permit Issuance, Renewal, and Revision	X	Gives standards for issuing, renewing, and revising permit.	X	
62-213.440, F.A.C.	Permit Content	X	Establishes standard permit content requirements.	X	
62-213.460, F.A.C.	Permit Shield	X	Compliance with the terms and conditions of a permit shall be deemed compliance with any applicable requirements included in the permit application.	X	Including applicable regulations.

TABLE A-4
Roads and Earth Moving Operations Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-213.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Will complete and submit forms according to instructions.
62-213.900(1), F.A.C.	Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions	X	Lists the Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.	X	Plans to complete and submit form.
Chapter 62-296, F.A.C.	**Stationary Sources - Emission Standards**				
62-296.320(2), F.A.C.	Objectionable Odor Prohibited		No person shall permit discharge of pollutants which cause or contribute to an objectionable odor.		
62-296.320(3), F.A.C.	Industrial, Commercial, and Municipal Open Burning Prohibited		Open burning in connection with industrial, commercial, or municipal operations is prohibited.		
62-296.320(4)(c), F.A.C.	Unconfined Emissions of Particulate Matter	X	No person shall allow emissions of unconfined particulate matter without taking reasonable precautions to prevent such emissions.	X	See Appendix D and E.

TABLE A-5

Yard Waste Composting Area Applicable Requirements

Central County Solid Waste Complex

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

Project: Sarasota County: Central County Solid Waste Complex — Date: 2/28/97

Comp. by: L. Racz — Chk. by: J. Wood

Federal

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
40 CFR 51, Subpart I	New Source Review		New MSW landfils in non-attainment areas must submit a plan adopting a preconstruction review program to meet requirements of the Clean Air Act		
40 CFR 52, Subpart A	Prevention of Significant Deterioration		New MSW landfills which emit or have the potential to emit 250 tons per year of any air pollutant subject to regulation under the Clean Air Act		
40 CFR 60, Subpart WWW	Standards of Performance for New Stationary Sources		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed after May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must submit a collection and control system design plan within 1 year and install system within 18 months of plan submittal.		
40 CFR 60, Subpart Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		MSW landfill with a capacity of 2.5 MM Mg or more that was constructed before May 30, 1991 and has NMOC emissions of 50 Mg/yr or more must install a collection and control system within 30 months.		
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAP)		Provides emissions standards for certain HAPs.		
40 CFR 61, Subpart M	National Emission Standard for Asbestos		Provides emission standards for asbestos.		

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

State

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
Chapter 62-4, F.A.C.	**Permits**				
62-4.030, F.A.C.	General Prohibition	X	Stationary sources of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate permits.	X	Obtaining permits.
62-4.040, F.A.C.	Exemptions	X	Provides exemptions from permit requirements for certain structural changes and installations.	X	
62-4.050, F.A.C.	Procedure to Obtain Permits; Application	X	Outlines permit application fees and procedures.	X	Will submit application fee in accordance with schedule.
62-4.060, F.A.C.	Consultation	X	Applicants are encouraged to consult with Department personnel before submitting an application, or at any other time concerning pollution control devices.	X	Consulting with Department concerning questions about permit and regulations.
62-4.070, F.A.C.	Standards for Issuing or Denying Permits; Issuance; Denial	X	Provides standards for issuing or denying permits.	X	
62-4.080, F.A.C.	Modification of Permit Conditions	X	Provides standards for modifying permit conditions.	X	
62-4.090, F.A.C.	Renewals	X	Gives times by which permit renewal applications must be submitted.	X	
62-4.100, F.A.C.	Suspension and Revocation	X	Provides standards for permit suspension and revocation.	X	

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-4.110, F.A.C.	Financial Responsibility	X	Applicant may be required to submit proof of financial responsibility.	X	Will submit proof if required.
62-4.120, F.A.C.	Transfer of Permits	X	Provides guidelines for transfer of permits.	X	
62-4.130, F.A.C.	Plant Operation - Problems	X	Department shall be notified if permittee is unable to comply with any of the permit conditions.	X	
62-4.150, F.A.C.	Review	X	Hearing requests must be made within 14 days of receipt of notice of agency action on a permit application.	X	
62-4.160, F.A.C.	Permit Conditions	X	Provides general conditions for all permits.	X	
62-4.210, F.A.C.	Construction Permits	X	Provides requirements for construction permits.	X	See Appendix D.
62-4.220, F.A.C.	Operation Permit for New Sources	X	Applicant must submit fee and certification that construction was completed for an operation permit for new sources.	X	Plans to submit fee and submit certification of construction
Chapter 62-103, F.A.C.	**Rules of Administrative Procedure**				
62-103.150, F.A.C.	Public Notice of Application and Proposed Agency Action	X	Applicant must publish a Notice of Application in a newspaper within 14 days after a complete application is filed.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-103.155, F.A.C.	Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding	X	Gives guidelines for petitioning administrative hearings on Department actions.	X	
Chapter 62-204, F.A.C.	**Air Pollution Control General Provisions**				
62-204.800(7)(b), F.A.C.	40 CFR 60 Subpart WWW (NSPS for MSW Landfills) adopted by reference		MSW landfill subject to NSPS must submit a Title V operating permit application by March 12, 1997 or 180 days after the issuance of the solid waste permit.		

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-204.800(8)(c), F.A.C.	40 CFR 60 Subpart Cc (EG for MSW Landfills) adopted by reference		MSW landfill subject to EG must submit a Title V operating permit application by December 31, 1997. Initial design capacity report and NMOC report due December 31, 1996.		
Chapter 62-210, F.A.C.	**Stationary Sources - Requirements**				
62-210.300, F.A.C.	Permits Required	X	The owners or operators of any emissions unit must obtain the appropriate permits.	X	Obtaining permits.
62-210.300(1), F.A.C.	Air Construction Permits	X	Air construction permits of any proposed new or modified facility or emissions unit must be obtained prior to beginning of construction or modification.	X	See Appendix D.
62-210.300(2), F.A.C.	Air Operation Permits		The owner or operator must obtain an air operation permit for any existing facility or emissions unit.		
62-210.300(3), F.A.C.	Exemptions	X		X	
62-210.300(3)(a), F.A.C.	Full Exemptions	X	Gives conditions for full exemptions from permitting requirements.	X	
62-210.300(3)(b), F.A.C.	Temporary Exemption	X	Certain air emission units described in a Title V permit application and not subject to an existing air permit shall be exempt from permitting requirements until a final determination on a Title V permit application is made.	X	
62-210.300(5), F.A.C.	Notification of Startup		The owner or operator of a facility or emissions unit that has been shut down for more than one year shall notify the Department of intent to start up.		

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-210.300(6), F.A.C.	Emissions Unit Reclassification		Any emissions unit whose operation permit has been revoked shall be deemed permanently shut down.		
62-210.350, F.A.C.	Public Notice and Comment	X	Gives public notice requirements for application of permits.	X	
62-210.350(3), F.A.C.	Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources	X	Gives additional public notice requirements.	X	Plans to publish public notice when FDEP notifies issuance of permit.
62-210.360, F.A.C.	Administrative Permit Corrections	X	The facility owner shall notify the Department of minor corrections to information contained in a permit.	X	
62-210.370(3), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility	X	The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year.	X	
62-210.650, F.A.C.	Circumvention	X	No person shall circumvent any air pollution control device.	X	
62-210.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Completing and submitting forms.
62-210.900(1), F.A.C.	Application for Air Permit - Long Form, Form and Instructions	X	Lists the Application for Air Permit - Long Form, Form and Instructions.	X	Completing form according to instructions.
62-210.900(5), F.A.C.	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	Lists the Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions	X	
Chapter 62-212, FAC	**Stationary Sources - Preconstruction Review**				
62-212.300, F.A.C	General Preconstruction Review Requirements	X	Applies to the proposed construction or modification of all emission units and facilities for which an air construction permit is required.	X	See Appendix D.

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

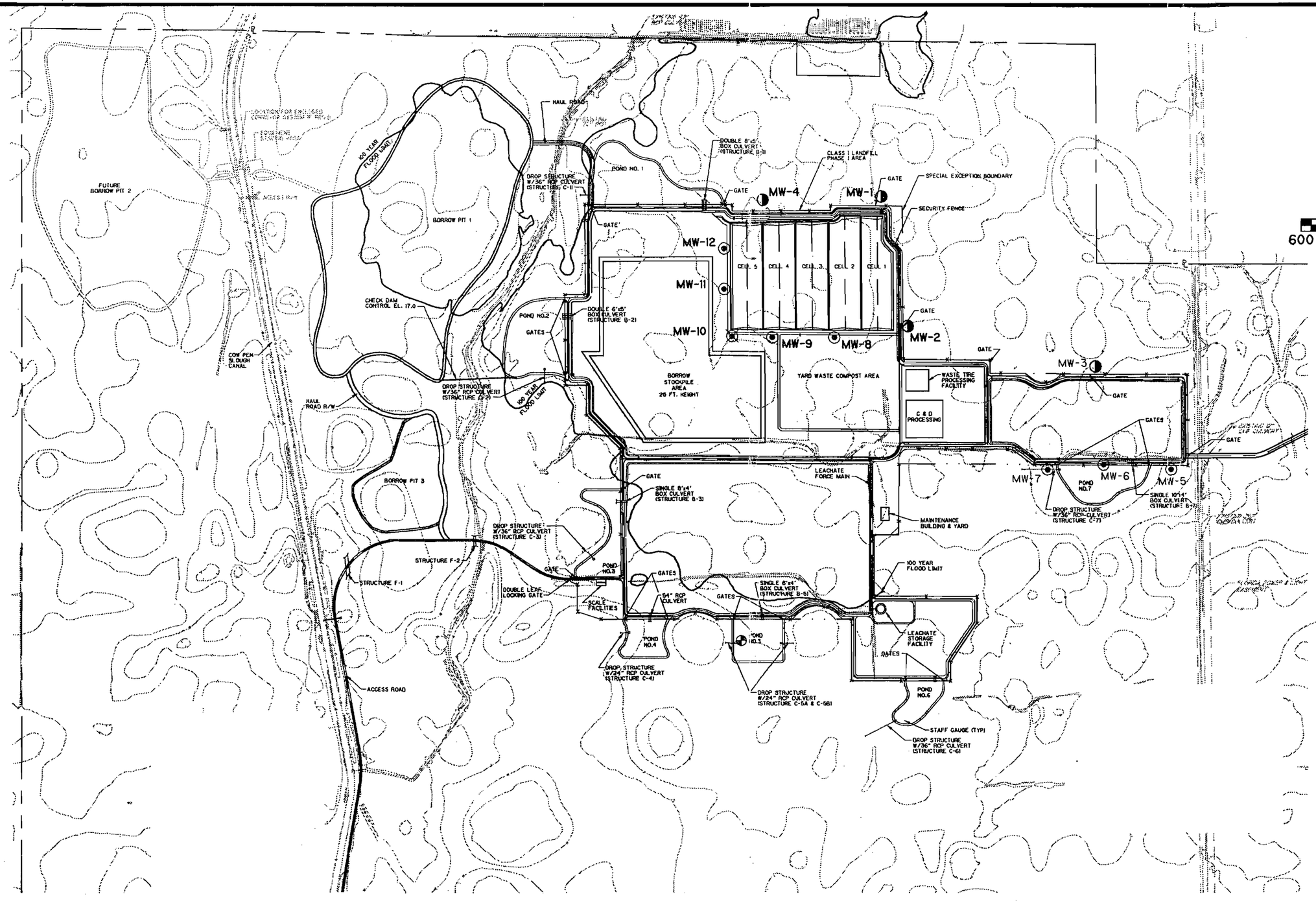
Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-212.400, F.A.C.	Prevention of Significant Deterioration		Applies to the proposed construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.		Compost facility not identified on Table 212.400-1 and emits less than 250 tpy pollutants.
Chapter 62-213, F.A.C.	**Operation Permits for Major Sources of Air Pollution**				
62-213.205, F.A.C.	Annual Emissions Fee	X	Each permitted Title V source must pay an annual emissions fee. Establishes emissions fees.	X	Plans to pay fees.
62-213.400, F.A.C.	Permits and Permit Revisions Required	X	No Title V source may operate without a valid operation permit.	X	Obtaining permits.
62-213.410, F.A.C.	Changes Without Permit Revision	X	Lists operational changes Title V sources may make without permit revision.	X	
62-213.412, F.A.C.	Immediate Implementation Pending Revision Process	X	Lists certain changes Title V sources may make prior to final issuance of a permit revision.	X	
62-213.420, F.A.C.	Permit Applications	X	Outlines deadlines and requirements for Title V source permit applications (June 15, 1996).	X	Submitting permit application according to regulation.
62-213.430, F.A.C.	Permit Issuance, Renewal, and Revision	X	Gives standards for issuing, renewing, and revising permit.	X	
62-213.440, F.A.C.	Permit Content	X	Establishes standard permit content requirements.	X	
62-213.460, F.A.C.	Permit Shield	X	Compliance with the terms and conditions of a permit shall be deemed compliance with any applicable requirements included in the permit application.	X	Including applicable regulations.

