

Air Permit Review

Permit Issue Date: **date, 2011**

Region: Raleigh Regional Office
County: Northampton
NC Facility ID: 6600074
Inspector's Name: Will Wike
Date of Last Inspection: 06/09/2010
Compliance Code: 3 / Compliance - inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Pleasant Hill Compressor Station Facility Address: Pleasant Hill Compressor Station 2784 NC 48 Hwy Pleasant Hill, NC 27866 SIC: 4922 / Natural Gas Transmission NAICS: 48621 / Pipeline Transportation of Natural Gas Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: NSPS: NESHAP: 15A NCAC 2D .1111 (Subpart ZZZZ) PSD: PSD Avoidance: NC Toxics: 112(r): Other:
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 6600074.11A Date Received: 02/18/2011 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 09186/T01 Existing Permit Issue Date: 08/22/2007 Existing Permit Expiration Date: 07/31/2012
Ron Harrison Compressor Engine Engineer (232) 535-5458 2410 Pruden Blvd. Suffolk, VA 23434	Bill Christian Manager of Operations (304) 357-2503 34646 Old Valley Pike Strasburg, VA 22657	Joe Morgan Environ Safety & Sustainability Cord. (304) 357-2196 1700 MacCorkle Ave SE Charleston, WV 25314	
Review Engineer: Mark Cuilla Review Engineer's Signature: Date: date, 2011		Comments / Recommendations: Issue 09186/T02 Permit Issue Date: date, 2011 Permit Expiration Date: date, 2016	

I. Purpose of Application

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (**09186T01**) was issued on **August 22, 2007**, and is currently scheduled to expire on **July 31, 2012**. The renewal application was received on **February 18, 2011**, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

II. Facility Description

The facility is a natural gas pumping station. The main emission sources are the four reciprocating engines (three compressors and one generator).

III. History/Background/Application Chronology

August 22, 2007 – Permit **09186T01** issued as a Title V renewal.

June 9, 2010 – RRO completed annual facility inspection. See Section IX of this Document for a discussion.

February 18, 2011 – Permit application **6600074.11A** received as a TV renewal application. Application was deemed complete for processing.

date, 2011 – DRAFT permit sent to Permittee and Regional Office for comment prior to the public notice period.

date, 2011 – DRAFT permit sent to 30-day public notice and 45-day EPA review prior to issuance.

IV. Permit Modifications/Changes and ESM Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Pages	Section	Description of Changes
Attachment	Insignificant activities	-amended permit revision number -updated equipment descriptions where necessary
Cover	-	-amended all dates and permit revision numbers -corrected facility mailing address
TOC	-	-removed all references to Part II (here and throughout permit)
All	Header	-amended permit revision number
3	Equipment Table 2.1 A (table)	-added MACT (Subpart ZZZZ) designations -added MACT permit condition reference
4	2.1 A.1.b 2.1 A.2.b	-corrected testing rule cross reference -corrected testing rule cross reference
4-7	2.1 A.3	-added specific MACT permitting condition language
7-17	General Conditions	-updated shell conditions (v3.4)
18	List of Acronyms	-added acronyms for CAIR, NAA, and RACT per current shell

Equipment descriptions were modified in TVEE to add MACT Subpart designations where necessary as part of this permit renewal.

V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
15A NCAC 2D .0521, Control of Visible Emissions

A regulatory review for these existing requirements will not be included in this document. However, as part of this permit renewal a reference to 15A NCAC 2D .1111, Maximum Achievable Control Technology was added to the permit as an applicable requirement. See Section VI of this Document for a discussion.

VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS – The Permittee is not currently subject to any New Source Performance Standards. This permit renewal does not affect this status.

NESHAPS/MACT – The facility is classified as a minor source of hazardous air pollutants.

1. 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (Subpart YYYY). This Subpart applies to all existing, new, or reconstructed stationary combustion turbines [40 CFR 63.6085]. Because this facility is classified as a Title III minor facility and because it does not operate combustion turbines, this Subpart does not apply. This permit renewal does not affect this status.
2. 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ). The Permittee operates:
 - three natural gas-fired four-stroke rich burn (4SRB) internal combustion engines (each rated at 467 maximum brake horsepower output and 3.625 million Btu per hour heat input; **ID Nos. ES-15301 through ES-15303**); and
 - one natural gas-fired four stroke rich burn (4SRB) internal combustion emergency generator (rated at 250 maximum brake horsepower output and 150 kW; **ID No. ES-153G1**).

At the time of the last permit renewal, these units were determined to not have any requirements under this Subpart because of an exemption found in the former 40 CFR 63.6590(b)(3). However, EPA promulgated modifications to this Subpart on **January 18, 2008, March 3, 2010, and August 20, 2010**. As part of those modifications, these units lost their exemption from the Subpart. The following table indicates the requirements for each of the types of sources operated at the facility (Source - EPA Summary Table October 2010):

