

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

4/16/2014

Certified Mail

Mr. Joseph Morgan
CRAWFORD COMPRESSOR STATION
1700 MacCorkle Avenue
Charleston, WV 25314

Facility ID: 0123000137
Permit Number: P0109255
County: Fairfield

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Lancaster Eagle Gazette. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,



Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-CDO; Kentucky

PUBLIC NOTICE
4/16/2014 Issuance of Draft Air Pollution Title V Permit

CRAWFORD COMPRESSOR STATION

Environmental Health and Safety, 1700 MacCorkle Avenue, S.E.

Greenfield Twp., OH 25314

Fairfield County

FACILITY DESC.: Pipeline Transportation of Natural Gas

PERMIT #: P0109255

PERMIT TYPE: Renewal

PERMIT DESC: Title V Renewal Permit of Compressor Station includes Prime Mover Recip Engines, Dehydrators, Generators, and Glycol Reclaimers.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Luther Mountjoy, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778



Statement of Basis For Air Pollution Title V Permit

Facility ID:	0123000137
Facility Name:	CRAWFORD COMPRESSOR STATION
Facility Description:	Compressor Station
Facility Address:	Environmental Health and Safety, Greenfield Twp., OH 25314
Permit #:	P0109255, Renewal

This facility is subject to Title V because it is major for:

- Lead
 Sulfur Dioxide
 Carbon Monoxide
 Volatile Organic Compounds
 Nitrogen Oxides
 Particulate Matter ≤ 10 microns
 Single Hazardous Air Pollutant
 Combined Hazardous Air Pollutants
 Maximum Available Control Technology Standard(s)
 GHG
 Title IV

A. Standard Terms and Conditions

Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01(U)?	Yes
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	No
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	N/A



<p>Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)</p>	<p>N/A</p>
<p>Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)</p>	<p>Emission limits for the following emission units have changed from the previous 2007 TV PTO. B013, B025, B026, B027, B032, P002, P003, P018, P019, and P020.</p> <p>The 2007 TV PTO contained several emission limits that utilized updated emission factors and additional calculations. However, no admin mod's had been implemented to the applicable PTI's to reflect those changes. In addition, other emission units in the 2007 TV PTO contained limits not representative of the applicable PTI's.</p> <p>After reviewing the findings with the facility, they submitted their requested emission limits, supporting calculations, and applicable compliance methods for each change. They are also submitting the appropriate admin mod's for the emission units to be changed (P002, P003, B013, B025, B026, B027, B032, P018, P019, and P020). Listed below are the emission units that are being modified and the new emission limits found in the current TV PTO Draft.</p> <p>B013 (PTI 01-6343) <i>0.08623 lbs SO2/hr</i> <i>0.86 lbs VOC/hr</i> <i>0.11 lbs NOx/hr</i> <i>0.45 lbs CO/hr</i> <i>0.003 lbs PM/hr</i></p> <p>B025 (PTI 01-5741) <i>0.067 lbs VOC/hr</i> <i>5.00 lbs NOx/hr</i> <i>8.41 lbs CO/hr</i> <i>0.044 lb PM/hr</i></p> <p>B026 (PTI 01-6343) <i>0.13 lbs SO2/hr</i> <i>0.77 lbs VOC/hr</i> <i>0.19 lbs NOx/hr</i> <i>0.57 lbs CO/hr</i> <i>0.004 lbs PM/hr</i></p> <p>B027 (PTI 01-6402) <i>0.07 lb SO2/hr</i></p>



	0.04 lb VOC/hr 2.76 lbs NOx/hr 4.64 lbs CO/hr 0.024 lbs PM/hr P002 (PTI 01-8232) <i>0.022 lbs SO2/hr</i> <i>0.038 lbs NOx/hr</i> <i>0.032 lbs CO/hr</i> <i>0.003 lbs PM/hr</i> 6.26 lb VOC/hr P003 (PTI 01-8634) <i>0.053 lbs SO2/hr</i> <i>7.77 lbs VOC/hr</i> <i>1.32 lbs NOx/hr</i> <i>2.20 lbs CO/hr</i> <i>0.014 lbs PM/hr</i>
Please identify the affected unit(s) and pollutant(s) for which a Compliance Assurance Monitoring (CAM) Plan is required per 40 CFR 64. Provide more emissions unit specific detail in Section C.	N/A

