

Puget Sound Energy
Mint Farm Generating Station
Title V Basis Statement

Southwest Clean Air Agency
11815 NE 99 Street, Suite 1294
Vancouver, WA 98682-2322
(360) 574-3058

PERMIT #: SW08-15-R0

ISSUED: June 13, 2011

ISSUED TO: Puget Sound Energy
10885 NE Fourth Street
Bellevue, WA 98004

PLANT SITE: Mint Farm Generating Station
1200 Prudential Boulevard
Longview, WA 98632

PERMIT ENGINEER: Wess Safford, Air Quality Engineer


REVIEWED BY: Paul T. Mairose, Chief Engineer 

TABLE OF CONTENTS

I. General Information and Certification..... 1

II. Emissions Unit Identification2

III. Insignificant Emissions Unit Identification4

IV. Explanation of Selected Permit Provisions and General Terms and Conditions4

V. Explanation of Operating Terms and Conditions.....5

VI. Explanation of Obsolete and Future Requirements.....10

VII. Explanation of Monitoring Terms and Conditions13

VIII. Explanation of Recordkeeping Terms and Conditions17

IX. Explanation of Reporting Terms and Conditions.....18

X. Compliance History20

XI. Permit Actions.....20

XII. Appendices21

I. GENERAL INFORMATION AND CERTIFICATION

1. **Company Name:** Puget Sound Energy
2. **Facility Name:** Mint Farm Generating Station
3. **Parent Company:** Puget Sound Energy
4. **Responsible Official:** Wayne Gould, Director – Thermal and Wind Resources
Ron Roberts, Plant Manager
5. **Facility Contact Person:** David Hooper, Senior Environmental Scientist
6. **Unified Business Identification Number:** 602566990
7. **SIC Code / NAICS Number:** 4911 / 221112
8. **Basis for Title V Applicability:**
The facility is subject to the Title V Air Operating Permit program because it is an affected source under the Title IV Acid Rain program. The Mint Farm Generating Station is not a major source as defined in WAC 173-401-200(19).
9. **Purpose of Current Permitting Action:**
The purpose of the current permitting action is to issue an initial Title V permit for this facility. The permit will incorporate requirements from all outstanding New Source Review permits and applicable State/Federal regulations.
10. **Attainment Area:**
The Mint Farm Generating Station (Mint Farm) is located in an area which is in attainment for all criteria pollutants.
11. **Facility Description:**
Mint Farm is a primary power generation facility located in Longview, Washington. Mint Farm is owned by Puget Sound Energy who purchased the facility on December 5, 2008. Mint Farm is configured as a natural gas-fired combined-cycle turbine facility (NGCC) with a fired heat recovery steam generator (HRSG) and associated support equipment. The facility operates a single combustion turbine (General Electric - Frame 7FA). Mint Farm has a nominal generating capacity of 319 megawatts (average annual conditions). All plant equipment functions in direct support of the combustion turbine and steam generator system. First fire of the combustion turbine occurred on September 21, 2007. The facility has a total of four emission units consisting of the Combustion Turbine/HRSG, Fuel Gas Heater, Cooling Tower and Emergency Generator.

12. Facility Permitting History:

The following table lists each Air Discharge Permit (ADP) issued to the facility by SWCAA. Permits labeled as obsolete have expired or been superseded by more recent permitting actions, and are no longer in effect.

<u>Permit Number</u>	<u>ADP Application</u>	<u>Issue Date</u>	<u>Permitting Action</u>
<u>Active</u>			
10-2929	CO-888	4/29/10	Removal of fire pump emission unit. Clarification of turbine/HRSG startup and shutdown provisions. Revision of NH ₃ monitoring requirements and NO _x /NH ₃ minimization protocol.
<u>Obsolete</u>			
04-2571R2	CO-843	2/25/08	Revision of equipment specifications for previously approved emergency diesel generator. Superseded by ADP 10-2929.
04-2571R1	CO-821	11/28/06	Approval to install 8.7 MMBtu/hr fuel pre-heater. Superseded by ADP 04-2571R2.
04-2571	CO-777	9/16/04	Renewal of project approval as originally proposed in ADP Application CO-724. Superseded by ADP 04-2571R1.
01-2342R1	CO-724	5-6-02	Addition of duct firing and increase in nominal power plant rating to 319 MW. Permit voided after expiration of 18 month construction window.
01-2342	CO-689	6-4-01	Construction of a combined cycle combustion turbine power plant with nominal rating of 248 MW. Superseded by ADP 01-2342R1.

II. EMISSION UNIT IDENTIFICATION**EU1 Combustion Turbine/HRSG**

One General Electric Frame 7FA natural gas fired combustion turbine equipped with dry low-NO_x combustors and a power augmentation system. The combustion turbine has a maximum rated heat input of 1,900 MMBtu/hr and a base-load rating of 169 MW of electrical power. The combustion turbine operates in conjunction with a triple pressure heat recovery steam generator (HRSG) used to generate steam from waste heat in the turbine exhaust. The HRSG is equipped with natural gas fired duct burners rated at 458 MMBtu/hr, which are used to provide supplemental heat. Steam from the HRSG drives a steam turbine with a base-load rating of 150 MW of electrical power. Combustion gases from the combustion turbine and duct burners are discharged to the atmosphere through a common exhaust stack at 165' above ground level.

Emissions from the Combustion Turbine/HRSG consist of NO_x, CO, SO₂, PM, VOC, NH₃, HAPs, and TAPs. NO_x and CO emissions from this unit are controlled through the use of a selective catalytic reduction (SCR) system and oxidation catalyst. The SCR system uses aqueous ammonia as a reducing reagent. Both catalyst beds are located within the HRSG.

This unit is subject to applicable requirements found in 40 CFR 60 Subpart KKKK.

EU2 Fuel Gas Heater

One Gas Technology Corporation natural gas fired fuel preheater equipped with an Eclipse model WX1000 burner. The Eclipse burner has a rated heat input of 8.7 MMBtu/hr.

Emissions from the Fuel Gas Heater consist of NO_x, CO, SO₂, PM, and VOC. Emissions of NO_x and CO are minimized by the use of a low emission burner design guaranteed to limit NO_x and CO emission concentrations to a maximum of 30 ppmv and 50 ppmv, respectively (@ 3% O₂).

This emission unit is not subject to any requirements from 40 CFR Part 60 or 63.