TABLE A-5
Yard Waste Composting Area Applicable Requirements
Central County Solid Waste Complex

Reference	Description	Applicable (X)	Summary	Complying (X)	Action/Comments
62-213.900, F.A.C.	Forms and Instructions	X	Forms used by the Department are adopted and incorporated by reference.	X	Will complete and submit forms according to instructions.
62-213.900(1), F.A.C.	Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions	X	Lists the Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.	X	Plans to complete and submit form.
Chapter 62-296, F.A.C.	**Stationary Sources - Emission Standards**				
62-296.320(2), F.A.C.	Objectionable Odor Prohibited	X	No person shall permit discharge of pollutants which cause or contribute to an objectionable odor.	X	Employing standard practice to control odors.
62-296.320(3), F.A.C.	Industrial, Commercial, and Municipal Open Burning Prohibited		Open burning in connection with industrial, commercial, or municipal operations is prohibited.		
62-296.320(4)(c), F.A.C.	Unconfined Emissions of Particulate Matter		No person shall allow emissions of unconfined particulate matter without taking reasonable precautions to prevent such emissions.		

APPENDIX B

SITE DRAWINGS



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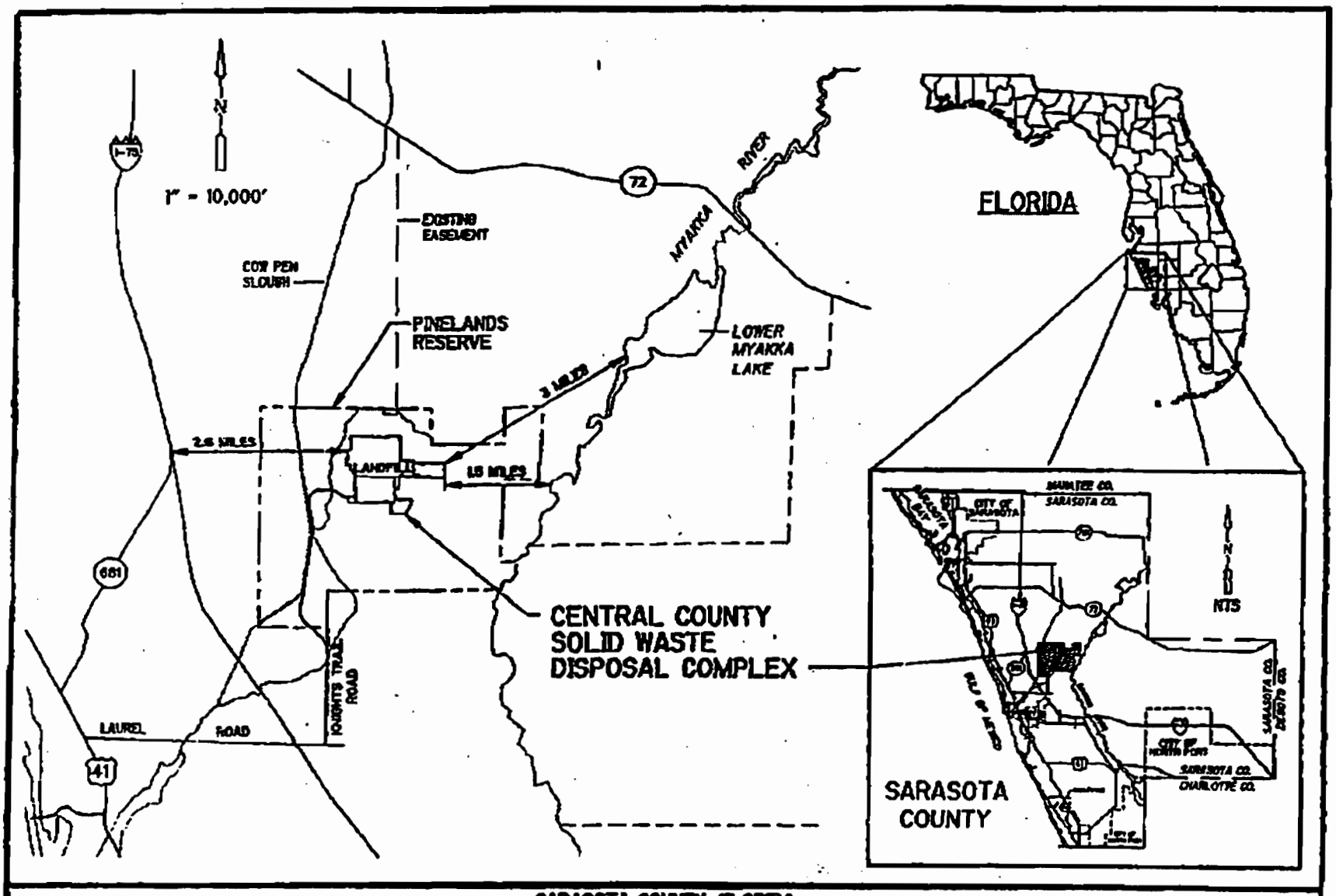
CDM
Camp Dresser & McKee
environmental services

SARASOTA COUNTY
CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX

SITE PLAN

Figure B-1



SARASOTA COUNTY, FLORIDA

CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX SITE RELATIONSHIP MAP

CDM
environmental engineers, scientists, planners, & management consultants

Figure B-2

APPENDIX C

EXEMPT EMISSION UNITS AND ACITIVITIES

APPENDIX C

EXEMPT ACTIVITIES
SARASOTA COUNTY - CENTRAL COUNTY SOLID WASTE COMPLEX

This appendix provides a list of the exempt activities in accordance with Rule 62-213.420(3)(m) and Rule 62-213.430(6). The activities included have been determined to be insignificant in that they would not emit or have the potential to emit;

500 pounds per year or more of lead and lead compounds;

1,000 pounds per year or more of any hazardous air pollutant;

2,500 pounds per year or more of total hazardous air pollutants; or

5.0 tons per year or more of any other regulated pollutant.

Exempt activities:

1. **Tire Recycling Facility:** Discarded tires will be collected at the tire recycling facility. A contractor will grind the tires approximately four to six times per year and dispose of the ground tires. No emissions from this activity are expected to meet or exceed the threshold levels listed above.

2. **White Goods Storage Area:** White goods include used refrigerators and other household appliances. White goods will be collected and stored in piles. Recycling contractors will remove refrigerant from refrigerators and periodically remove the white goods. No emissions from this activity are expected to meet or exceed the threshold levels listed above.

3. **Construction and Demolition (C&D) Debris Recovery Facility:** C&D debris, consisting of materials such as metal, concrete, rubble and dirt, will be collected at the C&D debris recovery facility. C&D debris will be initially sorted to remove large pieces of metal, wood and concrete. The remainder of the C&D debris will be ground and used as landfill cover. Emissions from the C&D debris facility are not expected to meet or exceed the threshold levels listed above.

4. **Household Hazardous Waste:** A covered concrete pad will be used to temporarily store typical household hazardous waste including: kerosene, gasoline, paints, non-oil based paint thinner, oil, propane, adhesives and pesticides. A contractor will periodically remove these items for recycling or disposal. No emissions from this activity are expected to meet or exceed the threshold levels listed above.

5. **Leachate Storage Tank:** Leachate produced in the Class I disposal area will be collected in a 1.8 million gallon storage tank. Leachate will be periodically removed from the tank for treatment. The total potential HAPs emitted by the leachate storage tank are estimated to be 0.23 tons per year which is below the emission threshold listed above.

An FDEP guidance document dated March 15, 1996 cites Attachment A of a July 3, 1995 EPA memorandum, "Initial Operating Permit Application Compliance Certification Policy", commonly called the White Paper, which lists activities that may be considered "trivial". These trivial activities may be treated as if they emit no air pollutants and are not required to be listed in Title V permit applications. Listed below are activities at the Central County Solid Waste Disposal Complex that are included in the list of trivial activities. Attachment A of the White Paper is included in this Appendix.

6. **Maintenance Building:** Vehicle repair and maintenance will be performed in this building. In addition, vehicle air conditioning maintenance and repair will be performed here. Automotive lubricants and motor oil will be stored inside the building.

Additional activities exempt from Title V permitting requirements are listed under 62-210.300(3)(a), F.A.C. A copy of this regulation is included in this Appendix. Currently, there are no such activities planned for the Central County Solid Waste Disposal Complex. However, should such activities be conducted at the facility, the activities would be exempt from Title V permitting requirements.

FDEP GUIDANCE DOCUMENT

AND

ATTACHMENT A OF THE WHITE PAPER

TO: District Air Program Administrators
County Air Program Administrators
Bureau of Air Regulation Engineers

FROM: Howard L. Rhodes, Director
Division of Air Resources Management

DATE: March 15, 1996

SUBJECT: Revision to Trivial List of Activities at a Title V Facility

This guidance replaces the February 12, 1996 Guidance, DARM-PER/V-15. The only change is the rule siting in text of document.

Attachment A of a July 3, 1995 Environmental Protection Agency (EPA) memorandum, "Initial Operating Permit Application Compliance Certification Policy," commonly called the White Paper, attached, comprises a listing of trivial activities.

With one exception, Title V permits will not require that these activities be listed in the Title V permit applications or the Title V permits. These activities are treated as if they emit no air pollutants.

The EPA listing conditionally includes painting under the category of plant maintenance and upkeep activities (page 1) as a trivial activity. If painting activities at a Title V source in Florida result in emissions that are below the thresholds for exemption in Rule 62-213.430(6)(b), F.A.C., they may be included in the application as exemptible activities. Otherwise, they should be listed, but not quantified, as unregulated activities, provided the painting activities are not subject to an applicable requirement. If the painting activities result in emissions that trigger applicable requirements, they must be reported and quantified.
HLR/jb/k

Attachment

ATTACHMENT A

LIST OF ACTIVITIES THAT MAY BE TREATED AS "TRIVIAL"

The following types of activities and emissions units may be presumptively omitted from part 70 permit applications. Certain of these listed activities include qualifying statements intended to exclude many similar activities.

Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.

Air-conditioning units used for human comfort that do not have applicable requirements under title VI of the Act.

Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

Non-commercial food preparation.

Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.

Janitorial services and consumer use of janitorial products.

Internal combustion engines used for landscaping purposes.

Laundry activities, except for dry-cleaning and steam boilers.

Bathroom/toilet vent emissions.

Emergency (backup) electrical generators at residential locations.

