

SECTION 4. APPENDICES

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Citation Formats and Glossary of Common Terms

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number for that county
“001” identifies the specific permit project number
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor source federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System (DEP database)

BACT: best available control technology

bhp: brake horsepower

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

SECTION 4. APPENDIX A

Citation Formats and Glossary of Common Terms

CFR: Code of Federal Regulations	NESHAP: National Emissions Standards for Hazardous Air Pollutants
CAA: Clean Air Act	NO_x: nitrogen oxides
CMS: continuous monitoring system	NSPS: New Source Performance Standards
CO: carbon monoxide	O&M: operation and maintenance
CO₂: carbon dioxide	O₂: oxygen
COMS: continuous opacity monitoring system	Pb: lead
DARM: Division of Air Resource Management	PM: particulate matter
DEP: Department of Environmental Protection	PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less
Department: Department of Environmental Protection	ppm: parts per million
dscf: dry standard cubic feet	ppmv: parts per million by volume
dscfm: dry standard cubic feet per minute	ppmvd: parts per million by volume, dry basis
EPA: Environmental Protection Agency	QA: quality assurance
ESP: electrostatic precipitator (control system for reducing particulate matter)	QC: quality control
EU: emissions unit	PSD: prevention of significant deterioration
F.A.C.: Florida Administrative Code	psi: pounds per square inch
F.A.W.: Florida Administrative Weekly	PTE: potential to emit
F.D.: forced draft	RACT: reasonably available control technology
F.S.: Florida Statutes	RATA: relative accuracy test audit
FGD: flue gas desulfurization	RBLC: EPA's RACT/BACT/LAER Clearinghouse
FGR: flue gas recirculation	SAM: sulfuric acid mist
Fl: fluoride	scf: standard cubic feet
ft²: square feet	scfm: standard cubic feet per minute
ft³: cubic feet	SIC: standard industrial classification code
gpm: gallons per minute	SIP: State Implementation Plan
gr: grains	SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
HAP: hazardous air pollutant	SO₂: sulfur dioxide
Hg: mercury	TPD: tons/day
I.D.: induced draft	TPH: tons per hour
ID: identification	TPY: tons per year
kPa: kilopascals	TRS: total reduced sulfur
lb: pound	UTM: Universal Transverse Mercator coordinate system
MACT: maximum achievable technology	VE: visible emissions
MMBtu: million British thermal units	VOC: volatile organic compounds
MSDS: material safety data sheets	
MW: megawatt	

SECTION 4. APPENDIX B

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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General Conditions

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - (a) The date, exact place, and time of sampling or measurements;
 - (b) The person responsible for performing the sampling or measurements;
 - (c) The dates analyses were performed;
 - (d) The person responsible for performing the analyses;
 - (e) The analytical techniques or methods used;
 - (f) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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Common Conditions

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. Notification may be submitted by electronic mail to nwdair@dep.state.fl.us. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. No emission control devices or systems are ordered at this time. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. The following were determined by Permittee to be appropriate for this facility:

Pursuant to Rule 62-296.320, F.A.C., the County will undertake all reasonable actions to prevent the emission of particulate matter above the amounts stipulated in Table 296.320-1 of the referenced rule. Particulate matter emissions from the Central Landfill are expected to be minimal. The landfill will continue to monitor established vegetation growth on the cap. If a high volume of traffic is expected, the County will spray roads with water to prevent dust from escaping. Any on-site construction projects will utilize best management practices in preventing fugitive emissions. [Rule 62-296.320(4)(c), F.A.C.]

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Common Conditions

RECORDS AND REPORTS

10. Emissions Computation and Reporting:

- a. *Applicability.* This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]
- b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
 - (1) *Basic Approach.* The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
 - (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
 - (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
 - (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
 - (2) *Continuous Emissions Monitoring System (CEMS).*
 - (a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
 - 1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
 - 2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
 - (b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
 - 1) A calibrated flow meter that records data on a continuous basis, if available; or
 - 2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - (c) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.

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- (3) Mass Balance Calculations.
- (a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
 - 1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
 - 2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
 - (b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
 - (c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- (4) Emission Factors.
- a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
 - 1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - 2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
 - 3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
 - b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

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- (7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility - NOT REQUIRED FROM THIS FACILITY*

- (1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:
 - a. All Title V sources.
 - b. All synthetic non-Title V sources.
 - c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.
 - d. All facilities for which an annual operating report is required by rule or permit.
- (2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.
- (3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.
- (4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.
- (5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

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

ADDITIONAL CONDITIONS

11. Stack Sampling

Permittee shall install and maintain permanent stack sampling facilities, including sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet requirements of Rule 62-297.310(6), F.A.C., and any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. [Rule 62-297.310(6), F.A.C.]