The Fuel Gas Heater is approved, but not yet installed. Installation is dependent on the facility obtaining access to a high pressure natural gas supply, which had not occurred by the time this permit was issued.

EU3 Cooling Tower

One mechanically-induced-draft, counter-flow, multi-cell cooling tower with a design water circulation rate of 77,000 gallons per minute. This cooling tower is used to service plant cooling needs including condensation of process steam from the steam turbine. The approved operating scheme allows cooling tower water to go through a maximum of 10 cycles of concentration.

Emissions from the Cooling Tower consist of PM. PM emissions are minimized through the use of high efficiency drift eliminators guaranteed to limit drift to a maximum rate of 0.0005%.

This emission unit is not subject to any requirements from 40 CFR Part 60 or 63.

EU4 Emergency Generator

One emergency electric generator with a nominal rating of 550 kW. The electric generator is powered by a Caterpillar model 3412 diesel engine (s/n BPG00392) rated at 824 brake horsepower and manufactured in November 2002. Specific fuel consumption at full load is 43 gal/hr. This unit is used to provide electrical power to vital facility systems in the event of a complete loss of utility power.

Emissions from the Emergency Generator consist of NO_x, CO, SO₂, PM, and VOC. SO₂ emissions are minimized through the use of low sulfur diesel fuel.

This unit is subject to applicable requirements found in 40 CFR 63 Subpart ZZZZ. The applicable requirements became effective May 3, 2010 (Federal Register notice dated March 3, 2010) with a compliance date of May 3, 2013.

III. INSIGNIFICANT EMISSION UNIT IDENTIFICATION

Each emission unit listed as insignificant in the permit application has been reviewed by SWCAA to confirm its status. The emission units were determined to be insignificant as follows:

There are no specifically identified insignificant emission units at this facility.

IV. EXPLANATION OF SELECTED PERMIT PROVISIONS AND GENERAL TERMS AND CONDITIONS

P12. Excess Emissions

SWCAA 400-107

SWCAA 400-107 establishes criteria and procedures for determining when excess emissions are considered unavoidable. Emissions that meet the requirements to be classified as unavoidable are still considered excess emissions and are reportable but are excused and not subject to penalty. Notification of excess emissions is required as soon as possible and shall occur by the next business day following the excess emissions event. Excess emissions due to startup or shutdown conditions are considered unavoidable if the permittee adequately demonstrates the excess emissions could not have been prevented through careful planning and design. Upset excess emissions are considered unavoidable if the permittee adequately demonstrates the upset event was not caused by poor or inadequate design, operation, maintenance, or other reasonably preventable condition, and the permittee takes appropriate corrective action that minimizes emissions during the event, taking into account the total emissions impact of that corrective action.

G5. Permit Renewal

WAC 173-401-710(1)

An Air Operating Permit has an effective term of 5 years from the date of final issuance. Pursuant to WAC 173-401-710(1), the permit specifies a date by which a renewal application is required to be submitted to SWCAA.

A preliminary renewal application for this facility must be submitted no later than 12 months prior to permit expiration. A complete renewal application must be received no later than 6 months prior to permit expiration. Early submittal of a preliminary application is intended to provide SWCAA with the opportunity to review the application for completeness and allow the permittee sufficient time to amend the application, if necessary, prior to the final submission date.

WAC 173-400-117, WAC 173-400-700

WAC 173-460 (effective 8/21/98)

SWCAA 400-109, SWCAA 400-110

G8. New Source Review

SWCAA 400-141

Construction or modification of an air pollution source is subject to review to ensure that applicable emission standards are met and appropriate control technology is employed. The program under which a new source or modification is reviewed depends on the type and quantity of potential air emissions associated with the project. New sources or modifications that meet the definition of a 'major stationary source' are subject to review under the Prevention of Significant Deterioration (PSD) program, which is administered by the Department of Ecology. Sources that are too small to be a major source (minor sources) are subject to review under SWCAA's new source review program. New sources or modification of existing sources that increase the emission of toxic air pollutants are subject to review under SWCAA's toxic air pollutant program, which implements the 8/21/98 version of WAC 173-460.

G9. Portable Sources SWCAA 400-110(5)

SWCAA 400-110(6) (*400-110(5) in SIP version of rule*) establishes procedures for approving the operation of portable sources of air emissions that locate temporarily at project sites. These requirements are general standards, and apply to all portable sources of air contaminants. Equipment commonly subject to these conditions include emergency generators, engine-powered pumps, rock crushers, concrete batch plants, and hot mix asphalt plants that operate for a short time period at a site to fulfill the needs of a specific contract. Portable sources exempt from registration under SWCAA 400-101 are also exempt from SWCAA 400-110 and not subject to the portable sources requirements. Operations with potential to emit less than 1 tpy combined of all criteria pollutants plus volatile organic compounds are among those categories listed in SWCAA 400-101 as exempt.

G14. Chemical Accident Prevention Provisions 40 CFR 68

Currently, none of the facility operations store or handle affected substances in quantities large enough to trigger applicability of the provisions in 40 CFR 68. The primary material of concern at this facility is bulk aqueous ammonia, which is stored onsite for use in the turbine's SCR system. The existing storage tank has a physical capacity less than the applicable threshold for <20% aqueous ammonia so the regulation does not apply. However, the regulation has been included in the general terms of the permit in order to address future operations that may store or handle substances that are subject to the regulation.

G15. Reporting of Emission of Greenhouse Gases WAC 173-441

WAC 173-441 requires owners and operators to quantify and report emissions of greenhouse gases from applicable source categories if actual emissions from their facility are ten thousand metric tons CO₂e or more per year. Annual greenhouse gas emissions from this facility are much greater than ten thousand tons so the facility is subject to the reporting program. All required reports are to be submitted directly to Ecology. Likewise, report review and approval of calculation methodology is performed by Ecology with little or no involvement by SWCAA.

V. EXPLANATION OF OPERATING TERMS AND CONDITIONS**Reqs 1-8****General Standards for Maximum Emissions SWCAA 400-040**

SWCAA 400-040 establishes maximum emission standards for various air contaminants. These standards apply to all emission units at the source, both EU and IEU. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for affected IEUs except those specifically identified by the underlying requirements. General monitoring provisions have been created under 'gap-filling' to provide reasonable compliance assurance for general standards that do not specify a monitoring regime.

Req 9**Emission Standards for Combustion and Incineration Units SWCAA 400-050**

SWCAA 400-050 establishes maximum emission standards for selected emissions from combustion and incineration units. These requirements apply to all combustion and incineration units at the source, both EUs and IEUs. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for affected IEUs except those specifically identified by the underlying requirements.