Requirements	Existing Non-Emergency Spark Ignition 4SRB (100≤Hp≤500) (ID Nos. ES-15301 - ES-15303)	Existing Emergency Spark Ignition (≤500Hp) (ID No. ES-153G1)
Compliance Date	October 19, 2013	October 19, 2013
Emission Limitations and/or Operating Limitations	63.6603 Table 2d	63.6603 Table 2d
Fuel Requirements	NA	NA
Performance Tests	NA	NA
Monitoring, Installation, Collection, Operation and Maintenance Requirements	63.6625(e), (h), and (j)	63.6625(e), (f), (h), and (j)
Initial Compliance	NA	NA
Continuous Compliance	63.6605 63.6640	63.6605 63.6640
Notification Requirements	NA	NA
Recordkeeping Requirements	63.6655 (except (c) and (f))	63.6655 (except (c))
Reporting Requirements	63.6650 (except (g))	63.6650 (except (g))

As part of this permit renewal, the following permit condition has been added to the permit as Section 2.1 A.3 as follows:

3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. For these sources (**ID Nos. ES-15301 through ES-15303 and ES-153G1**), the Permittee shall demonstrate compliance by **October 19, 2013** with all applicable requirements of 15A NCAC 2D .1111 "Maximum Achievable Control Technology" and 40 CFR 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)."

Operating Limitations [40 CFR 63.6603 and Table 2d]

- b. For the emergency generator (**ID No. ES-153G1**), the Permittee must:
- i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - ii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- c. For the non-emergency generators (**ID Nos. ES-15301 through ES-15303**), the Permittee must:
- i. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
 - ii. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and
 - iii. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.
- d. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirements above. The oil analysis must be performed at the same frequency specified for changing the oil above. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

Continuous Compliance Requirements [40 CFR 63.6605 and 63.6640]

- e. The Permittee must be in compliance with the emission limitations and operating limitations in this subpart at all times.

- f. *The Permittee must operate and maintain any affected source, including associated monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.*
- g. *The Permittee must report each instance in which each operating limitation above were not met. These instances are deviations from the operating limitations above. These deviations must be reported according to the requirements in 40 CFR 63.6650.*
- h. *The Permittee must report each instance in which the applicable requirements in the General Provisions to Subpart ZZZZ were not met.*
- i. *For the emergency generator (ID No. ES-153G1), the Permittee must operate according to the following requirements. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described below is prohibited. If the Permittee does not operate the engine according to the following requirements the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.*
 - i. *There is no time limit on the use of emergency stationary RICE in emergency situations.*
 - ii. *The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.*
 - iii. *The Permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.*

Monitoring, Installation, Collection, Operation and Maintenance Requirements [40 CFR 63.6625]

- j. *The Permittee must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.*
- k. *For the emergency generator (ID No. ES-153G1), the Permittee must install a non-resettable hour meter if one is not already installed.*
- l. *The Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.*

Recordkeeping Requirements [40 CFR 63.6655]

- m. *The Permittee must keep the following records:*
 - i. *A copy of each report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).*
 - ii. *Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.*
 - iii. *Records of all required maintenance performed on the air pollution control and monitoring equipment.*
 - iv. *Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.*
- n. *The Permittee must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.*
- o. *The Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE according to your own maintenance plan.*
- p. *For the emergency generator (ID No. ES-153G1), the Permittee you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.*

Reporting Requirements [40 CFR 63.6650]

- q. *The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. At a minimum, the report must contain the following information:*
 - i. *Company name and address.*
 - ii. *Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.*
 - iii. *Date of report and beginning and ending dates of the reporting period.*

- iv. *If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.*
 - v. *The total operating time of the stationary RICE for each deviation from an emission or operating limitation that occurred during the reporting period.*
 - vi. *For each deviation from an emission or operating limitation that occurs for a stationary RICE, the information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.*
3. 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Natural Gas Transmission and Storage (Subpart HHH). This Subpart applies to facilities that process, upgrade, transport or store natural gas prior to delivery to a local distribution company (LDC) or a final end user if no LDC is present. The final standards for natural gas transmission and storage facilities require that the owner or operator of a major source of HAP reduce HAP emissions from glycol dehydration units through the application of air emission control equipment or pollution prevention measures, or a combination of both. Because this facility is classified as a Title III minor facility and because it does not operate glycol dehydration units, this Subpart does not apply. This permit renewal does not affect this status.

PSD – The Permittee is not currently subject to any Prevention of Significant Deterioration requirements as a PSD minor facility. This permit renewal does not affect this status.

112(r) – The Permittee is not subject to Section 112(r) of the Clean Air Act requirements because the facility does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source thresholds, and use an active control device to meet an applicable standard. The facility's equipment does not meet the criteria for CAM applicability because no control equipment is installed. This permit renewal does not affect this status.

VII. Facility Wide Air Toxics

The facility is not currently subject to NC Air Toxics as never triggering a toxics review. This permit renewal does not affect this status.

VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years' emission inventories from the facility:

Pollutant(s)	2008 Actual Emissions (tpy)	2009 Actual Emissions (tpy)
CO	4.93	6.46
NO _x	2.97	3.87
PM ₁₀	0.01	0.02
VOC	0.07	0.08
Total HAP/TAP	0.03	0.04

IX. Stipulation Review

The facility was last inspected by Will Wike of the RRO on **June 9, 2010**. Based on his inspection the facility appeared to be in compliance with applicable air quality regulations. There were no noted stipulation modifications necessary at this time.

X. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. The state of Virginia is an affected state within 50 miles of this facility.

XI. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for this renewal.

RRO recommends issuance of the permit and was presented with a DRAFT permit prior to notice and issuance.

RCO concurs with RRO's recommendation to issue the renewed air permit.