Tobacco smoking rooms and areas.

Blacksmith forges.

Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit

modification.[1]

Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.

Portable electrical generators that can be moved by hand from one location to another[2].

Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.

Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals.[3]

Air compressors and pneumatically operated equipment, including hand tools.

Batteries and battery charging stations, except at battery manufacturing plants.

Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP.[4]

Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

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[1]Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise required.

[2]"Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.

[3]Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds. Brazing, soldering, welding and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

[4]Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.

Drop hammers or hydraulic presses for forging or metalworking.

Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

Vents from continuous emissions monitors and other analyzers.

Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.

Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP.

CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.

Consumer use of paper trimmers/binders.

Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants.

Laser trimmers using dust collection to prevent fugitive emissions.

Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents.[5]

Routine calibration and maintenance of laboratory equipment or other analytical instruments.

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[5]Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.

Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

Hydraulic and hydrostatic testing equipment.

Environmental chambers not using hazardous air pollutant (HAP) gasses.

Shock chambers.

Humidity chambers.

Solar simulators.

Fugitive emission related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

Process water filtration systems and demineralizes.

Demineralized water tanks and demineralizer vents.

Boiler water treatment operations, not including cooling towers.

Oxygen scavenging (de-aeration) of water.

Ozone generators.

Fire suppression systems.

Emergency road flares.

Steam vents and safety relief valves.

Steam leaks.

Steam cleaning operations.

Steam sterilizers.

62-210.300, F.A.C. STATIONARY SOURCES

GENERAL REQUIREMENTS

EXEMPTIONS

62-210.300, F.A.C. Stationary Sources - General Requirements

(3) Exemptions.

(a) Full Exemptions. The following facilities, emissions units, or pollutant-emitting activities shall be exempt from the permitting requirements of this chapter and Chapter 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and that the emissions from exempt emissions units or activities shall be considered in determining whether a facility containing such emissions units or activities would be subject to any applicable requirements. Emissions units and pollutant-emitting activities exempt from permitting under this rule are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C.

1. One or more fossil fuel steam generators and hot water generating units located within a single facility and collectively having a total heat input equaling 50 million BTU/hr or less and individually operating no more than 3000 hours per year while firing natural gas and no more than 400 hours per year while firing fuel oil containing no more than 1.0 percent sulfur provided:

a. Construction was commenced on the generators and hot water generating units on or before June 9, 1989;

b. The generators and hot water generating units have not been modified or reconstructed since June 9, 1989; and

c. None of the generators or hot water generating units is subject to the Federal Acid Rain Program.

2. One or more fossil fuel steam generators and hot water generating units located within a single facility and collectively having a total heat input equaling 100 million BTU/hr or less and individually operating no more than 1500 hours per year while firing natural gas and no more than 200 hours per year while firing fuel oil containing no more than 1.0 percent sulfur, provided:

a. Construction was commenced on the generators and hot water generating units on or before June 9, 1989;

b. The generators and hot water generating units have not been modified or reconstructed since June 9, 1989; and

c. None of the generators or hot water generating units is subject to the Federal Acid Rain Program as defined at Rule 62-213.200, F.A.C.

3. One or more fossil fuel steam generators and hot water generating units located within a single facility and collectively having a total heat input equaling 10 million BTU/hr or less, and fired exclusively by natural gas except for periods of natural gas curtailment during which propane or fuel oil containing no more than 1.0 percent sulfur is fired, provided such generators and hot water heating units are not subject to the Federal Acid Rain Program.

4. Home heating and comfort heating with a gross maximum heat output of less than one million Btu per hour.

5. Internal combustion engines in boats, aircraft and vehicles used for transportation of passengers or freight.

6. Incinerators in one or two family dwellings or in multi-family dwellings containing four or less family units, one of which is owner-occupied.

7. Noncommercial and nonindustrial vacuum cleaning systems used exclusively for residential housekeeping purposes.

8. Cold storage refrigeration equipment, except for any such equipment located at a Title V source using an ozone-depleting substance regulated under 40 CFR Part 82.

9. Vacuum pumps in laboratory operations.

10. Equipment used for steam cleaning.

11. Belt or drum sanders having a total sanding surface of five square feet or less and other equipment used exclusively on wood or plastics or their products having a density of 20 pounds per cubic foot or more.

12. Equipment used exclusively for space heating, other than boilers.

13. Noncommercial smoke houses used exclusively for smoking food products.

14. Bakery ovens and confection cookers where the products are edible and intended for human consumption.

15. Laboratory equipment used exclusively for chemical or physical analyses.

16. Brazing, soldering or welding equipment.

17. Laundry dryers, extractors, or tumblers for fabrics cleaned with only water solutions of bleach or detergents.

18. Petroleum dry cleaning facilities with a solvent consumption of less than 3,250 gallons per year.

19. Portable air curtain incinerators except any air curtain incinerator intended to be continuously operated at one site for more than six months or at any Department-permitted landfill for any length of time;

provided:

a. Only land clearing debris or clean dry wood is burned;

b. Pit width, length, and side walls are properly maintained so that combustion of the waste within the pit is maintained at an adequate temperature and with sufficient air recirculation to provide enough residence time and mixing for complete combustion and control of emissions. Pit width shall not exceed twelve (12) feet, and vertical side walls shall be maintained;

c. No waste is positioned to be burned above the level of the air curtain in the pit;

d. Visible emissions do not exceed 40 percent opacity except for up to 30 minutes during periods of startup and shutdown;

e. The air curtain incinerator is located at least 300 feet away from any occupied building if it has refractory-lined walls and forced underdraft air or otherwise at least 1,000 feet away from any occupied building; and

f. The burning is ignited after 9:00 a.m. and extinguished at least one hour before sunset, except that, in the case of an air curtain incinerator with refractory-lined walls and forced underdraft air which is located at least 1,000 feet away from any off-site occupied building, the burning may commence at sunrise, and the air curtain incinerator may be charged until sunset provided it does not create a nuisance.

20. One or more emergency generators located within a single facility provided:

a. None of the emergency generators is subject to the Federal Acid Rain Program; and

b. Total fuel consumption by all such emergency generators within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

21. One or more heating units and general purpose internal combustion engines located within a single facility provided:

a. None of the heating units or general purpose internal combustion engines is subject to the Federal Acid Rain Program; and

b. Total fuel consumption by all such heating units and general purpose internal combustion engines within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

22. Fire and safety equipment.

23. Surface coating operations within a single facility if the total quantity of coatings containing greater than 5.0 percent VOCs, by volume, used is 6.0 gallons per day or less, averaged monthly, provided:

a. Such operations are not subject to a volatile organic compound Reasonably Available Control Technology (RACT) requirement of Chapter 62-296, F.A.C.; and

b. The amount of coatings used shall include any solvents and thinners used in the process including those used for cleanup.

24. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume.

25. Phosphogypsum cooling ponds and inactive phosphogypsum stacks which have demonstrated compliance with the requirements of 40 CFR Part 61, Subpart R, hereby adopted and incorporated by reference.

26. Degreasing units using heavier-than-air vapors exclusively, except any such unit using or emitting any substance classified as a hazardous air pollutant.

27. Volume reduction processes as defined in Rule 62-296.417, F.A.C., wherein the owner or operator manages only spent mercury-containing lamps removed from the facility where the volume reduction process is located.

28. Mercury recovery processes as defined in Rule 62-296.417, F.A.C., wherein the owner or operator manages only mercury-containing devices temporarily or permanently removed from service from the owner or operator's own facilities or installations.

29. Bulk gasoline plants, provided:

a. Such operations are not conducted at a facility that is subject to the permitting requirements of Chapter 62-213, F.A.C., and the emissions from such operations would not contribute to total emissions that would make the facility subject to those requirements;

b. The facility receives and distributes only petroleum-based lubricants, gasoline, diesel fuel, mineral spirits and kerosene;

c. The total storage capacity for gasoline at the facility does not exceed 100,000 gallons;

d. The facility does not exceed a throughput rate (receive and distribute) of 1.3 million gallons of gasoline in any consecutive twelve-month period;

e. The facility is not subject to any Standard of Performance for New Stationary Sources (NSPS) requirement adopted by reference in Rule 62-204.800, F.A.C.; and

f. The facility is not subject to any volatile organic compound Reasonably Available Control Technology (RACT) requirement of Chapter 62-296, F.A.C.

(b) Temporary Exemption.

1. Except for an emissions unit that is subject to any applicable regulation or permitting requirement under Rules 62-212.400 or 62-212.500, F.A.C.; any emissions standard or other requirement adopted by reference prior to July 1, 1995, in Rule 62-204.800(7), 62-204.800(8), or 62-204.800(9), F.A.C.; any requirement established pursuant to Rule 62-296.330, F.A.C.; or any Reasonably Available Control Technology (RACT) provisions under Rules 62-296.500 through 62-296.712, F.A.C.; an emissions unit that is described in a timely and complete permit application under Chapter 62-213, F.A.C., and not subject to an existing valid air permit, shall be exempt from the permitting requirements of this Chapter, Chapter 62-4, and Rule 62-212.300, F.A.C., until a final determination on a permit application under Chapter 62-213, F.A.C., is made. In addition, no emissions unit shall be exempt under this paragraph if its emissions cause or contribute to a significant emissions increase under Rule 62-212.400 or 62-212.500, F.A.C., which would trigger preconstruction review, or if it is constructed or modified, as defined under Rule 62-212.200, F.A.C., subsequent to November 23, 1994. Any applicant exercising this exemption shall provide notification of such exemption to the Department, and further authorizes the Department to inspect these emissions units at the Department's discretion. Emissions units subject to existing valid permits shall continue to operate consistent with those permits as provided under Rule 62-213.420(1)(b)2., F.A.C.

2. Until July 1, 1996, perchloroethylene dry cleaning facilities existing as of December 9, 1991, with a solvent consumption of less than 1,475 gallons per year shall be exempt from the requirement to obtain an air operation permit.

3. Until permitted pursuant to Chapter 62-213, F.A.C., phosphogypsum disposal areas are exempt from the requirement to obtain an air operation permit.

(c) Conditional Exemptions From Title V Air Permitting. The following facilities are exempt from the requirement to obtain a Title V air operation permit under the provisions of Chapter 62-213, F.A.C., but are not exempt from the requirement to obtain any other air permit as may be required by this rule. A facility is not entitled to an exemption under this rule if it is a Title V source pursuant to paragraph (f), (g), or (h) of the definition of "major source of air pollution" or if it contains other emissions units which would cause the facility to be classified as a Title V source as a result of their combined potential to emit regulated pollutants.