Req 10**Emission Standards for General Process Units SWCAA 400-060**

SWCAA 400-060 establishes maximum particulate matter emission standards for general process units. These requirements apply to all general process units at the source, both EUs and IEUs. For this facility in particular, the standards only apply to IEUs because all of the EUs are combustion units not subject to the rule. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for affected IEUs except those specifically identified by the underlying requirements.

Req 11**Emission Standards for Certain Source Categories Abrasive Blasting SWCAA 400-070(8)**

SWCAA 400-070 establishes emission standards for specific source categories. SWCAA 400-070(8) establishes general limitations and work practice requirements for abrasive blasting operations. These limitations and requirements are applicable to any construction and/or maintenance activities at the facility that involve abrasive blasting.

Reqs 12-14, 17-23, 25-28, 32-41**SWCAA Air Discharge Permit ADP 10-2929**

ADP 10-2929 is the active air discharge permit for Mint Farm. It establishes emission limits and operational requirements for all of the emission units at the facility. ADP 10-2929 was issued on April 29, 2010 in response to air discharge permit application CO-888. ADP 10-2929 supersedes all previously issued air discharge permits as described in the obsolete regulation section of this document. At the time of approval, emission limits, operational limits, and fuel restrictions imposed by the permit were representative of BACT.

ADP 10-2929 contains monitoring requirements for most of the applicable requirements cited in this section. Those monitoring requirements are generally sufficient to assure compliance and have been carried forward in the air operating permit. In cases where ADP 10-2929 does not specify monitoring, monitoring provisions have been developed under 'gap-filling' to provide reasonable compliance assurance. For applicable requirements that apply to fundamental equipment design or installation, SWCAA has relied upon compliance certification by the responsible official to provide compliance assurance.

Requirement 12 contains visible emissions limitations for all of the facility's emission units. The opacity limits reflect the operating scheme proposed by the permittee at the time of equipment installation and vary depending upon the affected emission unit. The visible emissions limit for the emergency generator allows an exception during startup periods due to the operating limitations of the generator's diesel engine.

Requirement 13 is a general permit term requiring pollution control equipment to be operated at all times during which the associated process equipment is in operation. Approval conditions for emission units equipped with dedicated control equipment generally assume that the control equipment is employed at all times to minimize air pollutant emissions. Bypassing or turning off control equipment circumvents the approved operating scheme. This requirement prohibits such action by the permittee.

Requirement 14 contains plantwide emission limits for criteria pollutants and ammonia. These limits reflect the operating scheme proposed by the permittee at the time of facility permitting, and apply to combined air pollutant emissions from all identified emission units at the facility. The emission limits constitute enforceable limits on potential to emit and were intended to keep the facility from being subject to major source permitting.

Requirements 17 through 22 contain BACT emission limits specific to the Combustion Turbine. The emission limits apply to emissions of criteria pollutants, VOC and NH₃. For all affected pollutants, the requirements establish maximum mass emission rates for all pollutants and maximum average emission concentrations for NO_x, CO and NH₃.

Requirement 23 is an exemption clause that applies to the short term emission limits established in Requirements 17 through 22. Any emission limit with an averaging time of 24-hr or less is suspended during periods of combustion turbine startup or shutdown. There are significant physical limitations on the ability of the combustion turbine and associated control equipment to meet specified performance levels during these transitory operational periods. Suspension of short term emission limits is intended to reasonably accommodate the physical limitations of the equipment. Suspension is only allowed for limited periods of time, which vary depending on the operating condition of the steam turbine. (The steam turbine has more significant physical limitations during startup and shutdown than the combustion turbine.) In no case, are emission limits suspended for greater than 6 hours during startup or 30 minutes during shutdown.

Requirement 25 establishes design limitations for the NO_x emission control system in use with the combustion turbine. The control system must be capable of maintaining NO_x emission concentrations at 2.5 ppmv or less while also limiting NH₃ emission concentrations to 10 ppmv or less while firing on natural gas. The design limitations are taken from the facility's original design proposal.

Requirements 26 and 27 contain NO_x control system operating restrictions established by SWCAA in the facility's original construction permit. The restrictions are intended to maintain ongoing NO_x emission concentrations at the lowest level practical. For facilities with configurations similar to Mint Farm, available emission data at the time of permitting indicated a noticeable difference between prevailing BACT limits for NO_x from the Combustion Turbine and the physical ability of the associated NO_x control system. Observed NO_x control systems were generally operated at, or near, the NO_x emission limit of the associated turbine even though the same systems were physically capable of reliably achieving higher levels of control.

In the interest of minimizing emissions on an ongoing basis, SWCAA required the facility to operate the NO_x control system at the highest practical level of control rather than simply focusing on compliance with the BACT limit. Mint Farm is required to conduct annual emission trials to determine the contemporaneous capabilities of the NO_x control system. Based on information from

the trials, Mint Farm selects operating parameters that minimize the arithmetic sum of NO_x and NH₃ emissions concentrations.

Control system efficiency will degrade as the catalyst ages so SWCAA expects actual emission concentrations (NO_x/NH₃) to slowly rise over time until the point where the catalyst bed requires replacement. To ensure that catalyst replacement is performed in a timely fashion, the permittee is required to take affirmative action to address performance degradation whenever the control system can no longer maintain NH₃ emission concentrations below 5.0 ppmv. The action taken is left to the permittee's discretion, and will vary depending upon the specific situation.

Requirement 28 limits the ammonia content of aqueous ammonia used in the Combustion Turbine's ammonia injection system to less than 20%. The primary purpose of this requirement is to keep the facility from becoming subject to the provisions of the Chemical Accident Prevention program (40 CFR 68). Aqueous ammonia with a concentration of less than 20% ammonia is not regulated under that program.

Requirement 32 specifies natural gas as the only allowable fuel for the Combustion Turbine/HRSG and Fuel Gas Heater. This restriction is taken from the original permit application for the affected equipment and forms the basis for associated BACT determinations at the time of original approval.

Requirements 33 through 35 are BACT emission limits specific to the Fuel Gas Heater. The emission limits apply to emissions of selected air pollutants (NO_x, CO, PM). The requirements establish a maximum annual mass emission rate for each affected pollutant and maximum emission concentrations for NO_x and CO. Compliance with the limits is determined based on recorded fuel consumption and presumptive emission factors.