12. The applicant shall retain a Professional Engineer, registered in the State of Florida, for the inspection of this project. Upon completion the engineer shall inspect for conformity to the permit application and associated documents.

[Rules 62.4-030, 62-4.050(3), and 62-210.300(1)(a) & (2), F.A.C.]

13. Application for Non-Title V Permit: An application for an operation permit shall be submitted with the compliance test results and appropriate fee when applicable. These are to be submitted within 75 days after initial operation. The permittee shall obtain an operating permit for this source before the expiration of the construction permit if the permittee desires to continue operation. You can obtain a permit application form or apply for permit renewal electronically at the following web address: <http://www.dep.state.fl.us/air/emission/permitting.htm>. [Rules 62.4-030

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and 62-210.300(1)(a) & (2), F.A.C.]

14. The Department shall be notified upon commencement of construction. Notification may be submitted by electronic mail to nwdair@dep.state.fl.us and copied to the permitting authority at epost_nwdwasteair@dep.state.fl.us. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction. Projects beyond one year require annual status reports. [Rule 62-4.030, F.A.C.]
15. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is 850/595-0578, day or night, and for emergencies involving a significant threat to human health or the environment is 800/320-0519. For routine business, telephone 850/595-8300, then press 3, during normal working hours. [Rules 62-210.700 and 62-4.130, F.A.C.]

SECTION 4. APPENDIX D
Common Testing Requirements

Unless otherwise specified in the permit, the following testing requirements apply to all emissions units at the facility.

COMPLIANCE TESTING REQUIREMENTS

1. **Operating Rate During Testing:** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]

2. **Applicable Test Procedures - Opacity Compliance Tests:** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be 60 minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and 30 minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be 12 minutes.

[Rule 62-297.310(4), F.A.C.]

3. **Determination of Process Variables:**

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

4. **Frequency of Compliance Tests:** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

a. *General Compliance Testing.*

- 1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
- 2. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing

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an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
 - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
3. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for visible emissions, if there is an applicable standard.
 4. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. Notification of compliance testing may be submitted by electronic mail to nwdair@dep.state.fl.us.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide one copy of a report on the results of said tests to the Department. Test reports may be submitted by electronic mail to nwdair@dep.state.fl.us.

[Rule 62-297.310(7), F.A.C.]

RECORDS AND REPORTS

5. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. One copy of the required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. Test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the following information.
 - a. The type, location, and designation of the emissions unit tested.
 - b. The facility at which the emissions unit is located.
 - c. The owner or operator of the emissions unit.
 - d. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - e. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - f. The date, starting time and end time of the observation.
 - g. The test procedures used.
 - h. The names of individuals who furnished the process variable data, conducted the test, and prepared the report.
 - i. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
 - j. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

Operation and Maintenance Plan

Described below are the procedures and practices developed for the operations and maintenance of the landfill gas collection and flaring system to minimize potential air emissions from the landfill. This facility is not required to install a gas collection and control system per 40 CFR 60 Subpart WWW at this time. This Operation and Maintenance Plan may be amended in the operation permit application once the flare is installed.

Landfill Gas Collection System

Under normal operating procedures, the landfill gas collection system operates automatically without intervention by landfill staff. At a minimum, gas collection wells and components are monitored monthly to verify that the system is operating within design parameters. Based on the results of the monthly monitoring, the system is adjusted to maximize the collection of landfill gas and to minimize the off-site migration of landfill gas.

Every month each of the landfill gas extraction wells will be sampled. The landfill gas will also be sampled at the point in the extraction system pipes leading into the flare and at a point at the flare itself. The gas composition, static pressure, differential pressure, flow and temperatures at each of the well locations and points are recorded using the GEM 2000. The flare temperature and total gas flow at the flare reported by the flare computer are recorded electronically. In order to minimize the amount of air pulled into the system, it may be necessary to close some of the extraction wells. As a result, not all of the wells may be sampled on a monthly basis.

The data recorded using the GEM 2000 is reported in tabular form on a monthly basis. If the gas composition indicates high levels of oxygen or nitrogen in the gas, the valve should be turned down. This would lower the flow at the well and lessen the amount of air that may be drawn into the system. If the static pressure at the well is positive, then the valve setting should be turned up, effectively increasing the flow at the well. The valve settings should be adjusted in small increments in order to decrease the possibility of improving gas composition while causing the pressure to become positive, or visa versa.