1. Asphalt concrete plants, provided the following conditions are met:

a. The production rate of asphaltic concrete shall not exceed 500,000 tons in any consecutive twelve-month period.

b. Fuel oil consumption shall not exceed 1.2 million gallons in any consecutive twelve-month period.

c. Fuel oil shall not exceed 1.0 percent sulfur content, by weight. The owner shall maintain records to demonstrate that each shipment of fuel oil has 1.0 percent or less sulfur and that the sulfur content was determined by ASTM methods ASTM D4057-88 and ASTM D129-91,

ASTM D2622-94 or ASTM D4294-90, adopted and incorporated by reference in Rule 62-297.440(1).

d. Particulate matter (PM) emissions shall not exceed 0.04 grains per dry standard cubic foot averaged over a three-hour period, if the facility is subject to 40 CFR 60.90, Subpart I. If the facility is not subject to Subpart I, it shall not exceed the applicable particulate emission limiting standard pursuant to Rule 62-296.310(1), F.A.C., and its hours of operation shall not exceed 4,000 hours in any consecutive twelve-month period.

e. Fugitive PM emissions shall be controlled in accordance with the requirements of Rule 62-296.310(3), F.A.C.

f. Visible emissions (VE) shall not be equal to or greater than 20 percent opacity.

g. The owner or operator shall maintain records to document the monthly and the twelve-month rolling totals of tons of asphaltic concrete produced, the gallons of fuel oil consumed, and the hours of operation. Such records shall be retained for five years.

h. The owner or operator shall submit an Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) to the Department annually pursuant to Rule 62-210.370(3), F.A.C.

i. The owner or operator shall submit a stack test using EPA Reference Method 5 or 5A and a visible emission (VE) test using EPA Reference Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C., that demonstrate compliance with the applicable PM and VE standards, respectively, to the Department by March 15, 1996, and annually thereafter during each federal fiscal year (October 1 - September 30). The initial tests shall have been conducted between March 16, 1995 and March 15, 1996.

j. The owner or operator of any asphalt plant in operation as of January 1, 1996, shall notify the appropriate permitting authority, with a copy to the Division of Air Resources Management, in writing, not later than March 15, 1996. Such notification shall include a statement that the facility is operating in compliance with the provisions of Rule 62-210.300(3)(c)1., F.A.C., and that the facility agrees to continue to operate in compliance with these provisions. If such facility has a valid air operation permit, the permit will be updated by the Department to incorporate the requirements of Rule 62-210.300(3)(c)1.a. through i., F.A.C. If such facility does not have a valid air operation permit, the facility shall apply to the Department for an air operation permit not later than March 15, 1996.

k. The owner or operator of any asphalt plant which commences operation after January 1, 1996, must request that the requirements of Rule 62-210.300(3)(c)1. a. through i., F.A.C., be incorporated into the facility's air operation permit.

2. Bulk gasoline plants, provided the following conditions are met:

a. The facility shall receive and distribute only petroleum-based lubricants, gasoline, diesel fuel, mineral spirits and kerosene.

b. The total storage capacity for gasoline at the facility shall not exceed 150,000 gallons.

c. The facility shall not exceed a throughput rate (receive and distribute) of 6.0 million gallons of gasoline in any consecutive twelve-month period.

d. The owner or operator of any bulk gasoline plant in operation as of January 1, 1996, which is entitled to an air general permit pursuant to Rule 62-210.300(4)(a)2., F.A.C., shall submit a completed Bulk Gasoline Plant Air General Permit Notification Form (DEP Form No. 62-210.920(2)) to the Department by May 15, 1996. The owner or operator of any such plant that would commence operation after January 1, 1996, shall submit the general permit notification form to the Department at least 30 days prior to commencing operation or by May 15, 1996, whichever is later.

e. The owner or operator of any bulk gasoline plant in operation as of January 1, 1996, which is not entitled to an air general permit shall notify the appropriate permitting authority, with a copy to the Division of Air Resources Management, in writing, not later than March 15, 1996. Such notification shall include a statement that the facility is operating in compliance with the provisions of Rule 62-210.300(3)(c)2., F.A.C., and that the facility agrees to continue to operate in compliance with these provisions. If such facility has a valid air operation permit, the permit will be updated by the Department to incorporate the requirements of Rule 62-210.300(3)(c)2.a. through c., F.A.C. If such facility does not have a valid air operation permit, the facility shall apply to the Department for an air operation permit not later than March 15, 1996. The owner or operator of any such bulk gasoline plant which commences operation after January 1, 1996, must request that the requirements of Rule 62-210.300(3)(c)2. a. through c., F.A.C., be incorporated into the facility's air operation permit.

3. Facilities comprising heating units and general purpose internal combustion engines, provided the following conditions are met:

a. The facility operates no emissions units other than the heating units and general purpose internal combustion engines.

b. None of the heating units or general purpose internal combustion engines is subject to the Federal Acid Rain Program as defined at Rule 62-210.200, F.A.C.

c. Each of the heating units or general purpose internal combustion engines meets the general visible emissions standard of Rule 62-296.320(4)(b), F.A.C.

d. Total fuel consumption by all heating units and general purpose internal combustion engines within the facility is limited to 250,000 gallons per year of diesel fuel, 30,000 gallons per year of gasoline, 35 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

e. The owner or operator of the facility maintains records to document the fuel consumption, by type, for each emissions unit. The owner or operator shall retain these records, available for Department inspection, for a period of at least five years.

f. The owner or operator submits a completed Heating Units and General Purpose Internal Combustion Engines Air General Permit Notification Form (DEP Form No. 62-210.920(3)), showing entitlement to the use of the general permit, to the Department at least 30 days prior to beginning operation or by May 15, 1996, whichever is later.

4. Facilities comprising surface coating operations, provided the following conditions are met:

a. The facility operates no emissions units other than the surface coating operations.

b. Such operations are not subject to a volatile organic compound Reasonably Available Control Technology (RACT) emission limiting standard of Chapter 62-296, F.A.C.

c. The amount of coatings used shall include any solvents and thinners used in the process including those used for cleanup.

d. The total quantity of VOCs in such coatings is 44 pounds per day or less, averaged monthly.

e. The owner or operator of the facility maintains records to document the VOC content and the quantity of the coatings used. The owner or operator shall retain these records, available for Department inspection, for a period of at least five years.

f. The owner or operator submits a completed Surface Coating Operations Air General Permit Notification Form (DEP Form No. 62-210.920(4)), showing entitlement to the use of the general permit, to the Department at least 30 days prior to beginning operation or by May 15, 1996, whichever is later.

APPENDIX D

COMPLIANCE PLAN

APPENDIX D

COMPLIANCE PLAN
SARASOTA COUNTY - CENTRAL COUNTY SOLID WASTE COMPLEX

This appendix outlines the methods by which the Sarasota County Central County Solid Waste Complex plans to comply with its applicable requirements. Many of the facility-wide applicable requirements, as listed in Table A-1 of Appendix A, are directed towards general standards and prohibitions for stationary air pollution sources. No specific actions are required by the facility for these general directives except on a periodic, as-needed basis. Facility compliance with these general requirements will continue to be met by applying for necessary air permits and refraining from prohibited activities. Discussed below are compliance plans for specific directives for the facility and individual emission units. Additional compliance plans are indicated in Appendix A.

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES 40 CFR 60, Subpart WWW

The Sarasota County Central County Solid Waste Complex will submit annual non-methane organic compound (NMOC) emission rate reports. Within one year of submitting the NMOC emission rate report that indicates NMOC emissions greater than or equal to 50 Mg per year, the County will submit design plans for a collection and control system in accordance with the regulation. The collection and control system will then be installed in accordance with the regulation. Appendix G further discusses the County's plans to comply with this regulation.

NATIONAL EMISSION STANDARD FOR ASBESTOS, 40 CFR 61, Subpart M

The National Emission Standard for Asbestos as found in 40 CFR 61, Subpart M provides emission standards for asbestos, including proper disposal and handling procedures. The facility will comply with this requirement by containing asbestos waste with non-asbestos daily cover. Required signs and notices will also be in place at the facility, and personnel will be trained in proper asbestos waste handling procedures.

SERVICING OF MOTOR VEHICLE AIR CONDITIONERS, 40 CFR 82, Subpart B RECYCLING AND EMISSIONS REDUCTION, 40 CFR 82, Subpart F MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, 62-281, F.A.C.

Maintenance on air conditioners in motor vehicles may be performed at the landfill. Personnel performing such maintenance will be properly trained and certified by a technician certification program approved by the Administrator pursuant to §82.40. In addition, equipment used to perform maintenance will be certified as approved.

The County will retain records of the name and address of any facility to which the refrigerant is sent, and records demonstrating that all persons using the equipment are certified. Records will be maintained for a minimum of three years and on-site.

CONSTRUCTION PERMITS, 62-4.210, F.A.C. and 62-300.(1), F.A.C.
GENERAL PRECONSTRUCTION REVIEW REQUIREMENTS, 62-212.300, F.A.C.

Sarasota County obtained a solid waste construction permit (permit number SC58-214931) for the Central County Solid Waste Disposal Complex dated October 12, 1993. The regulation requiring an air construction permit for MSW landfills was promulgated March 12, 1996. Since the air construction permit was required after construction had already begun, Sarasota County did not have the opportunity to obtain an air construction permit before commencement of construction. However, the County will submit an air construction permit application and fee for the Central County Solid Waste Disposal Complex if directed to do so by the FDEP. The County will similarly comply with the general preconstruction review requirements.

OPERATION PERMIT FOR NEW SOURCES, 62-4.220, F.A.C.

The County is complying with this regulation by submitting this Title V air operating permit application.

UNCONFINED EMISSIONS OF PARTICULATE MATTER, 62-296.320(4)(c), F.A.C.

Pursuant to 62-296.320(4)(c), unconfined emissions of particulate matter (PM and PM-10) without reasonable precautions to prevent such emissions are prohibited. Under 62-210.200, F.A.C., unconfined emissions are defined as those emissions that become airborne from unenclosed operations without being conducted through a stack, while fugitive emissions are defined as those emissions which could not reasonably pass through a stack or vent. Fugitive emissions can be unconfined, but unconfined emissions are not necessarily fugitive. Unconfined PM and PM-10 emissions, that are also fugitive, at the Central County Solid Waste Disposal Complex result from vehicular traffic on unpaved roads, paved roads, and earth moving operations, such as borrow moving and daily cover operations. Since these emissions are expected to remain on-site, they should not be subject to controls. Nevertheless, the County may minimize particulate matter emissions by watering roads.

ANNUAL OPERATING REPORT FOR AIR POLLUTANT EMITTING FACILITY, 62-370(3), F.A.C.

Pursuant to 62-210.370(3), F.A.C., the Sarasota County Central County Solid Waste Complex will submit an Annual Operating Report (AOR) for each calendar year to FDEP by March 1 of the following year, unless otherwise requested by FDEP. The AOR will be completed on the form 62-210.900(5), F.A.C. In accordance with 62-213.205(1), F.A.C., between January 15 and March 1 of each year, the Sarasota County Central County Solid Waste Complex will pay, upon written notice from FDEP, an annual emissions fee determined by the procedures specified by the rule. The emissions fee will be submitted along with a completed form 62-213.900(1), F.A.C

APPENDIX E

COMPLIANCE REPORT AND CERTIFICATION

APPENDIX E

COMPLIANCE REPORT AND CERTIFICATION
CENTRAL COUNTY SOLID WASTE DISPOSAL FACILITY

The subject facility is in compliance with each applicable requirement identified in Appendix A.

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 report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

D R. Bullock — 3-11-97

Signature — Date

David Bullock
Printed Name

Solid Waste Director, Sarasota County Solid Waste Department
Title

APPENDIX F

FUGITIVE EMISSIONS

APPENDIX F

FUGITIVE EMISSIONS
CENTRAL COUNTY SOLID WASTE DISPOSAL FACILITY

Fugitive emissions are expected to occur at the Central County Solid Waste Disposal Facility besides fugitive particulate matter emissions from the roads and earth moving operations. Specifically, the yard waste composting activities are expected to emit volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). As yard waste decomposes, organic compounds in the waste are expected to volatilize and emit as fugitive emissions. Yard waste will be composted in approximately 70 windrows, each approximately 300 feet long, 10 feet high, and 25 feet wide. Appendix I includes the emissions calculations for the yard waste composting facility.