Requirement 36 requires that the Fuel Gas Heater be equipped with a dedicated fuelmeter. SWCAA required a fuelmeter because fuel consumption is used to calculate annual emissions from this unit in support of the facility's emission inventory. A fuelmeter is a common piece of equipment for process heaters, and was considered to be a practical way to monitor unit operation.

Requirement 37 is a BACT emission limit specific to the Cooling Tower. The emission limits apply to emissions of PM due to tower drift. The requirement establishes a maximum annual mass emission rate. The limits are based on information submitted in the original permit application for the unit. Compliance with the limits is determined based on recorded operation and technical information for the Cooling Tower drift eliminators.

Requirement 38 contains BACT emission limits specific to the Emergency Generator. The emission limits apply to emissions of selected air pollutants (NO_x, CO, PM). The requirements establish a maximum annual mass emission rate for each affected pollutant. The limits reflect limited operation for the purposes of testing and emergency use only, consistent with the operating scheme proposed in the original permit application. Compliance with the limits is determined based on recorded operation and emission factors from the manufacturer.

Requirement 39 specifies a maximum fuel sulfur content for fuel oil fired in the Emergency Generator. This restriction is consistent with the original permit application for the affected equipment and forms part of the basis for the associated BACT determination at the time of original approval.

Requirement 40 requires that the Emergency Generator be equipped with a non-resettable hour meter. SWCAA required an hourmeter because recorded operation is used to calculate annual emissions from this unit in support of the facility's emission inventory. An hourmeter is a common piece of equipment for diesel engines, and was considered to be a practical way to monitor unit operation.

Requirement 41 limits annual operation of the Emergency Generator. A maximum of 170 hr/yr of operation is allowed for the purposes of readiness checks and routine maintenance. Emergency service is not counted toward the allowed operating hours. This restriction of operation was established as part of the original approval action for the unit. This limit is less stringent than the 100 hr/yr maintenance and testing allowance found in MACT Subpart ZZZZ (40 CFR 63.6640(f)), and will become obsolete when the MACT becomes effective in 2013.

Req 24

Greenhouse Gas Emissions Performance Standard and Sequestration

Plans and Programs for Baseload Electric Generation Facilities WAC 173-407, Part II

WAC 173-407 sections 100 through 240 establish a greenhouse gas emissions performance standard for baseload electric generation facilities, and is intended to implement the provisions of Chapter 80.80 RCW. Pursuant to WAC 173-407-120, the regulation applies to base-load fossil fuel-fired electric generation units that receive approval after June 30, 2008 or existing facilities that undergo any of the actions listed in WAC 173-407-120(3). This regulation did not apply to Mint Farm when the facility first went into operation. It became applicable upon purchase of the facility by Puget Sound Energy effective December 5, 2008. Mint Farm does not have sequestration requirements, but is required to limit greenhouse gas emissions from the combustion turbine to no more than 1,100 lb/MW-hr (annual average). The performance limit is taken directly from WAC 173-407-130.

Req 15

40 CFR 60.11(d)

Compliance with Standards and Maintenance Requirements

SWCAA 400-115

Requirement 15 is taken from 40 CFR 60.11(d), which requires the permittee to maintain and operate affected equipment in a manner that is consistent with good air pollution control practices to minimize emissions. 40 CFR 60.11(d) is a general requirement that applies specifically to the Combustion Turbine, which is the only unit at the facility subject to a 40 CFR Part 60 performance standard. SWCAA has relied upon compliance certification by the responsible official to provide compliance assurance with this requirement.

Reqs 16, 31

40 CFR 60, Subpart KKKK

Standards of Performance for Stationary Combustion Turbines

40 CFR 60, Subpart KKKK establishes NO_x and SO₂ emission standards for stationary gas turbines that have a heat input at peak load greater than 10.7 gigajoules per hour, and are constructed, modified or reconstructed after February 18, 2005. The Combustion Turbine is subject to this regulation.

Compliance with a NO_x emission limit is required by 40 CFR 60.4320, and the applicable emission limit is quantified in Table 1 of Subpart KKKK. The NO_x emission limit is dependent on turbine size, function, fuel type, and geographic location. The Combustion Turbine is classified as a new,

natural gas fired, electricity generating turbine with a peak load heat input of > 850 MMBtu/hr. The NO_x emission limit specified in Table 1 is 15 ppm @ 15% O₂.

Compliance with an SO₂ emission limit is required by 40 CFR 60.4330, which establishes an emission limit of either 0.90 lb SO₂/MWh gross output or 0.060 lb SO₂/MMBtu heat input. Compliance for Mint Farm's turbine is generally demonstrated using the 0.060 lb SO₂/MMBtu heat input standard.

Req 29**40 CFR 72.40(a)(1)****Acid Rain Compliance Plan****WAC 173-406-400**

Mint Farm is an "affected source" under the Acid Rain Program. 40 CFR 72.40 and WAC 173-406-400 require that the facility hold SO₂ allowances not less than the total annual emissions in tons of SO₂ from the Combustion Turbine beginning with calendar year 2000. Mint Farm does not receive an allocation of allowances. All SO₂ allowances used to meet its program obligations are obtained through open market allowance trading.

Req 30**Acid Rain Primary Monitoring Provisions****40 CFR 75.10(a)**

40 CFR 75.10(a)(1) through (3) requires that an Acid Rain affected unit be equipped with continuous emissions monitoring systems and an automated data acquisition and handling system for measuring and recording SO₂, NO_x, and CO₂ emissions discharged to the atmosphere. 40 CFR 75.10(a)(4) requires Acid Rain affected units to be equipped with a continuous opacity monitoring system with an automated data acquisition and handling system for measuring and recording the opacity of discharged emissions. The Combustion Turbine/HRSG is an affected unit so Mint Farm is required to install and maintain all of the cited systems.

Reqs 40, 42-44**National Emissions Standards for Hazardous Air Pollutants for****Stationary Reciprocating Internal Combustion Engines****40 CFR 63, Subpart ZZZZ**

40 CFR 63, Subpart ZZZZ establishes standards for stationary reciprocating internal combustion engines (RICE). Under the provisions of Subpart ZZZZ, the Emergency Generator is classified as existing stationary RICE, and is subject to the regulation effective May 3, 2013. Requirement 44 implements Subpart ZZZZ operational standards applicable to the diesel engine. As provided for in 40 CFR 63.6625(e), the permittee has opted to implement a facility specific maintenance plan that provides for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The maintenance plan requires annual inspection and/or replacement of critical engine components. Requirement 42 limits the annual operation of the Emergency Generator consistent with the provisions of 40 CFR 63.6640(f)(1). Requirements 40 and 43 implement operational requirements taken from 40 CFR 63.6625.