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
N/A	N/A	N/A	N/A

C. Emissions Unit Terms and Conditions

Key: EU = emissions unit ID ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit) OR = operational restriction M = monitoring requirements ENF = did noncompliance issues drive the monitoring requirements?	R = record keeping requirements Rp = reporting requirements ET = emission testing requirements (not including compliance method terms) St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement Misc = miscellaneous requirements
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EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
B010	5 gms NOx/HP-hr., 0.3 gm VOC/HP-hr., 2 gms CO/HP-hr	N	Y	N	Y	Y	N	Y	Y	N	N	Y	31-05(A)(3) (pti# 01-379) OR: Combust only natural gas M: presence of pilot flame. R: Monthly record flare operating hours. RP: Semi-annual report for pilot flame or flare not functioning.
B013	0.086 lbs /hr, and 0.005 TPY of SO2, 0.86 lbs/hr and 3.78 TPY of VOC's, 0.11 lbs/hr and 0.48 TPY of NOx, 0.45 lbs/hr and 1.97 TPY of CO, 0.003 lbs PM/hr, 0.013 TPY of PM.	N	Y	N	Y	Y	N	Y	Y	N	N	Y	31-05(A)(3) (pti# 01-6343) OR: Combust only natural gas M: presence of pilot flame. R: Monthly record flare operating hours. RP: Semi-annual report for pilot flame or flare not functioning.
B024	2.2 lbs/hr of NOx, 3.93 lbs/hr of CO, 1.5 lbs/hr of VOC.	N	Y	N	Y	Y	N	Y	Y	N	N	N	31-05(A)(3) (PTI # 01-4643) OR: 500 operating hours. M: Operating hour. R: Monthly record of rollin, 12-month summation of operating hours. Rp: Semi-annual report for exceedence of rolling 12-month restriction.
B025	5.0 lbs/hr NOx, 8.41 lbs/hr of CO, 0.067 lbs/hr of VOC's, and 0.044 lbs/hr of PE.	N	Y	N	Y	Y	N	Y	Y	Y	N	N	31-05(A)(3) (PTI # 01-5741) OR: 1000 operating hours. M: Operating hour. R: Monthly record of rolling, 12-month summation of operating hours. Rp: Semi-annual report for exceedence of rolling, 12-month restriction.



EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
B026	0.13 lbs/hr and 0.007 TPY of SO ₂ , 0.77 lbs/hr and 3.37 TPY of VOC's. 0.19 lbs/hr and 0.83 TPY of NO _x , 0.57 lbs/hr and 2.50 TPY of CO, and 0.004 lbs/hr and 0.018 TPY of PE.	N	Y	N	Y	Y	N	Y	Y	N	N	N	31-05(a)(3) (pti # 01-6343) OR: Combust only natural gas M: Presence of Pilot Flame R: Monthly record flare operating hours Rp: Qtrly report for pilot flame or flare not functioning.
B027	2.76 lbs/hr of NO _x , 4.64 lbs/hr of CO, 0.04 lbs/hr of VOC's, 0.07 lbs/hr of SO ₂ , and 0.024 lbs/hr of PE.	N	Y	N	N	N	N	N	Y	N	N	N	31-05(a)(3) (pti # 01-6402) RP: Perf Tests
B032	0.09 lbs/hr NO _x , 0.27 lbs/hr CO, 0.09 lbs/hr VOC's, 0.002 lbs/hr PM, and 0.064 lbs/hr SO ₂ .	N	Y	N	Y	Y	N	Y	Y	N	N	N	31-05(a)(3) (pti # 01-6835) OR: Combust only natural gas M: Presence of Pilot Flame (thermocouple) R: Monthly record flare operating hours Rp: Qtrly report: -use of non-nat gas fuel, pilot flame or flare not working, use of non-glycol.
P002	0.032 lbs/hr and 0.14 PTY of CO, 0.038 lbs/hr and 0.17	N	Y	N	Y	Y	N	Y	Y	N	N	N	31-05(a)(3) (pti # 01-6835) OR: 126,500 gal of Triethylene glycol and 28,750 gal of diethylene glycol, 90 gal/hr proc. Rate, M: Wet analysis for Benzene, Toluene, ethylbenzene, xylene



EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
	TPY of NOx, 0.022 lbs/hr and 0.0012 TPY of SO2, 0.003 lbs/hr and 0.013 TPY of PM, and 6.26 lbs/hr and 3.51 TPY of VOC's.												(BTEX), Daily records:ID and glycol type, results of BTEX analysis, gal of glycol processed, operating hours. R: Monthly record flare operating hours Rp: Deviation and annual for exceedences.
P003	2.20 lbs/hr and 9.63 TPY of CO, 1.32 lbs/hr and 5.79 TPY of NOx, 0.053 lbs/hr and 0.0029 TPY of SO2, 0.014 lbs/hr and 0.061 TPY of PM, and 7.77 lbs/hr and 34.03 TPY of VOC's	N	Y	N	Y	Y	N	Y	Y	N	N	N	31-05(a)(3) (pti # 01-8232) OR: 126,500 gal of Triethylene glycol and 28,750 gal of diethylene glycol, 90 gal/hr proc. Rate, M: Wet analysis for Benzene, Toluene, ethylbenzene, xylene (BTEX), Daily records:ID and glycol type, results of BTEX analysis, gal of glycol processed, operating hours. R: Monthly record flare operating hours Rp: Deviation and annual for exceedences.
B004, B005, B010, B011, B012, B013, B015, B016, B017, B018, B019,	20 % Opacity on stack emissions	17-07(A)	N	N	N	N	N	N	N	Y	N	N	ET: If required, Method 9



EU(s)	Limitation	Basis		ND	OR	M	ENF	R	Rp	ET	St	Misc	Comments
		SIP (3745-)	Other										
B020, B021, B022, B023, B024, B025, B026 B027, B032, B034, P002, P003,													
B013, B026, B032, P003	0.02 lb PM/MMBTU of actual heat input	17-10(B)(1)	N	N	N	N	N	N	N	N	N	N	OR: Only burn Natural Gas. ET: If required, demonstrate compliance with methods and procedures specified in OAC rule 3745-17-03(B)(9).
B018, B019, B020, B025, B027, B034	0.310 lb PM/MMBTU of actual heat input	17-11(B)(5)(a)	N	N	N	N	N	N	N	N	N	N	Stationary Small Internal Combustion Engine ET: If required, demonstrate compliance with methods and procedures specified in OAC rule 3745-17-03(B)(10)
B004, B005, B010, B011, B012, B015, B016, B017, B021, B022, B023, B024, B025	0.062 lb PM/MMBTU of actual heat input	17-11(B)(5)(b)	N	N	N	N	N	N	N	N	N	N	Stationary Large Internal Combustion Engine ET: If required, demonstrate compliance with methods and procedures specified in OAC rule 3745-17-03(B)(10).



B004, B005, B010, B011, B012, B013, B015, B016, B017, B018, B019, B020, B021, B022, B023, B024, B026, B032, B034	Exempt from limit on SO2 per 3745-18-06 (A)	18-06(G)	N	Y	N	N	N	N	N	N	N	N	Exempt from this requirement pursuant to OAC rule 3745-18-06(A).
B004, B005, B010, B011, B012, B015, B016, B017, B018, B019, B020, B021, B022, B023, B034	Exempt, existing spark ignition RICE	N	Y	Y	N	N	N	N	N	N	N	N	Exempt from 40 CFR63, Subpart ZZZZ.
B025, B027, B018, B019, B020, B034	emissions of formaldehyde shall not exceed 10.3 ppmvd at 15% O2.	N	Y	N	Y	Y	N	Y	Y	N	N	N	40 CFR63, Subpart ZZZZ OR: Minimize idle & startup not to exceed 30 min. M: Monitor that RICE is operating R: malfunctions, idle & startup exceedances Rp: Deviation Rpts, Cmplnce Rpts



DRAFT

**Division of Air Pollution Control
Title V Permit
for
CRAWFORD COMPRESSOR STATION**

Facility ID:	0123000137
Permit Number:	P0109255
Permit Type:	Renewal
Issued:	4/16/2014
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
CRAWFORD COMPRESSOR STATION