APPENDIX G

ENCLOSED FLARES

APPENDIX G

ENCLOSED FLARES
CENTRAL COUNTY SOLID WASTE DISPOSAL FACILITY

Although Sarasota County plans to have active collection and control of the landfill gas, currently there are no design plans for the system. Forty CFR 60 Subpart WWW requires MSW landfills constructed after May 30, 1991 and with a design capacity greater than or equal to 2.5 million Mg or 2.5 million cubic meters to submit annual non-methane organic compound (NMOC) emission rate reports. Those landfills with NMOC emissions greater than or equal to 50 Mg per year as reported in the annual reports are required to submit design plans for a landfill gas collection and control system within 12 months of submitting the NMOC emission rate report indicating NMOC emissions greater than or equal to 50 Mg/yr. The collection and control system must then be installed within 18 months of submitting the design plans as long as the system is installed in areas containing waste at least 5 years old for active areas, or at least 2 years old for closed areas. Sarasota County plans to submit landfill gas collection and control system design plans within 12 months of the submittal of the NMOC emission rate report which exceeds the threshold. Preliminary NMOC emission rate calculations based on the permitted refuse acceptance rate of 1,420 tons per day indicate that the second annual NMOC emission rate report will exceed the 50 Mg/yr threshold.

Because the emissions included in this Title V permit application are based on the landfill's potential to emit, the emission calculations are based on the year of maximum emissions, which is the year of landfill closure. As described above, a landfill gas collection and control system is planned for installation and operation before the year of landfill closure. It is assumed that the system will consist of an active landfill gas collection system and enclosed flares. Therefore, the emissions calculations are based on the assumption that an active landfill gas collection system and enclosed flares will be installed and operational in the year of landfill closure.

Appendix H includes the emissions calculations for the enclosed flares. Assumptions used in these calculations were based on typical enclosed flare operational conditions provided by a manufacturer of enclosed flares.

Certain design criteria specified in 40 CFR 60 Subpart WWW must be met in the system design plans. Specifically, enclosed flares must destroy 98 weight percent of NMOCs in the landfill gas combusted or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry bases as hexane at three percent oxygen. In addition, an active landfill gas collection system must collect gas at a sufficient extraction rate and be designed to minimize off-site migration of subsurface gas.

Operational criteria are also specified in 40 CFR 60 Subpart WWW. Active landfill gas collection systems must operate such that each wellhead is under negative pressure, has an interior temperature of less than 55°C, and has either a nitrogen level less than 20 percent or an oxygen level less than five percent. Since these parameters must be measured monthly, each wellhead will be equipped with a sampling port. In addition, an enclosed flare is required to be equipped with a temperature monitoring device equipped with a continuous recorder, as well as a gas flow rate measuring device that provides a measurement of gas flow to or bypass of the enclosed flare. The gas flow rate measuring device must record the flow to the control device at least every 15 minutes, or the bypass line valve must be secured in the closed position with a car-seal or a lock-and-key type configuration.

The landfill gas collection and control system that will be installed at the Central County Solid Waste Disposal Complex will meet the design and operational criteria specified in 40 CFR 60 Subpart WWW. The Title V permit application reflects this assertion.

APPENDIX H

FLARE AND UNCOLLECTED LANDFILL AREA EMISSIONS CALCULATIONS

Appendix H

75% Collection Efficiency

Florida Title V: Class I Disposal Area Emissions
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz
Chk. by:	B. Balchunas
Date:	03/04/97
Sheet No.	1 of 11
Job No.	12-428.44

$$Q = Lo * R * (e^{-k*c} - e^{-k*t}) \qquad (1)$$

$$M = 2 * Q * Cn * \left(\frac{MW * \frac{298}{24.45}}{273 + T} \right) * \frac{1}{1x10^{6}\, ppm} * \frac{1\, Mg}{1000\, kg} \qquad (2)$$

where

Q = Methane generation rate at time t (cu. m CH4/yr)
Lo = Methane generation potential (cu. m CH4/Mg refuse)
R = Average annual refuse acceptance rate (Mg/yr)
e = Base log, approximately 2.718
k = Methane generation rate constant (1/yr)
c = Years since landfill closure (=0 for active landfills)
t = Years since refuse has been in place
M = Generation rate of compound (Mg/yr)
Cn = Concentration of compound in landfill gas (parts per million by volume)
MW = Molecular weight of compound
T = Temperature of landfill gas (deg. C)

Temperature of landfill gas, T (deg. C):	25	
Methane generation potential, Lo (cu. m CH4/Mg):	124.9	Note : AP-42 default value
Methane generation rate constant, k (1/yr):	0.04	Note : AP-42 default value

Year of landfill opening:	1998
Year of landfill closure (Max. year):	2037
Year for emissions calculations:	2037
Time since landfill closure, c (yrs):	0
Time since landfill opening, t (yrs):	39
Average daily refuse acceptance rate, (tons/day):	1,420
Average annual refuse acceptance rate, (tons/yr):	518,300
Average annual refuse acceptance rate, R (Mg/yr):	470,199
Total landfill area at full build-out (acres):	60
Area with landfill gas collection (acres):	60
Percent of area with collection (%):	100
Landfill gas collection efficiency (%):	75

Methane generation rate, Q (m^3 CH_4/yr):	46,386,982
Methane that escapes collection, Q_e (m^3 CH_4/yr):	11,596,746
Methane that is collected, Q_c (m^3 CH_4/yr):	34,790,237
Landfill gas that is collected (m^3/yr):	69,580,474

Note: 1. Concentrations of compounds taken from the EPA Landfill Air Emissions Estimation Model, DOS version, March 1996.
2. Average annual refuse acceptance rate taken from solid waste permit application.
3. Enclosed flare control efficiencies from typical enclosed flare emission data provided by manufacturer of enclosed flares.
4. Where the flare destruction efficiency = 98%, emissions for a compound = 2% of compound in landfill gas using Q_c.

Criteria and Precursor Air Pollutants (Title V threshold : 100tpy)

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Carbon Monoxide	CO	309.32	28.01	8.22	9.06	see p. 11	25.7	28.3	37.4
Lead - Total (including elemental lead and all lead compounds, expressed as lead) *	PB								
Nitrogen Oxides (including nitrogen dioxide and nitric oxide, expressed as nitrogen dioxide)	NOX					see p. 11	10.6	11.6	11.6
Particulate Matter - Total	PM								
Particulate Matter - PM10	PM10								
Sulfur Dioxide	SO2					see p. 11	8.51	9.38	9.38
Volatile Organic Compounds (excluding those compounds defined by rule which do not participate in atmospheric photochemical reactions) = 28% of uncollected NMOC	VOC	167	86.17	13.6	15.0	98	0.819	0.903	15.9

* Title V threshold : 5 tpy

Designated Air Pollutants (Title V threshold : 100 tpy)
(Pollutants regulated under sections 111 and 129 of the Clean Air Act)

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Cadmium	H027								
Dioxin/Furan (including all tetra through octachlorinated dibenzo-p-dioxins and dibenzofurans)	DIOX								
Fluorides - Total (including elemental fluorine and all fluoride compounds)	FL			2.43	2.68	98	0.15	0.161	2.84
Landfill Fluorides Fugitive Emissions Components:				2.43	2.68	98	0.15	0.161	2.84
Chlorodifluoromethane		1.21	86.47	0.099	0.109	98	0.006	0.007	0.116
Dichlorodifluoromethane		15.7	120.91	1.80	1.98	98	0.108	0.119	2.10
Dichlorofluoromethane		4.4	102.92	0.430	0.474	98	0.026	0.028	0.502
Fluorotrichloromethane		0.756	137.37	0.099	0.109	98	0.006	0.007	0.115
Hydrogen chloride	H106								
Hydrogen sulfide	H2S	35.5	34.08	1.15	1.27	98	0.06886	0.0759	1.34
Mercury	H114	0.107	200.61	0.0204	0.0224	0	0.061	0.0673	0.0898
Sulfuric Acid Mist	SAM								

Hazardous Air Pollutants (Title V threshold : 10 tpy)

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Total Hazardous Air Pollutants *	HAPS			10.3	11.4		0.68	0.75	12.1
Acetaldehyde	H001								
Acetamide	H002								
Acetonitrile	H003								
Acetophenone	H004								
2-Acetylaminofluorene	H005								
Acrolein	H006								
Acrylamide	H007								
Acrylic acid	H008								
Acrylonitrile	H009	11.5	53.06	0.579	0.638	98	0.035	0.038	0.676
Allyl chloride	H010								
4-Aminobiphenyl	H011								
Aniline	H012								
o-Anisidine	H013								
Antimony Compounds	H014								
Arsenic Compounds (inorganic including arsine)	H015								
Asbestos	H016								
Benzene (including benzene from gasoline)	H017	1.91	78.12	0.142	0.156	98	0.0085	0.0094	0.165
Benzidine	H018								
Benzotrichloride	H019								
Benzyl chloride	H020								
Beryllium Compounds	H021								
Biphenyl	H022								
Bis(2-ethylhexyl)phthalate (DEHP)	H023								
Bis(chloromethyl)ether	H024								
Bromoform	H025								
1,3-Butadiene	H026								
Cadmium Compounds	H027								
Calcium cyanamide	H028								
Caprolactam	H029								
Captan	H030								
Carbaryl	H031								

* Total Hazardous Air Pollutants Title V threshold: 25 tpy

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Carbon disulfide	H032	0.583	76.13	0.0421	0.0464	98	0.003	0.003	0.0492
Carbon tetrachloride	H033	0.004	153.84	0.0006	0.0006	98	0.000035	0.000039	0.0007
Carbonyl sulfide	H034	0.49	60.07	0.0279	0.0308	98	0.002	0.002	0.0326
Catechol	H035								
Chloramben	H036								
Chlordane	H037								
Chlorine	H038								
Chloracetic acid	H039								
2-Chloroacetophenone	H040								
Chlorobenzene	H041	0.254	112.56	0.0271	0.0299	98	0.0016	0.0018	0.0317
Chlorobenzilate	H042								
Chloroform	H043	0.019	119.38	0.0022	0.0024	98	0.0001	0.0001	0.0025
Chloromethyl methyl ether	H044								
Chloroprene	H045								
Chromium Compounds	H046								
Cobalt Compounds	H047								
Coke Oven Emissions	H048								
Cresols/Cresylic acid (isomers and mixture)	H049								
o-Cresol	H050								
m-Cresol	H051								
p-Cresol	H052								
Cumene	H053								
Cyanide Compounds (X'CN, where X = H' or any other group where a formal dissociation may occur; for example, KCN or Ca(CN)2)	H054								
2,4-D, salts and esters	H055								
DDE	H056								
Diazomethane	H057								
Dibenzofurans	H058								
1,2-Dibromo-3-chloropropane	H059								
Dibutylphthalate	H060								
1,4-Dichlorobenzene(p)	H061	0.213	147	0.0297	0.0327	98	0.0018	0.0020	0.0347
3,3-Dichlorobenzidene	H062								

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Dichloroethyl ether (Bis(2-chloroethyl)ether)	H063								
1,3-Dichloropropene	H064								
Dichlorvos	H065								
Diethanolamine	H066								
N,N-Diethyl aniline (N,N-Dimethylaniline)	H067								
Diethyl sulfate	H068								
3,3-Dimethoxybenzidine	H069								
Dimethyl aminoazobenzene	H070								
3,3-Dimethyl benzidine	H071								
Dimethyl carbamoyl chloride	H072								
Dimethyl formamide	H073								
1,1-Dimethyl hyrdazine	H074								
Dimethyl phthalate	H075								
Dimethyl sulfate	H076								
4,6-Dinitro-o-cresol, and salts	H077								
2,4-Dinitrophenol	H078								
2,4-Dinitrotoluene	H079								
1,4-Dioxane (1,4-Diethyleneoxide)	H080								
1,2-Diphenylhydrazine	H081								
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	H082								
1,2-Epoxybutane	H083								
Ethyl acrylate	H084								
Ethyl benzene	H085	4.61	106.17	0.464	0.512	98	0.0279	0.0307	0.542
Ethyl carbamate (Urethane)	H086								
Ethyl chloride (Chloroethane)	H087	1.37	64.52	0.0838	0.0924	98	0.0050	0.00555	0.0980
Ethylene dibromide (Dibromoethane)	H088								
Ethylene dichloride (1,2-Dichloroethane)	H089	0.407	98.96	0.0382	0.0421	98	0.0023	0.0025	0.0446
Ethylene glycol	H090								
Ethylene imine (Aziridine)	H091								
Ethylene oxide	H092								
Ethylene thiourea	H093								
Ethylidene dichloride (1,1-Dichloroethane)	H094	2.35	98.96	0.221	0.243	98	0.0132	0.0146	0.258
Formaldehyde	H095								