VI. EXPLANATION OF OBSOLETE AND FUTURE REQUIREMENTS

OBSOLETE REQUIREMENTS

1. NSPS Notification and Record Keeping 40 CFR 60.7

The Combustion Turbine/HRSG is subject to an NSPS regulation (40 CFR 60, Subpart KKKK), and must provide notification as provided in 40 CFR, Section 60.7. These requirements have been met as described below.

Combustion Turbine

Notification of construction:	Submitted via letter dated April 26, 2006
Notification of anticipated startup:	Submitted via letter dated August 28, 2007
Notification of actual startup:	Submitted via letter dated September 16, 2007

2. NSPS Initial Performance Test – Subpart KKKK 40 CFR 60.8

The Combustion Turbine at this facility is subject to the NO_x standard described in 40 CFR 60.332. Therefore, the unit is also subject to the performance testing requirements of 40 CFR, Section 60.8. These requirements have been met as described below.

Initial source test:	Performed February 19-20, 2008
Source test report:	Received by SWCAA on April 4, 2008

3. General Acid Rain Recordkeeping Provisions 40 CFR 75.50

The general Acid Rain recordkeeping provisions of 40 CFR 75.50 are no longer valid as of January 1, 1996, and are replaced by the general recordkeeping provisions of 40 CFR 75.54. The Acid Rain Program provided an optional set of recordkeeping requirements with only slightly different provisions prior to January 1, 1996, but disallows their use from January 1996 onward.

4. Acid Rain Notifications 40 CFR 75.61

The Combustion Turbine is subject to the requirements of 40 CFR Part 75.61 "Notifications". These requirements have been met as described below.

Actual startup date:	SWCAA notified August 28, 2007 (startup - 9/16/07)
Initial CEMS certification:	SWCAA notified January 16, 2008 (test plan submittal)
Initial CEMS certification test:	Completed – March 5, 2008

5. Acid Rain Monitoring Plan 40 CFR 75.62

The Combustion Turbine is subject to the requirements of 40 CFR, Section 75.62 "Monitoring Plan". The initial monitoring plan was submitted to SWCAA and EPA on November 20, 2007.

6. SWCAA Regulatory Orders/Air Discharge Permits

SWCAA has issued a total of six air discharge permits for the Mint Farm facility since it was initially proposed. As identified in Section V, only the newest permit is still active (ADP 10-2929). Approval conditions in the previous five permits have been superseded or have become obsolete as described below.

ADP 04-2571R2 (issued February 25, 2008) modified the permitted equipment specifications for the Emergency Generator. The permitting action was necessary to correct discrepancies between the original equipment approval and the equipment actually installed at the facility. Existing emission limits and operational conditions were carried forward unchanged from ADP 04-2571R1. This permit was superseded in its entirety by ADP 10-2929.

ADP 04-2571R1 (issued November 28, 2006) approved installation of the Fuel Gas Heater. The unit was identified as a natural gas fired fuel heater with a maximum rated heat input of 8.7 MMBtu/hr. The identified purpose of the Fuel Gas Heater was to temper incoming natural gas received from a high pressure supply point. All other emission limits and operational conditions were carried forward from ADP 04-2571. This permit was superseded in its entirety by ADP 04-2571R2.

ADP 04-2571 (issued September 16, 2004) approved construction of a combustion turbine powered electrical generating station. This permitting action was a simple renewal of the project proposal originally approved in ADP 01-2342R1. There were no substantive technical differences between ADP Application CO-777 and ADP Application CO-724. This permit was superseded in its entirety by ADP 04-2571R1.

ADP 01-2342R1 (issued May 6, 2002) modified the project proposal approved in ADP 01-2342 to include duct firing. Nominal rated output of the generating plant increased from 248 MW to 319 MW. All other emission limits and operational conditions were carried forward from ADP 01-2342. This permit expired upon expiration of an 18 month construction window.

ADP 01-2342 (issued June 4, 2001) approved construction of a combustion turbine powered electrical generating plant. The approved facility was configured with a single natural gas fired combustion turbine and unfired HRSG. Nominal rated output of the generating plant was 248 MW. This permit was superseded in its entirety by ADP 01-2342R1.

FUTURE REQUIREMENTS

None identified.

VII. EXPLANATION OF MONITORING TERMS AND CONDITIONS

The monitoring terms listed below incorporate formal monitoring taken from applicable regulations as well as 'gap-fill' monitoring designed to assure compliance for requirements that do not contain formal monitoring. For applicable requirements that have one-time applicability or apply primarily to equipment design or installation, SWCAA relies upon compliance certification by the responsible official to provide compliance assurance.

M1. Visible Emissions Monitoring Reqs 1, 12, 15

The applicable requirements cited in this monitoring section are requirements drawn from SWCAA 400-040 and ADP 10-2929. These requirements limit visible emissions, but do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring requirements under the "gap filling" provisions of WAC 173-401-615.

The inspection scheme specified by this requirement is designed to provide periodic assurance of compliance, and identify potential visible emission violations in a timely fashion, prompting corrective action when necessary. A monthly inspection frequency is considered adequate to assure compliance with applicable opacity requirements based on this source's history of continued compliance and the fact that operation of the primary emission units at this facility (Combustion Turbine/HRSG, Fuel Gas Heater, Cooling Tower, Emergency Generator) is not likely to cause visible emissions.

M2. Fugitive Emissions/Fallout Monitoring Reqs 2-3, 8, 11, 15

The applicable requirements cited in this monitoring section are general requirements drawn from SWCAA 400-040 and 400-070. These requirements do not establish a specific regime of monitoring or recordkeeping so SWCAA has implemented monitoring requirements under the "gap filling" provisions of WAC 173-401-615.

Generally, a lack of visual emissions or material accumulation is indicative of compliance with the applicable particulate matter emission limits and work practices. This monitoring requirement is designed to assure compliance through periodic visual inspections of the facility and prompt corrective action.