Landfill Gas Control System (Flare)

Under normal operating procedures, the landfill gas flare operates automatically, without intervention by landfill staff. The proposed flare system will operate automatically as it does under normal operating procedures. Detailed operation of the proposed flare system is covered in the SSM Plan. Note that the flare will be equipped with digital flow meter and gas analyzer to record the landfill gas flow rate, total landfill gas to flare and flame temperature – the parameters that monitor operation of the flare. These parameters will be manually recorded as well during the monthly gas collection system monitoring. Manufacturers recommended maintenance activities and frequencies will be followed for maintenance of the flare.

STARTUP/SHUTDOWN/MALFUNCTION PLAN

Pursuant to state and federal regulations (CFR 40-63.6 (e) (3)) Santa Rosa County has developed a startup, shutdown, malfunction (SSM) Plan for the landfill gas flare system.

SYSTEM EQUIPMENT

The flare station will be designed and constructed for the controlled combustion of landfill gas. During this process, the combustion temperature is controlled to ensure the efficient removal of pollutants and prevent their release in the atmosphere. The major components of the flare system are listed below.

Control Panels

The Flare is equipped with a Main Control Panel and a Main Power Panel. The main control and the main power panels are mounted together on a pedestal on one side of the flare operation skid.

- The main control panel houses the components that control the operation of the flare and provides the signaling capability to other areas as to the status of the flare operation.
- The main power panel houses the disconnect switch along with high voltage electrical connections, protection, and control devices.

Programmable Logic Controller (PLC)

The PLC monitors the parameters of the process and automatically controls the operation of the flare system. Sensors and instruments within the flare system are attached to the input modules of the PLC while the control devices and actuators are attached to the output modules of the PLC. The PLC has been programmed to safely operate the flare system based on operator selections and process input parameters as measured by the sensing instruments.

Flame Safeguard System

The Flame Safeguard System is programmed to safely operate the flare system based on process input parameters as measured by the sensing instruments. The flame safeguard system consists of the flame safeguard control in conjunction with a flame detection sensor. The flame safeguard controls the ignition system, pilot fuel solenoid valve(s), and landfill gas valve(s). The flame detection sensor detects the presence of flame and provides this signal to the flame safeguard for safe operation of the combustion process.

Alarm Indicator

An alarm indicator will be mounted to the main control panel. It serves to inform system operators of conditions which may lead to an automatic shutdown of the system.

Pilot Assembly

The pilot assembly provides a fuel source to ignite the burner during flare start-up. The pilot assembly consists of fuel tanks, instrumentation, spark generator, and igniter.

Landfill Gas Inlet Valve

The landfill gas inlet valve is pneumatically and electronically controlled and controls the flow of landfill gas to the burner. It operates in a fail-safe manner to close and prevent the release of landfill gas upon loss of power or other shutdown alarm conditions.

Thermocouple

A thermocouple is installed at the upper part of the stack to provide temperature-indicating signals to the temperature controller, via a temperature transmitter within the ignition enclosure mounted lower on the candle supports.

Blower

The blower provides the means to extract, under negative pressure, the LFG from the landfill. The gas compresses and is discharged into the flare to be disposed of by controlled combustion.

Knockout Pot (KO Pot)

The KO Pot provides moisture and particulate separation and collection of the incoming LFG from the field.

Flow Meter

The flow rate of the flare is monitored by an orifice plate flow meter and the data is transmitted to the chart recorder for display and data storage.

OPERATION

- The Flare system is electrically activated and automatically enters a standby mode when the main disconnect switch is turned on.
- The flare system is designed for manual or automatic start.
- Selection of manual or automatic start is made via the "TIME-OFF-AUTO" selector switch.
- The default condition for the Flare system is for automatic start.

STARTUP PROCEDURE

For the purposes of this SSM Plan, a "Startup" will be defined as the setting in operation of the flare system.

The manual start-up process is initiated by momentarily pressing the "PUSH TO START" button on the main control panel. The automatic startup is initiated via an electronic start-up signal. Upon startup initiation the flare system executes the following sequences prior to switching to its normal mode of operation.

Pilot Ignition Cycle

1. The pilot solenoid valve and the igniter are automatically and simultaneously activated in order to establish a pilot flame inside the stack.
2. There is a 10 second window in which the pilot flame has to be established by its detection by the flame detection sensor.
3. If the flame detection sensor does not detect a flame, the system enters a "Start-up Flame Failure" mode and automatically shuts down.
4. Once the "Start-up Flame Failure" mode is entered, the pilot is automatically turned off after the expiration of the programmed time period.