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Glycol ethers (includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n = 1, 2, or 3; R = alkyl or aryl groups, and R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.)	H096								
Heptachlor	H097								
Hexachlorobenzene	H098								
Hexachlorobutadiene	H099								
Hexachlorocyclopentadiene	H100								
Hexachloroethane	H101								
Hexamethylene-1,6-diisocyanate	H102								
Hexamethylphosphoramide	H103								
Hexane	H104	6.57	86.18	0.537	0.592	98	0.032	0.036	0.628
Hydrazine	H105								
Hydrochloric acid	H106								
Hydrogen fluoride (Hydrofluoric acid)	H107								
Hydroquinone	H108								
Isophorone	H109								
Lead Compounds	PB								
Lindane (all isomers)	H111								
Maleic anhydride	H112								
Manganese Compounds	H113								
Mercury Compounds	H114	0.107	200.61	0.0204	0.0224	0	0.061	0.0673	0.0898
Methanol	H115								
Methoxyhlor	H116								
Methyl bromide (Bromomethane)	H117								
Methyl chloride (Chloromethane)	H118	1.21	50.49	0.0580	0.0639	98	0.003	0.004	0.0677
Methyl chloroform (1,1,1-Trichloroethane)	H119	0.48	133.42	0.0608	0.0670	98	0.0036	0.0040	0.0710
Methyl ethyl ketone (2-Butanone)	H120	7.09	72.11	0.485	0.535	98	0.029	0.032	0.567
Methyl hydrazine	H121								
Methyl iodide (Iodomethane)	H122								
Methyl isobutyl ketone (Hexone)	H123	1.21	100.16	0.115	0.127	98	0.007	0.008	0.134

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Methyl isocyanate	H124								
Methyl methacrylate	H125								
Methyl tert butyl ether	H126								
4,4-Methylene bis (2-chloroaniline)	H127								
Methylene chloride (Dichloromethane)	H128	14.3	84.93	1.15	1.27	98	0.069	0.076	1.35
Methylene diphenyl diisocyanate (MDI)	H129								
4,4-Methylenedianiline	H130								
Mineral fibers (fine), includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or. other mineral derived fibers) of average diameter 1 micrometer or less	H131								
Naphthalene	H132								
Nickel Compounds	H133								
Nitrobenzene	H134								
4-Nitrobiphenyl	H135								
4-Nitrophenol	H136								
2-Nitropropane	H137								
N-Nitroso-N-methylurea	H138								
N-Nitrosodimethylamine	H139								
N-Nitrosomorpholine	H140								
Parathion	H141								
Pentachloronitrobenzene (Quintobenzene)	H142								
Pentachlorophenol	H143								
Phenol	H144								
p-Phenylenediamine	H145								
Phosgene	H146								
Phosphine	H147								
Phosphorus	H148								
Phthalic anhydride	H149								
Polychlorinated biphenyls (Aroclors)	H150								
Polycyclic organic matter (includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C)	H151								

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected		Flare	Flare		Total Emissions (tons/yr)
				Emissions M (Mg/yr)	Emissions (tons/yr)	Avg. Control Efficiency (%)	Emissions M (Mg/yr)	Emissions (tons/yr)	
1,3-Propane sultone	H152								
beta-Propiolactone	H153								
Propionaldehyde	H154								
Propoxur (Baygon)	H155								
Propylene dichloride (1,2-Dichloropropane)	H156	0.171	112.99	0.0183	0.0202	98	0.0011	0.0012	0.0214
Propylene oxide	H157								
1,2-Propylenimine (2-Methyl aziridine)	H158								
Quinoline	H159								
Quinone	H160								
Radionuclides (including radon), a type of atom which spontaneously undergoes radioactive decay	H161								
Selenium Compounds	H162								
Styrene	H163								
Styrene oxide	H164								
2,3,7,8-Tetrachlorodibenzo-p-dioxin	H165								
1,1,2,2-Tetrachloroethane	H166	1.11	167.85	0.177	0.195	98	0.011	0.012	0.207
Tetrachloroethylene (Perchloroethylene)	H167	3.73	165.83	0.587	0.647	98	0.035	0.039	0.686
Titanium tetrachloride	H168								
Toluene	H169	39.3	92.14	3.44	3.79	98	0.206	0.227	4.01
2,4-Toluene diamine	H170								
2,4-Toluene diisocyanate	H171								
o-Toluidine	H172								
Toxaphene (chlorinated camphene)	H173								
1,2,4-Trichlorobenzene	H174								
1,1,2-Trichloroethane	H175	0.1	133.41	0.0127	0.0140	98	0.0008	0.0008	0.0148
Trichloroethylene	H176	2.82	131.29	0.351	0.387	98	0.0211	0.0232	0.410
2,4,5-Trichlorophenol	H177								
2,4,6-Trichlorophenol	H178								
Triethylamine	H179								
Trifluralin	H180								
2,2,4-Trimethylpentane	H181								

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Uncollected Emissions M (Mg/yr)	Uncollected Emissions (tons/yr)	Flare Avg. Control Efficiency (%)	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)	Total Emissions (tons/yr)
Vinyl acetate	H182								
Vinyl bromide	H183								
Vinyl chloride	H184	7.34	62.5	0.435	0.480	98	0.0261	0.0288	0.508
Vinylidene chloride (1,1-Dichloroethylene)	H185	0.201	96.94	0.0185	0.0204	98	0.0011	0.0012	0.0216
Xylenes (isomers and mixtures)	H186	12.1	106.17	1.22	1.34	98	0.0731	0.0806	1.42
o-Xylenes	H187								
m-Xylenes	H188								
p-Xylenes	H189								
NMOC (as hexane)		595	86.17	48.6	53.6	98	2.92	3.22	56.8

Enclosed Flare Combustion Emissions

Assume:

Number of enclosed flares [1] =	3	
Stack exit diameter [2] =	4	ft
Stack gas exit velocity [2] =	32	ft/sec
Stack gas temperature [3] =	1,600	deg F
	871	deg C
Total landfill gas collected and sent to all flares =	4,675	cfm
(2 x Q_c, from page 2)	69,580,474	m^3/yr
Landfill gas sent to each flare =	1,558	cfm
(= total landfill gas collected / number of flares)	23,193,491	m^3/yr
Stack gas flow for each stack =	24,127	cfm
(calculated using gas exit diameter and velocity)	359,093,248	m^3/yr
Total stack gas flow from all flares, Q_{STACK} =	72,382	cfm
(= stack gas flow * number of flares)	1,077,279,743	m^3/yr

[1] Typcial inlet gas flow rate = 1350 scfm, provided by manufacturer of enclosed flares.
4675 cfm / 1350 cfm => 3 flares

[2] Typical stack gas flow of 19,278 cfm at typical stack gas exit velocity of 32 ft/sec give typical stack diameter of 4 ft, as provided by manufacturer of enclosed flares.

[3] Typical exit stack temperature provided by manufacturer of enclosed flares.

$$kmol_S = 2 * Q_C * \frac{Cn}{24.45} * \frac{\eta_{flare}}{100} * \frac{1}{1 \times 10^6 \text{ ppm}} \quad (3)$$

$$CM_{SO_2} = kmol_S * MW_{SO_2} * \frac{1 \text{ Mg}}{1000 \text{ kg}} \quad (4)$$

where

$kmol_S$ = kilo moles of compound produced = kilo moles of sulfur produced
Q_C = Flow rate of collected methane (m^3/yr)
Cn = Concentration of compound (ppmv)
η_{flare} = Destruction efficiency of flare = 98%
CM_{SO2} = Flare mass emissions of SO2 (Mg/yr)
MW_{SO2} = Molecular weight of SO2 = 64.058 kg/kmol

Reduced Sulfur Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight Cmpd	$kmol_S$	SO2 Flare Emissions (Mg/yr)	SO2 Flare Emissions (tons/yr)
Hydrogen Sulfide	H2S	35.5	34.08	99.0	6.34	6.99
Methyl Mercaptan		4.33	48.11	12.1	0.77	0.853
Dimethyl Sulfide		7.82	62.13	21.8	1.40	1.54
TOTAL (CM_{SO2})					**8.51**	**9.38**

$$\text{Emissions}\left(\frac{\text{Mg}}{\text{yr}}\right) = Q_{STACK} * Cn * \left(\frac{MW * \frac{298}{24.45}}{273 + T}\right) * \left(\frac{1}{1 \times 10^6 \text{ ppm}}\right) * \left(\frac{1 \text{ Mg}}{1000 \text{ kg}}\right) \quad (5)$$

where

Q_{STACK} = Flow rate of stack gas (m^3/yr)
T = Temperature of gas (deg C)

Pollutant Name	Pollutant ID Code	Conc. of Cmpd. (ppmv)	Molecular Weight	Flare Emissions M (Mg/yr)	Flare Emissions (tons/yr)
Carbon Monoxide *	CO	80	28.01	25.7	28.3
Nitrogen Oxides* (expressed as NO2)	NOX	20	46.00	10.6	11.6
Sulfur Dioxide	SO2	See Equations 3 & 4		8.51	9.38

* See Equation 5. Compound concentrations from typical enclosed flare emission data provided by manufacturer of enclosed flares.

APPENDIX I

PAVED AND UNPAVED ROADS AND EARTH MOVING OPERATIONS EMISSIONS CALCULATIONS

Emissions from Unpaved Roads
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
Date:	03/04/97		
Sheet No.	1	of	10
Job No.	12-428.44		

$$E = (k)(5.9)\left(\frac{s}{12}\right)\left(\frac{S}{30}\right)\left(\frac{W}{3}\right)^{0.7}\left(\frac{w}{4}\right)^{0.5}\left(\frac{365-p}{365}\right) \quad (1)$$

$$N_i = \left(\frac{n_i}{\sum_i^j n_i}\right)(100) \quad (2)$$

$$A = \sum_i^j (a_i)\left(\frac{N_i}{100}\right) \quad (3)$$

$$M = (E)(U)\left(\sum_i^j n_i\right)\left(\frac{1\ \text{ton}}{2000\ \text{lb}}\right) \quad (4)$$

$$C = 100 - \frac{(0.8)(P)(d)(t)}{I} \quad (5)$$

$$d = \left(\sum_i^j n_i\right)\left(\frac{1}{D}\right)\left(\frac{1}{H}\right) \quad (6)$$

where,

E = Emission factor, pounds/vehicle miles traveled (lb/VMT)
k = Particle size multiplier (dimensionless)
s = Silt content of the road surface material, %
S = Mean vehicle speed, miles per hour (mph)
W = Mean vehicle weight, tons
w = Mean number of wheels
p = Number of days with at least 0.01 inches of precipitation per year
N_i = Percentage of total traffic that is attributable to a certain type of vehicle
n_i = Number of annual trips (one way) for a certain type of vehicle
A = Weighted mean parameter (speed, weight, number of wheels, length of road traveled) for all vehicles
a_i = Parameter (speed, weight, number of vehicles, length of road traveled) for a certain type of vehicle
M = Mass of emissions, tons/yr
U = Weighted mean of length of unpaved roads traveled by all vehicles, miles
C = Average control efficiency of watering unpaved road, %
P = Potential average hourly daytime evaporation rate, mm/hr
d = Average hourly daytime traffic rate, 1/hr
t = Time between water applications, hr
I = Application intensity, L/m^2
D = Number of operating days per year
H = Number of operating hours per operating day

Comp. by:	L. Racz
Chk. by:	B. Balchunas
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Assumptions:

k_{pm}[1] =	0.8	
k_{pm10} =	0.36	
s[2] =	10	%
p =	126	days
P[3] =	0.216	mm/hr
t =	2	hr
I* =	0.91	L/m² (=0.2 gal/yd²)
D =	309	days
H =	10	hr

Notes:
[1] For PM (aerodynamic diameter less than 30 um): k = 0.8
For PM-10 (aerodynamic diameter less than 10 um): k = 0.36
[2] s, Mean silt content:
[3] From Southeast Regional Climate Center monthly statistics for Glades County, Florida.
* From Bee Ridge Landfill operations data.