M3. Particulate Matter Monitoring Reqs 9, 10

The applicable requirements cited in this monitoring section are maximum particulate matter emission limits taken from SWCAA 400-050 and 400-060. These requirements do not establish a specific regime of monitoring or recordkeeping so SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

This monitoring requirement is designed to assure compliance through periodic facility inspections and prompt corrective action. Affected equipment is generally in compliance with the applicable emission limits unless the units are experiencing an upset of some type. A visual inspection of each unit while operating provides a reasonable assurance that the equipment is not experiencing an upset. If evidence of an upset is observed, corrective action requirements result in the affected unit being repaired or taken out of operation.

M4. Complaint Monitoring**Reqs 2-5, 8**

The applicable requirements cited in this monitoring section are general requirements drawn from SWCAA 400-040 and 400-070. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring requirements under the "gap filling" provisions of WAC 173-401-615.

Most of the affected applicable requirements prohibit unacceptable impacts on neighboring properties and/or surrounding populations. While many of the prohibited impacts might be observed from the facility itself, compliance with all provisions can not be assured by onsite observations alone (e.g., offsite odor impact). Therefore, this monitoring scheme relies on input from affected parties. The monitoring is designed to assure compliance through prompt complaint response and corrective action.

Combustion Turbine/HRSG**M5. Operations Monitoring****Reqs 16-22**

The applicable requirements cited in this monitoring section are requirements drawn from 40 CFR 75 and ADP 10-2929. The affected requirements primarily involve the monitoring and recording of operational parameters and CEMS data for the Combustion Turbine/HRSG. Calibration, audit, and maintenance activities related to the CEMS are also recorded under this monitoring provision. The information collected by this monitoring provision is used directly in calculating hourly emissions from the Combustion Turbine/HRSG and is an important part of assuring compliance with applicable emission limits.

Combustion Turbine/HRSG**M6. General Emission Monitoring****Reqs 6, 19-21, 30, 31**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 60.4365, 40 CFR 75.11, WAC 173-406-106, and ADP 10-2929. The section is intended to assure compliance with SO₂, PM, and VOC emission limits applicable to the Combustion Turbine/HRSG.

SO₂ emissions are quantified by calculating hourly emissions based on recorded heat input and emission factors derived from the results of periodic fuel sulfur monitoring. The permittee has also opted to comply with the provisions of 40 CFR 75.11(d) by using the procedures in 40 CFR 75, Appendix D.

PM, and VOC emissions are quantified by calculating hourly emissions based on recorded heat input and the most recent emission test data available expressed in units of lb/MMBtu.

Combustion Turbine/HRSG**M7. NO_x, CO, and NH₃ Continuous Emissions Monitoring****Reqs 16-18, 22, 27, 30**

This monitoring section is drawn from ADP 10-2929, Condition 32 and Appendix B. The primary intent of the monitoring is to assure compliance with applicable emission limits from ADP 10-2929, Conditions 1 and 2. In addition, the specified monitoring fulfills applicable monitoring requirements from 40 CFR 75 and 40 CFR 60.334(b)(2) through the installation and maintenance of a CEMS for NO_x/CO and a PEMS for NH₃.

NO_x emissions are quantified by calculating hourly emissions based on recorded heat input and CEMS data expressed in units of lb/MMBtu. The emission calculations are consistent with the methodology required for NO_x calculations by 40 CFR 75.12 (40 CFR 75, Appendix F). ADP 10-2929, Appendix B requires the NO_x CEMS to be maintained in accordance with the specifications of 40 CFR 75 and 40 CFR 60, Appendices B (Performance Specification 2) and F.

CO emissions are quantified by calculating hourly emissions based on recorded heat input and CEMS data expressed in units of lb/MMBtu. The emission calculations are consistent with the methodology in Equation 19-1 of 40 CFR 60, Appendix A. ADP 10-2929, Appendix B requires the CO CEMS to be maintained in accordance with the specifications of 40 CFR 60, Appendices B (modified Performance Specification 4A) and F.

NH₃ emissions are quantified by calculating hourly emissions based on recorded emission concentration (ppmv) and calculated stack Flowrate. Stack Flowrate is calculated using EPA Method 19 fuel factors and recorded fuel consumption by the duct burners and combustion turbine.

Combustion Turbine/HRSG

M8. Startup and Shutdown Emissions

Req 23

Due to the physical limitations inherent in the operation of the combustion turbine and emission control equipment, short term emission limits established in ADP 10-2929 for the Combustion Turbine/HRSG do not apply during periods of startup and shutdown. Consequently, Mint Farm is required to clearly identify all periods of startup and shutdown. Pollutant emissions during these events are still counted when determining compliance with long term (annual) emission limits for the Combustion Turbine/HRSG so corresponding emissions are also to be recorded consistent with ADP 10-2929, Conditions 26 and 27.

Combustion Turbine/HRSG

M9. Greenhouse Gas Emission Monitoring

Req 24

This monitoring section is drawn from WAC 173-407-140. The owner or operator of a facility subject to WAC 173-407 Part II, is prohibited from emitting regulated greenhouse gases at a rate greater than 1,100 lb/MW-hr (annual avg). Affected facilities are required to collect operational data regarding fuel consumption, electrical production, and greenhouse gas emissions as specified in WAC 173-407-140. Data collection and calculations must be performed in accordance with the methodology found in WAC 173-407-230.

M10. Combustion Turbine/HRSG Emission Testing

Reqs 16-18, 20-22

This monitoring section is drawn from ADP 10-2929, Condition 31 and Appendix A. The purpose of this testing is to periodically quantify emissions of NO_x, CO, NH₃, PM, and VOCs from the combustion turbine exhaust stack and to demonstrate compliance with the requirements of this permit and 40 CFR 60, Subpart KKKK "Standards of Performance for Stationary Combustion Turbines".

The testing protocol requires Mint Farm to operate at base load with duct burners firing during the required testing. Mint Farm must emission test for NO_x, CO, and NH₃ on an annual basis. Emission testing for VOC and PM is to be performed every 5 years. Initial emission testing for all affected pollutants was conducted on February 19-20, 2008.

Combustion Turbine/HRSG**M11. NO_x Emission Control System Trials****Req 26**

This monitoring section is drawn from ADP 10-2929, Condition 33 and Appendix C. Mint Farm is required to conduct emission trials for the Combustion Turbine/HRSG that establish the contemporary relationship between NO_x and NH₃ emission concentrations over a range of operational conditions. Emission trials are to be conducted annually, no later than the end of the first calendar quarter.