Landfill Gas Inlet Valve Opening and Blower Activation

1. Once the pilot flame is established the landfill gas valve is automatically opened, and the blower motor is started.
2. The tripping of the limit switch within the pneumatic actuator is a sign of proper operating conditions.
3. The flare enters normal operating mode once the blower has started.

NORMAL OPERATION

- The flame detection sensor continuously monitors the presence of flame.
- The thermocouple monitors the flame temperature.
- The chart recorder continuously records operating parameters (temperature, flow rate, etc.).

- The flare system will continue to operate normally until abnormal conditions are encountered. Abnormal conditions include loss of flame, high or low temperature, or system component failure.
- Abnormal operating conditions will cause the system to automatically execute a shutdown procedure and will activate the alarm annunciator.

SHUTDOWN PROCEDURE

For the purposes of this SSM Plan, a "Shutdown" will be defined as the cessation of operation of the flare system for any purpose.

Manual system shutdown can be accomplished by:

1. Pushing the emergency shutdown switch.
2. Changing the position of the "Time-Off-Auto" switch to "off."

Automatic system shutdown occurs when the system encounters and senses abnormal operating conditions

During system shutdown the following actions occur:

1. The gas inlet valve is closed
2. The gas pilot valve is closed
3. The alarm annunciator panel will display the reason for the shutdown.

MALFUNCTION PROCEDURES

For the purposes of this SSM Plan, a "Malfunction" will be defined as any sudden, infrequent, and not reasonably preventable failure of the flare system. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

All malfunction events must be recorded (see: the SSM event form) and reporting requirements must be followed. Reporting requirements differ based on whether the actions taken to correct a malfunction were consistent or inconsistent with the SSM Plan. Reference the reporting section of the SSM Plan for these requirements.

SSM EVENT 1

SSM Event Power spiking of the flare electrical system.

SSM Event Description:

SSM Event Power supply to the flare system is interrupted due to lightening or electrical system surges that cause the flare system to sense abnormal operating conditions. This event will cause an automatic shutdown of the flare system. Corrective Once the flare system has completely executed the Action automatic shutdown process and system parameters (Le., temperature) have

returned to acceptable values, the flare system will enter automatic startup mode. If the automatic startup process is unable to re-initiate operation of the flare, the system will enter the "Startup Flame Failure Mode". Once the system enters this mode a manual restart of the system is required (see Startup Procedure of this SSM Plan).

SSM EVENT 2

SSM Event Condensate buildup in the flare system components

SSM Event Description

Condensate buildup in the flare system components or the landfill gas line leading to the flare system. Buildup of condensate in the Knockout Pot or the landfill gas line or sump leading to flare system will prevent landfill gas from reaching the flare for combustion.

Corrective Action

Initiate a shutdown of the flare system. Investigate the liquid levels via the sight-glass in the water trap and KO Pot that trap and collect condensate from the landfill gas collection system. If the liquid levels are significant, open the drain valves and allow the fluid to drain from the system components. Initiate the flare startup procedure and determine whether corrective action was successful. If flare system does not ignite, this is an indication of the condensate buildup (or other blockage) in the sump and/or the landfill gas line leading to the flare system.

With the flare system shutdown, the sump pump(s) should be investigated for their operational status. Malfunctioning pumps should be replaced and the collected leachate in the sump discharged to the leachate collection system. If pumps are operating normally, the landfill gas line leading to the flare system may be blocked. The line should be cleaned to remove the obstruction and clear the line for normal landfill gas flow. The manual flare startup procedure should be initiated.

SSM EVENT 3

SSM Event Air compressor failure.

SSM Event Air compressor malfunction leading to pneumatic failure of the gas inlet valve remaining in the open position. An automatic or manual shutdown following this failure can result in an improper flare system shutdown and cause excess emissions. This condition may also result in a "Startup Flame Failure" condition preventing automatic or manual startup of the flare system.

Corrective Action

The system should be shutdown and the air compressor motor and components evaluated for the cause of failure. Malfunctioning or failed components are to be replaced with new, operating components and compressor maintenance performed to ensure proper operation of the air compressor. Once completed, the system should be manually started and the air compressor checked for proper operation.

SSM EVENT 4

SSM Event Blower failure.

SSM Event Description

Blower failure will lead to a vacuum not being pulled on the system. Unless significant positive pressure exists in the landfill gas collection system or the flare combustion is able to entrain significant flow from within the system, combustion at the flare will not be supported.