Road Type	s, %
Gravel	5
Limestone	10
Dirt	28
Other*	

* Explain:

Vehicle Type	Trips per Year (One Way)	Vehicle Speed, mph	Loaded Weight, tons	Unloaded Weight, tons	Number of Wheels	Miles of Unpaved Road/Trip
Bulldozers	618	5	40.5	40.5	4	0.25
Bulldozer	309	5	14.7	14.7	4	0.25
Compactors	618	5	34.9	34.0	4	0.25
Off-road Trucks	600	25	42.2	18.8	6	0.5
Scraper (Pan)	600	25	70.0	0.3	4	0.5
Front-end Loaders	927	15	22.2	18.2	4	0.25
Farm Tractors	618	25	4.0	4.0	4	0.25
Pickup Trucks	4,000	25	4.3	2.3	4	0.5
Broncos	1,236	25	2.2	2.2	4	0.5
Pugs	1,000	10	0.7	0.4	6	0.5
Fuel Truck	618	20	17.5	10.3	6	0.5
Excavator	309	5	33.8	29.8	4	0.25
Mowers [1]	309	10	0.9	0.9	4	0.1
Transfer Trucks	4,944	25	36.3	17.3	18	0.5
Roll Offs	27,192	25	19.6	15.2	10	0.5
Front Loaders	4,944	25	32.4	18.4	10	0.5
Rear Loaders	25,338	25	23.6	16.4	10	0.5
Dump Trucks	14,214	25	8.0	5.9	10	0.5
Pickups/Misc	51,912	25	3.6	2.0	4	0.5

Comp. by:	L. Racz		
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Averaging Calculations:

Vehicle Type	Trips per Year (One Way), n_i	Percent of Total Trips, N_i
Bulldozers	618	0.44
Bulldozer	309	0.22
Compactors	618	0.44
Off-road Trucks	600	0.43
Scraper (Pan)	600	0.43
Front-end Loaders	927	0.66
Farm Tractors	618	0.44
Pickup Trucks	4,000	2.85
Broncos	1,236	0.88
Pugs	1,000	0.71
Fuel Truck	618	0.44
Excavator	309	0.22
Mowers [1]	309	0.22
Transfer Trucks	4,944	3.52
Roll Offs	27,192	19.38
Front Loaders	4,944	3.52
Rear Loaders	25,338	18.06
Dump Trucks	14,214	10.13
Pickups/Misc	51,912	37.00
TOTAL, sum(n_i)	**140,306**	

See Equation (2).

Vehicle Type	Vehicle Speed, mph	Contribution to S, mph
Bulldozers	5	0.02
Bulldozer	5	0.01
Compactors	5	0.02
Off-road Trucks	25	0.11
Scraper (Pan)	25	0.11
Front-end Loaders	15	0.10
Farm Tractors	25	0.11
Pickup Trucks	25	0.71
Broncos	25	0.22
Pugs	10	0.07
Fuel Truck	20	0.09
Excavator	5	0.01
Mowers [1]	10	0.02
Transfer Trucks	25	0.88
Roll Offs	25	4.85
Front Loaders	25	0.88
Rear Loaders	25	4.51
Dump Trucks	25	2.53
Pickups/Misc	25	9.25
MEAN VEHICLE SPEED, S, (mph)	**24.51**	

See Equation (3).

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Vehicle Type	Loaded Weight, tons	Unloaded Weight, tons	Average Weight, tons	Contribution to W, tons
Bulldozers	40.5	40.5	40.5	0.18
Bulldozer	14.7	14.7	14.7	0.03
Compactors	34.9	34.0	34.5	0.15
Off-road Trucks	42.2	18.8	30.5	0.13
Scraper (Pan)	70.0	0.3	35.1	0.15
Front-end Loaders	22.2	18.2	20.2	0.13
Farm Tractors	4.0	4.0	4.0	0.02
Pickup Trucks	4.3	2.3	3.3	0.09
Broncos	2.2	2.2	2.2	0.02
Pugs	0.7	0.4	0.6	0.00
Fuel Truck	17.5	10.3	13.9	0.06
Excavator	33.8	29.8	31.8	0.07
Mowers [1]	0.9	0.9	0.9	0.00
Transfer Trucks	36.3	17.3	26.8	0.94
Roll Offs	19.6	15.2	17.4	3.37
Front Loaders	32.4	18.4	25.4	0.90
Rear Loaders	23.6	16.4	20.0	3.61
Dump Trucks	8.0	5.9	7.0	0.70
Pickups/Misc	3.6	2.0	2.8	1.04
MEAN VEHICLE WEIGHT, W (tons)				**11.61**

See Equation (3).

Vehicle Type	Number of Wheels	Contribution to w
Bulldozers	4	0.02
Bulldozer	4	0.01
Compactors	4	0.02
Off-road Trucks	6	0.03
Scraper (Pan)	4	0.02
Front-end Loaders	4	0.03
Farm Tractors	4	0.02
Pickup Trucks	4	0.11
Broncos	4	0.04
Pugs	6	0.04
Fuel Truck	6	0.03
Excavator	4	0.01
Mowers [1]	4	0.01
Transfer Trucks	18	0.63
Roll Offs	10	1.94
Front Loaders	10	0.35
Rear Loaders	10	1.81
Dump Trucks	10	1.01
Pickups/Misc	4	1.48
MEAN NUMBER WHEELS, w		**7.59**

See Equation (3).

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Vehicle Type	Miles of Unpaved Road Traveled	Contribution to U
Bulldozers	0.25	0.0011
Bulldozer	0.25	0.0006
Compactors	0.25	0.0011
Off-road Trucks	0.5	0.0021
Scraper (Pan)	0.5	0.0021
Front-end Loaders	0.25	0.0017
Farm Tractors	0.25	0.0011
Pickup Trucks	0.5	0.0143
Broncos	0.5	0.0044
Pugs	0.5	0.0036
Fuel Truck	0.5	0.0022
Excavator	0.25	0.0006
Mowers [1]	0.1	0.0002
Transfer Trucks	0.5	0.0176
Roll Offs	0.5	0.0969
Front Loaders	0.5	0.0176
Rear Loaders	0.5	0.0903
Dump Trucks	0.5	0.0507
Pickups/Misc	0.5	0.1850
MEAN MILES TRAVELED, U	**0.49**	See Equation (3).

Emissions Calculations for Unpaved Roads:

PM Emissions:			**PM-10 Emissions:**		
k =	0.8		k =	0.36	
s =	10	%	s =	10	%
S =	24.51	mph	S =	24.51	mph
W =	11.61	tons	W =	11.61	tons
w =	7.59	wheels	w =	7.59	wheels
p =	126	days	p =	126	days
E =	7.47	lb/VMT	E =	3.36	lb/VMT
U =	0.49	miles	U =	0.49	miles
Sum n_i =	140,306	vehicles	Sum n_i =	140,306	vehicles
Uncontrolled PM Emissions =	**258.50**	**tons/yr**	**Uncontrolled PM-10 Emissions =**	**116.32**	**tons/yr**
P =	0.216	mm/hr	P =	0.216	mm/hr
t =	2	hr	t =	2	hr
I =	0.91	L/m²	I =	0.91	L/m²
D =	309	days	D =	309	days
H =	10	hours	H =	10	hours
d =	45.41	1/hr	d =	45.41	1/hr
C =	82.76	%	C =	82.76	%
Controlled PM Emissions =	**44.58**	**tons/yr**	**Controlled PM-10 Emissions =**	**20.06**	**tons/yr**

Emissions from Paved Roads
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
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$$E = (k)\left(\frac{sL}{2}\right)^{0.65}\left(\frac{W}{3}\right)^{1.5} \quad (7)$$

$$M = (E)(R)\left(\sum_{i}^{j} n_i\right)\left(\frac{1\ \text{ton}}{2000\ \text{lb}}\right) \quad (8)$$

where,

E = Emission factor, pounds/vehicle miles traveled (lb/VMT)
k = Particle size multiplier (dimensionless)
sL = Road surface silt loading, g/m²
W = Mean vehicle weight, tons
M = Mass of emissions, tons/yr
R = Weighted mean of length of paved roads traveled by all vehicles, miles
n_i = Number of annual round trips on paved roads for a certain type of vehicle

Assumptions:

k_{pm}[3] =	0.082	
k_{pm10} =	0.016	
sL * =	7.4	g/m²
W ** =	11.61	tons

Notes:
[3] For PM (aerodynamic diameter less than 30 um): k = 0.082
For PM-10 (aerodynamic diameter less than 10 um): k = 0.016

* Average silt loading for MSW landfills is 7.4 g/m².
** See page 4 (Unpaved Roads) for value.

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Vehicle Type	Trips per Year (One Way)	Percent of Total Trips
Bulldozers	618	0.44
Bulldozer	309	0.22
Compactors	618	0.44
Off-road Trucks	600	0.43
Scraper (Pan)	600	0.43
Front-end Loaders	927	0.66
Farm Tractors	618	0.44
Pickup Trucks	4,000	2.85
Broncos	1,236	0.88
Pugs	1,000	0.71
Fuel Truck	618	0.44
Excavator	309	0.22
Mowers [1]	309	0.22
Transfer Trucks	4,944	3.52
Roll Offs	27,192	19.38
Front Loaders	4,944	3.52
Rear Loaders	25,338	18.06
Dump Trucks	14,214	10.13
Pickups/Misc	51,912	37.00
TOTAL, n_i	**140,306**	

See Equation (2).

Comp. by:	L. Racz
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Vehicle Type	Miles of Paved Road Traveled	Contribution to R
Bulldozers	0	0.000
Bulldozer	0	0.000
Compactors	0	0.000
Off-road Trucks	0	0.000
Scraper (Pan)	0	0.000
Front-end Loaders	0	0.000
Farm Tractors	0	0.000
Pickup Trucks	1.2	0.034
Broncos	1.2	0.011
Pugs	0.5	0.004
Fuel Truck	0.5	0.002
Excavator	0	0.000
Mowers [1]	0	0.000
Transfer Trucks	1.2	0.042
Roll Offs	1.2	0.233
Front Loaders	1.2	0.042
Rear Loaders	1.2	0.217
Dump Trucks	1.2	0.122
Pickups/Misc	1.2	0.444
MEAN MILES TRAVELED, U		**1.15**

See Equation (3).

Emissions Calculations for Paved Roads:

PM Emissions:

k =	0.082	
sL =	7.4	g/m²
W =	11.61	tons
E =	1.46	lb/VMT
R =	1.15	miles
Sum n_i =	140,306	vehicles
PM Emissions =	**117.85**	**tons/yr**

PM-10 Emissions:

k =	0.016	
sL =	7.4	g/m²
W =	11.61	tons
E =	0.29	lb/VMT
R =	1.15	miles
Sum n_i =	140,306	vehicles
PM-10 Emissions =	**23.00**	**tons/yr**

Emissions from Earth Moving Operations
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
Date:	03/04/97		
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Note: General emission factors are given in the following calculations.