The emission trials are intended to support compliance with ADP 10-2929, Condition 14, which requires Mint Farm to operate the NO_x control system for the combustion/HRSG in such a manner as to minimize the arithmetic sum of NO_x and NH₃ emission concentrations. Monitoring the performance of the NO_x control system over a range of targeted NO_x emission levels allows the facility to quantify corresponding NH₃ slip as well as identify age/use related degradation of the system capabilities.

M12. Fuel Gas Heater General Emission Monitoring**Reqs 33-35**

This monitoring section is drawn from ADP 10-2929, Condition 30. The section is intended to assure compliance with SO₂, PM, and VOC emission limits applicable to the Fuel Gas Heater. Mint Farm is required to record monthly fuel consumption and significant maintenance/repair activities.

SO₂, PM and VOC emissions are quantified by calculating monthly emissions based on recorded fuel consumption and prescribed emission factors expressed in units of lb/MMBtu.

M13. Fuel Gas Heater NO_x and CO Emission Monitoring**Reqs 33-34**

This monitoring section establishes periodic emission monitoring requirements for the Fuel Gas Heater. The intent of the section is to assure compliance with NO_x and CO emission limits applicable to the Fuel Gas Heater. The section incorporates both reference method and non-reference method emission monitoring.

Mint Farm is required to annually monitor NO_x and CO emission concentrations from the Fuel Gas Heater pursuant to ADP 10-2929, Condition 37. The stipulated monitoring protocol is taken directly from ADP 10-2929, Appendix F. Corrective action is required if monitoring results indicate excess emissions. The intent of the annual monitoring is to provide credible evidence of ongoing compliance with applicable emission limits.

Mint Farm is required to conduct periodic reference method testing for NO_x and CO emission concentrations on a continuing 10 year cycle pursuant to ADP 10-2929, Condition 36. The stipulated testing protocol is taken directly from ADP 10-2929, Appendix E. The intent of the periodic testing is to formally demonstrate compliance with applicable emission limits.

M14. Cooling Tower Emission Monitoring**Req 37**

This monitoring section is drawn from ADP 10-2929, Condition 35. The section is intended to assure compliance with PM emission limits applicable to the Cooling Tower. Mint Farm is required to record water circulation rate and hours of operation as well as periodically determine the Total Dissolved Solids (TDS) level of the cooling tower water. PM emissions are quantified by

calculating monthly emissions based on recorded operation, circulation rate and tested solids content.

M15. Emergency Generator Monitoring

Reqs 38-39, 41-44

This monitoring section is drawn from 40 CFR 63.6655 and ADP 10-2929, Condition 29. Periodic testing is not required for these units due to their status as emergency use only. Operation and maintenance requirements from 40 CFR 63, Subpart ZZZZ have been incorporated into the monitoring as appropriate. Compliance with emission limits from ADP 10-2929 is demonstrated based on recorded hours of operation and emission factors taken from the Technical Support Document for ADP 10-2929.

M16. Ammonia Concentration Monitoring

Req 28

This monitoring section is drawn from ADP 10-2929, Condition 28. The permittee has opted to avoid the Risk Management Plan requirements of 40 CFR 68 by not using anhydrous ammonia and limiting the concentration of aqueous ammonia stored and used onsite to less than the exemption threshold of 20% by weight (40 CFR 68.130). 40 CFR Part 68 does not require any specific monitoring to substantiate compliance with the exemption threshold so SWCAA has implemented monitoring requirements under the "gap filling" provisions of WAC 173-401-615 to assure compliance. This monitoring section records the ammonia concentration of each material shipment received by the facility, and documents that only aqueous ammonia with a concentration of less than 20% is in use.

M17. Plantwide Emission Monitoring

Req 14

This monitoring section is drawn from ADP 10-2929, Condition 42(i). The permittee is required to determine the sum of emissions from all emission units at the facility on a monthly basis. Emission calculations are based on data gathered under monitoring requirements M6-M9 and, M12-15. The monthly emission summary is used to demonstrate compliance with applicable plantwide emission limits from ADP 10-2929.

VIII. EXPLANATION OF RECORDKEEPING TERMS AND CONDITIONS

K1. General Recordkeeping

The requirements cited in this recordkeeping section are drawn from provisions in WAC 173-401-615(2) and ADP 10-2929. Recordkeeping requirements have been separated into sub-categories for easier reference.

K2. Continuous Emission Data Recordkeeping

The requirements cited in this recordkeeping section are taken from applicable sections of 40 CFR 75 and ADP 10-2929, Condition 27. The Acid Rain Program requires that pertinent records be maintained for at least three years from the date of the record. This period has been extended to five years as required by the general recordkeeping provisions of WAC 173-401-615(2)(c). The

type and format of data to be recorded is specified for operating conditions and emissions of Acid Rain affected units.

IX. EXPLANATION OF REPORTING TERMS AND CONDITIONS

R1. Deviations from Permit Conditions

The permittee is required to promptly report all permit deviations pursuant to WAC 173-401-615(3), SWCAA 400-107, and ADP 10-2929. Reporting timelines vary depending on the type of deviation involved.

The general timeline for deviation reporting (within 30 days following the end of the month of discovery) is cited in WAC 173-401-615(3) and ADP 10-2929, Condition 39. The timeline for reporting if the permittee wishes to claim excess emissions as unavoidable (within 48 hours of discovery) is defined in SWCAA 400-107 and ADP 10-2929, Condition 40. The timeline for deviations that pose a potential threat to human health and safety (within 12 hours of discovery) is taken directly from WAC 173-401-615(3). This reporting requirement is intended to include the reporting of noncompliant Combustion Turbine/HRSG startup and shutdown events as cited in ADP 10-2929 Condition 43.

In all cases, SWCAA may request a full written report of any deviation if determined to be necessary. Permit deviations are also to be identified in the subsequent quarterly report.

R2. Complaint Reports

The permittee is required to report all complaints to SWCAA within three business days of receipt. This reporting section is based on WAC 173-401-615(3), and SWCAA's definition of "prompt" for reporting of complaints. The intent is to ensure a timely and effective response to complaints by either the facility or SWCAA.

R3. Quarterly Reports

Although semi-annual reporting of monitoring records and certification of monitoring records is required by WAC 173-401-615(3), quarterly reporting of specified monitoring records is required by the Acid Rain Program and ADP 10-2929. The type of data to be reported, and the format by which it is to be reported, is specified as "General Information" and "Acid Rain Data". The "General Information" elements are taken from WAC 173-401-615(3) and ADP 10-2929, Requirement 42. The "Acid Rain" elements are derived from requirements found in 40 CFR 75.64.