Corrective Action

The system should be shutdown and the blower motor and components evaluated for the cause of failure. Malfunctioning or failed components are to be replaced with new, operating components and blower maintenance performed to ensure proper operation of the unit. Once completed, the system should be manually started and the blower checked for proper operation.

SSM EVENT 5

SSM Event Adverse weather conditions, specifically high wind and rain.

SSM Event Description

High wind and rain may prevent re-ignition of the flare.

Corrective Action

Appropriate modifications to the flare will be made, where possible, to prevent adverse weather from affecting operation of the flare. If flare re-ignition is still not possible, the flare will enter "Start-up Flame Failure" mode. In this case, the weather should be allowed to pass and the flare be restarted manually.

SSM EVENT 6

SSM Event Automatic pneumatic valve fails to close automatically when flare goes out.

SSM Event Description

Valve failure or instrumentation failure

Corrective Action

The flare should be shutdown and the valve and components evaluated for the cause of failure. Malfunctioning or failed components are to be replaced with new, operating components and maintenance performed to ensure proper operation of the valve and control system. Once completed, the system should be manually started and the automatic valve checked for proper operation

REPORTING PROCEDURES

SSM Events

For each SSM event, a SSM event form (see Appendix) must be filled out. The event form should remain "active" until the SSM event has been concluded. At conclusion of the SSM event the event form should be fully completed and filed. The event forms should be compiled on a monthly basis into an electronic spreadsheet suitable to be presented to FDEP upon request. Actions taken that are inconsistent with the SSM Plan will trigger immediate reporting requirements (see below).

Immediate Reports

Immediate reports are required for SSM events that require actions to be taken that are inconsistent with the SSM Plan. Following the taking of action inconsistent with the SSM Plan, the Administrator must be notified within two (2) working days. A letter report to the Administrator must follow this initial notification within seven (7) working days of the end of the SSM event. The letter report must contain a description of the SSM event and the surrounding circumstances, the reasons for not following the SSM Plan, and an explanation of whether any excess emission or parameter monitoring exceedences are believed to have occurred. The letter should contain the name, title, and signature of the designated responsible official. A transmittal letter accompanying the report should include a statement that, based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

SSM PLAN REVISION PROCEDURES

The SSM Plan must be revised for malfunctions that are not adequately addressed in the SSM Plan.

You must modify your current SS&M Plan in the following situations:

- To reflect changes to your MACT operations or SS&M procedures since preparation of the last SS&M Plan (§63.6(e)(viii)); and
- If your current SS&M Plan:
 - o Does not include instructions for a SS&M that has occurred (§63.6(e) (3) (vii) (A)).

- o Does not include instructions for what you will do during a SS&M that are safe procedures and are good air pollution control practices that minimize emissions to the greatest extent (§63.6(e)(3)(vii)(B)).
- o Does not include enough instructions for correcting/repairing the malfunctioning process, air pollution control, or monitoring equipment as quickly as practical (§63.6(e) (3) (vii) (C)).
- o Includes instructions for anything that is not a SS&M, as defined above (§63.6(e) (3) (vii) (D))

Note:

If the current SS&M Plan leaves out or does not include enough instructions to correctly handle any incident that occurs that can be called a malfunction, you must revise your current SS&M Plan within 45 days after the incident. You must add to the revised SS&M Plan what you will do in case this type of incident happens again (§63.6(e) (3) (viii)) Depending on what your SS&M Plan revisions are, the permitting authority and/or EPA may ask to see a copy of your revised SS&M Plan.

APPENDIX A

SSM EVENT FORM STARTUP I SHUTDOWN I MALFUNCTION (SSM) EVENT FORM

Date:
Form Initiated:
Form Completed:

Complete this form if a startup, shutdown, or malfunction (SSM) event occurred.

Facility Information

Title V Permit No.

Name Santa Rosa County Solid Waste Management Facility
Identification No. 1130172

Address:

6337 DaLisa Rd
Milton, Florida 32583

Contact Person Mr. Ron Hixson, Environmental Supervisor

Contact Phone: 850-981-7143 (Office)
 850-232-8773 (Cell)

EVENT INFORMATION

Date Started Date Ended

Time Started Time Ended

TYPE OF EVENT Check One

- 1 STARTUP
- 2 SHUTDOWN
- 3 MALFUNCTION

Circumstances leading to the SSM event.

ACTION TAKEN Check only one

Action CONSISTENT with SSM Plan

Action INCONSISTENT with SSM Plan

Reporting Requirement Check Date

2-Day Notification

7-Day Notification

45-Day SSM Plan Modification

Description of action taken.

If SSM Plan is not followed, provide explanation here.