A. Total potential dust emissions from topsoil removal/daily cover:

Tons topsoil removed/yr (avg.), A1[1]=	150,600
Tons topsoil daily cover (avg.), A2[1] =	150,600
Tons of dust emissions per tons of topsoil removed or covered, A3* =	6E-05
(A1 + A2) x (A3) =	**18.07 tons/yr**

B. Total potential dust emissions from dozers onsite:

Number of dozers (avg.), B1 =	3
Hr/day of dozer opr. (avg), B2[2] =	7.8
Total opr. days/yr (OD), B3 =	309
Tons of dust emissions per dozer hr, B4* =	1.6E-02
B1 x B2 x B3 x B4 =	**115.69 tons/yr**

C. Overburden drilling potential dust emissions:

Number of holes drilled/yr (avg.), C1 =	
Tons of dust emissions per hole drilled, C2* =	7.5E-04
C1 x C2 =	**0.00 tons/yr**

D. Blasting potential dust emissions:

Tons/yr of overburden removed (avg.), D1 =	
Tons of dust emissions per tons of overburden removed, D2* =	6E-04
D1 x D2 =	**0.00 tons/yr**

E. Overburden removal dust emissions:

Tons/yr of overburden removed (avg.), E1 =	
Tons of dust emissions per tons of overburden removed, E2* =	1.85E-05
E1 x E2 =	**0.00 tons/yr**

F. Overburden truck dumping potential dust emissions:

Tons/yr of overburden dumped (avg.), F1 =	
Tons of dust emissions per tons of overburden dumped, F2* =	4.00E-06
F1 x F2 =	**0.00 tons/yr**

G. Road maintenance potential dust emissions:

Hr/day road maintenance (avg.), G1[3]	0.83
Total opr. days/yr (OD), G2 =	309
Tons of dust emissions per dozer hour opr., G3* =	1.60E-02
G1 x G2 x G3 =	**4.12 tons/yr**

TOTAL =	**137.88 tons/yr**

[1] Assume topsoil emissions similar to emissions from soil stockpile. From data provided by county:
650 yd^3 soil/day * 110 lb/ft^3 * 27 ft^3/yd^3 * 3 days/week * 52 weeks/yr * 1 ton/2000 lb = 150,600 tons soil/yr

[2] 23.5 hours /3 dozers = 7.8 hours/dozer

[3] 5 hours/week maintenance * 1week/6 operating days = 0.83 hours/day

* Emission factors from AP-42 construction operations.

Summary of Dust Emissions
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
Date:	03/04/97		
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Uncontrolled Emissions

Total Potential PM Emissions			
From Unpaved Roads =	258	tons/yr	
From Paved Roads =	118	tons/yr	
From Earth Moving Operations =	138	tons/yr	
Total Potential PM Emissions =	**514**	**tons/yr**	
Total Potential PM-10 Emissions			
From Unpaved Roads =	116	tons/yr	
From Paved Roads =	23.0	tons/yr	
From Earth Moving Operations =	50	tons/yr	(=36% of total potential PM emissions)
Total Potential PM-10 Emissions =	**189**	**tons/yr**	
Total Actual PM Emissions			
From Unpaved Roads =	129	tons/yr	(=50% of potential PM emissions)
From Paved Roads =	59	tons/yr	(=50% of potential PM emissions)
From Earth Moving Operations =	69	tons/yr	(=50% of potential PM emissions)
Total Actual PM Emissions =	**257**	**tons/yr**	
Total Actual PM-10 Emissions			
From Unpaved Roads =	58	tons/yr	(=50% of potential PM-10 emissions)
From Paved Roads =	11.5	tons/yr	(=50% of potential PM-10 emissions)
From Earth Moving Operations =	25	tons/yr	(=50% of potential PM-10 emissions)
Total Actual PM-10 Emissions =	**94**	**tons/yr**	

Controlled Emissions - Road Watering Every Two Hours

Total Potential PM Emissions			
From Unpaved Roads =	45	tons/yr	
From Paved Roads =	118	tons/yr	
From Earth Moving Operations =	138	tons/yr	
Total Potential PM Emissions =	**300**	**tons/yr**	
Total Potential PM-10 Emissions			
From Unpaved Roads =	20	tons/yr	
From Paved Roads =	23.0	tons/yr	
From Earth Moving Operations =	50	tons/yr	(=36% of total potential PM emissions)
Total Potential PM-10 Emissions =	**93**	**tons/yr**	
Total Actual PM Emissions			
From Unpaved Roads =	22	tons/yr	(=50% of potential PM emissions)
From Paved Roads =	59	tons/yr	(=50% of potential PM emissions)
From Earth Moving Operations =	69	tons/yr	(=50% of potential PM emissions)
Total Actual PM Emissions =	**150**	**tons/yr**	
Total Actual PM-10 Emissions			
From Unpaved Roads =	10	tons/yr	(=50% of potential PM-10 emissions)
From Paved Roads =	11.5	tons/yr	(=50% of potential PM-10 emissions)
From Earth Moving Operations =	25	tons/yr	(=50% of potential PM-10 emissions)
Total Actual PM-10 Emissions =	**46**	**tons/yr**	

APPENDIX J

YARD WASTE COMPOST AREA
EMISSIONS CALCULATIONS

Surface Area on Compost Windrows
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
Date:	03/03/97		
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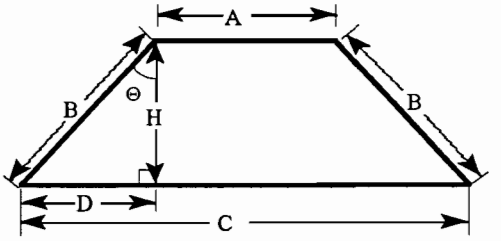
Average cross-section of windrow:



Average surface area of windrow:

$$D = \frac{C - A}{2} \qquad (1)$$

$$\tan \Theta = \frac{D}{H} \qquad (2)$$

$$B = \frac{D}{\sin \Theta} \qquad (3)$$

$$S = 2(L)(B) + (L)(A) \qquad (4)$$

$$TS = (S)(N) \qquad (5)$$

where:

S = average surface area of windrow, ft²
L = average length of windrow, ft
TS = total surface area of all windrows, ft²
N = number of windrows

Assumptions:

A =	2	ft
C =	25	ft
H =	10	ft
L =	300	ft
N =	70	

Calculations:

D =	11.5	ft
Θ =	48.99	degrees
B =	15.2	ft
S =	9,744	ft²
TS =	**682,070**	**ft²**
TS =	**63,366**	**m²**

Compost Air Flow from Natural Ventilation
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz		
Chk. by:	B. Balchunas		
Date:	03/03/97		
Sheet No.	2	of	3
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Adapted from "Compost Engineering, Principles and Practice", by R.T. Haug, 1980
pp. 214, 218, 247-275 and Appendix III

$$\frac{1}{G_s} = \frac{V_s}{G_v} + \frac{(1-V_s)}{G_f} \qquad (6)$$

$$f = 1 - \frac{\gamma_m S_m}{G_m \gamma_w} - \frac{\gamma_m (1-S_m)}{\gamma_w} \qquad (7)$$

$$Q = 2.72 \times 10^6 \, f\left(\frac{f}{1-f}\right)^2 r^2 \, \Delta\rho \qquad (8)$$

$$F = (Q)(TS) \qquad (9)$$

where,

G_s	=	specific gravity of total solids
V_s	=	volatile fraction of total solids
G_v	=	specific gravity of volatile fraction
G_f	=	specific gravity of fixed or ash fraction
f	=	fraction of total mixture volume
γ_m	=	unit weight of mixture
S_m	=	fractional solids content of mixture
G_m	=	specific gravity of mixture
γ_w	=	unit weight of water
Q	=	ventilation rate, $cm^3/sec \cdot m^2$
r	=	particle radius, cm
$\Delta\rho$	=	density difference between fluid inside and outside compost
F	=	ventilation rate, cm^3/sec
TS	=	total surface area of all windrows, m^2

Assumptions:

Characteristics specific to Sarasota yard waste compost:

r	=	0.01	cm
TS	=	63,366	m^2

General characteristics of yard waste compost:

V_s	=	0.8	fraction (typical value used in Ch. 8 of above reference)
γ_m	=	0.65	g/cm^3 (average of values on p. 262 of above reference)
S_m	=	0.5	fraction (typical value used in Ch. 8 of above reference)
γ_w	=	1.0	g/m^3
Gs	=	Gm	
G_v	=	1.0	(from p. 214 of above reference)
G_f	=	2.5	(from p. 214 of above reference)
$\Delta\rho$	=	0.22	g/l (from p. 271 of above reference)

Calculations:

G_s	=	1.14	
f	=	0.389	
Q	=	9.44	$cm^3/sec\text{-}m^2$
F	**=**	**597,884**	**cm^3/sec**
F	**=**	**1,267**	**ft^3/min**

Compost Emissions
Sarasota County: Central County Solid Waste Disposal Complex

Comp. by:	L. Racz
Chk. by:	B. Balchunas
Date:	03/03/97
Sheet No.	3 of 3
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Adapted from Brian D. Eitzer, "Emissions of Volatile Organic Chemicals from Municipal Solid Waste Composting Facilities," Environmental Science & Technology, 29:896 (1995). Compound concentrations used are the maximum of the average concentrations over several stages of the composting process.

Assumed Air flow rate (cfm) =	1,267

Total VOC Compost Emissions (1)

Compound	Maximum Observed Average Concentration, ug/m³	Mass of Emissions, tons/yr (2)	Florida Title V HAP ID Code (3)
Benzene	150	0.003	H017
2-Butanone	36,000	0.75	H120
n-Butylbenzene	47	0.001	
sec-Butylbenzene	15	3.1E-04	
Carbon disulfide	9	1.9E-04	H032
Carbon tetrachloride	58	0.001	H033
Chlorobenzene	2	4.2E-05	H041
Chloroform	7	1.5E-04	H043
4-Chlorotoluene	25	0.001	
1,4-Dichlorobenzene	6	1.2E-04	H061
Ethylbenzene	38,100	0.79	H085
Hexachlorobutadiene	0.1	2.1E-06	H099
2-Hexanone	1,700	0.035	
Isopropyl benzene (Cumene)	51	0.001	H053
p-Isopropyl toluene	280	0.006	
Methylene chloride	25	0.001	H128
4-Methyl-2-pentanone	1,500	0.031	
Naphthalene	340	0.007	H132
n-Propyl benzene	130	0.003	
Styrene	260	0.005	H163
Tetrachloroethene	360	0.007	H167
Toluene	11,500	0.24	H169
1,2,3-Trichlorobenzene	0.1	2.1E-06	
1,2,4-Trichlorobenzene	1	2.1E-05	H174
1,1,1-Trichloroethane	2,300	0.048	H119
Trichloroethene	98	0.002	H176
1,2,4-Trimethylbenzene	390	0.008	
1,3,5-Trimethylbenzene	610	0.013	
m,o-Xylene	3,700	0.077	H188
p-Xylene	1,600	0.033	H189
TOTAL VOCs, tons/yr (4) =		**1.9**	
FLORIDA TOTAL HAPs, tons/yr (5) =		**2.0**	

(1) Assumes yard waste compost emissions are similar to MSW compost emissions.
(2) Mass of emissions (tons/yr) = (ug/m3)*(flow rate f3/min)*(0.0283 m3/ft3)*(525,389 min/yr) / [(907,185 g/ton)*(1,000,000 ug/g)]
(3) Florida Title V HAP Pollutant ID Code indicated only for Florida Title V compounds.
(4) Title V threshold = 100 tons/yr.
(5) Title V threshold = 10 tons/yr single HAP;
Title V threshold = 25 tons/yr total HAPs.