R4. Semi-Annual Reports

The permittee is required to provide a report on the status of all monitoring records and provide certification of all submitted reports on a semi-annual basis. Semi-annual reporting and certification of monitoring records is required by WAC 173-401-615(3). A Responsible Official must certify all reports required by the Title V permit. The purpose of this report is primarily to identify the status of required monitoring, rather than submittal of actual monitoring data (e.g. measured pressure drops, opacity readings, etc.).

R5. Emission Inventory Reports

This reporting requirement is drawn from SWCAA 400-105 and ADP 10-2929, Condition 38. The permittee is required to submit an emissions inventory report to SWCAA by March 15th for the previous calendar year. A complete emissions inventory includes quantification of emissions from all emission units at the facility. SWCAA's Executive Director may extend the submittal date by up to 60 days, pursuant to SWCAA 400-105(1)(a).

R6. Annual Compliance Certification

The permittee is required to report and certify compliance with all permit terms and conditions on an annual basis pursuant to SWCAA 401-630(5) and 40 CFR 72.90 (for the Combustion Turbine). The permittee is required by 40 CFR 60.11(g) to consider credible evidence when submitting compliance certifications to NSPS affected units (Combustion Turbine/HRSG).

In the annual compliance certification for each Acid Rain affected unit, the permittee or designated representative must indicate whether the unit held allowances in its compliance subaccount not less than the unit's total SO₂ emissions during the calendar year covered by the annual report. The permittee is required to indicate in the certification whether the monitoring plan is current, the monitors are properly certified, and all emissions were accounted for by either direct monitoring or missing data procedures.

R7. Fuel Sulfur Content Reports

This reporting requirement is taken directly from ADP 10-2929, Condition 44. The permittee is required to submit the results of periodic fuel sulfur sampling (ADP 10-2929, Condition 34) to SWCAA within 45 days of test completion.

R8. Emission Test Reports

This reporting requirement is taken from ADP 10-2929, Condition 44 and Appendices A, B and E. The permittee is required to notify SWCAA in advance of all required source testing so that SWCAA personnel may be present during testing. Emission test results and contemporaneous operational data must be reported to SWCAA within 45 days of test completion.

R9. Emission Monitoring Reports

This reporting requirement is taken from ADP 10-2929, Condition 44 and Appendix F. Emission monitoring results, response check documentation and contemporaneous operational data must be reported to SWCAA within 45 days of monitoring completion.

R10. Combustion Turbine/HRSG NO_x Emission Trial Reports

This reporting requirement is taken from ADP 10-2929, Condition 44 and Appendix C. Emission test results and associated operational data must be reported to SWCAA within 45 days of test completion.

R11. General Acid Rain Reports

This reporting requirement incorporates general Acid Rain reporting requirements found in 40 CFR 75.60, 75.61 and 75.63. Advance notification within specified time periods is required for the date each unit commences commercial operation, CEMS/COMS certification and recertification tests, and relative accuracy test audits for Acid Rain affected units. The reports identified in 40 CFR 75, Sections 61 and 63 concern notification and application for CEMS certification and recertification for affected units. An application for certification or recertification is required for Acid Rain affected units. Each certification application is to be submitted in electronic or paper format as specified by the EPA Administrator.

X. COMPLIANCE HISTORY

SWCAA has issued a total of three Field Notices of Correction (FNOC) and/or Field Notices of Violation (FNOV) to Mint Farm during the last five year period. The Field Notices are summarized as follows:

<u>Field Notice /Issue Date</u>	<u>Cited Violation</u>
Notice of Correction #3591 Issued – 10/1/2009	Excessive NO _x emissions from the Combustion Turbine/HRSG on August 28, 2009. This incident was related to a seal failure in the primary ammonia pump for the SCR catalyst system. The emissions were determined to be unavoidable per SWCAA 400-107(2).
Notice of Correction #3579 Issued – 8/21/2008	Excessive NO _x emissions from the Combustion Turbine/HRSG on August 13, 2008. This incident was related to initial commissioning of the combustion turbine's steam augmentation system. The emissions were determined to be unavoidable per SWCAA 400-107(2).
Notice of Correction #3574 Issued – 5/8/2008	Excessive NO _x and CO emissions from the Combustion Turbine/HRSG on March 30, 2008. This incident was related to a start-up sequence that was interrupted/delayed by faulty feedback from a failed sensor. The emissions were determined to be unavoidable per SWCAA 400-107(2).

XI. TITLE V PERMIT ACTIONS**1. Current Permitting Action****Initial Permit – SW08-15-R0**

Application received:	September 9, 2008
Application complete:	September 19, 2008
Application sent to EPA:	September 24, 2008
Draft permit issued:	April 25, 2011
Proposed permit issued:	June 7, 2011
Final permit issued:	June 13, 2011

2. Previous Permitting Actions

None.

XII. APPENDICES

Appendix A Combustion Turbine/HRSG – Emission Testing Requirements

Appendix A contains an emission testing protocol to be used when conducting periodic testing of the Combustion Turbine/HRSG. The testing protocol is taken directly from ADP 10-2929, Appendix A *Emission Testing Requirements Combustion Turbine/HRSG*.

Appendix B Combustion Turbine/HRSG – Continuous Monitoring Requirements

Appendix B contains performance specifications for the continuous monitoring systems installed on the Combustion Turbine/HRSG. The specifications are applicable to the CEMS for NO_x, O₂, and CO, and the PEMS for NH₃. The performance specifications are taken directly from ADP 10-2929, Appendix B *Continuous Monitoring Requirements Combustion Turbine/HRSG*.

Appendix C Fuel Gas Heater – Emission Testing Requirements

Appendix C contains an emission testing protocol to be used when conducting periodic testing of the Fuel Gas Heater. The testing protocol is taken directly from ADP 10-2929, Appendix E *Emission Testing Requirements Fuel Preheater*.

Appendix D Fuel Gas Heater – Emission Monitoring Requirements

Appendix D contains an emission monitoring protocol to be used when conducting annual monitoring for the Fuel Gas Heater. The monitoring protocol is taken directly from ADP 10-2929, Appendix F *Emission Monitoring Requirements Fuel Preheater*.

Appendix E Acid Rain Permit No. SW-ARP-3-R0

Appendix E contains Mint Farm's initial Acid Rain Application and Permit. The initial permit (number SW-ARP-3-R0) will be issued concurrent with this Air Operating Permit, and will remain effective through the expiration date of this Air Operating Permit.