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Draft Title V Permit
CRAWFORD COMPRESSOR STATION
Permit Number: P0109255
Facility ID: 0123000137

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0123000137
Facility Description: Compressor Station
Application Number(s): A0012665, A0012666, A0043462
Permit Number: P0109255
Permit Description: Title V Renewal Permit of Compressor Station includes Prime Mover Recip Engines, Dehydrators, Generators, and Glycol Reclaimers.
Permit Type: Renewal
Issue Date: 4/16/2014
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0082373

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

CRAWFORD COMPRESSOR STATION
Environmental Health and Safety
1700 MacCorkle Avenue, S.E.
Greenfield Twp., OH 25314

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Central District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Draft Title V Permit
CRAWFORD COMPRESSOR STATION
Permit Number: P0109255
Facility ID: 0123000137
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))



c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the



probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Central District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Central District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally



enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Central District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))



4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.



- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))



10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible



Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Central District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Central District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.
 - b. The permittee's current compliance status.



- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Central District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Central District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))



16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)



19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA DAPC, Central District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Central District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine



whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Central District Office in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Central District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Central District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.



Draft Title V Permit
CRAWFORD COMPRESSOR STATION
Permit Number: P0109255
Facility ID: 0123000137
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



- 1) All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
- 2) The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. Although Ohio EPA has determined that this Maximum Achievable Control Technology NESHAP (MACT) applies to the pre-NSPS engine(s) identified in this permit, at this time Ohio EPA is not accepting delegation for area sources subject to MACT requirements. Instead, U.S. EPA will retain the authority to enforce this standard for area sources. Please be advised, that all requirements associated with Part 63 Subpart ZZZZ are in effect and shall be enforced by U.S. EPA. The complete requirements of this rule (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.
- 3) The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63:

B003	Boiler- Kewanee 8560, 8.2 mm Btu/hr Heating System Boiler #1.
B029	4SRB Chrysler IND-32 Type 188, 31 Brake Horsepower, Rating 28 HP, Fire Pump #099P1.
B030	Boiler- Kewanee 8560, 8.2 mm Btu/hr Heating System Boiler #2.
B031	NATCO T-1372 207 01 Line Heater 6,000 MMBTU/HR
B033	LINE HEATER #3



Draft Title V Permit
CRAWFORD COMPRESSOR STATION
Permit Number: P0109255
Facility ID: 0123000137
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C. Emissions Unit Terms and Conditions



1. B004, Recip Engine/Integral Compr #09912

Operations, Property and/or Equipment Description:

4SLB Delaval HVC-12 , Recip Engine COMPR #09912 3,300 Brake HP, Product Rating 3000HP

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(5)(b)	The particulate emissions (PE) shall not exceed 0.062 lb./MMBtu of actual heat input.
c.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
d.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.

(2) Additional Terms and Conditions

a. This emission unit is an existing spark ignition 4-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

(Authority for term: OAC rule 3745-77-07(A)(1))



d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rules 3745-17-03(B)(1) and 3745-77-07(C)(1)]

- b. Emission Limitation: PE shall not exceed 0.062 lb/MMBTU of actual heat input.

Applicable Compliance Method: Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 4-stroke, lean-burn, natural gas-fired reciprocating engine.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

- (1) None.



2. B005, Recip Engine /Integral Compr #09913

Operations, Property and/or Equipment Description:

2SLB Cooper-Bessemer 8W-330C, Recip Engine COMPR #09913 4,400 Brake HP, Product Rating 4000HP

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #01-364)	See b)(2)b.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions (PE) shall not exceed 0.062 lb./MMBtu of actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
e.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.

- (2) Additional Terms and Conditions
 - a. This emission unit is an existing spark ignition 2-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs. This emissions unit is exempt from OAC rule 3745-18-06(G) during any calendar day in which natural gas is the only fuel burned.
 - b. The best available technology (BAT) determination for this emissions unit was established to be compliance with the requirements of OAC 3745-17-11.



c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-364]

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI #01-364]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI #01-364]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rules 3745-17-03(B)(1), 3745-77-07(C)(1), and PTI #01-364]

- b. Emission Limitation: PE shall not exceed 0.062 lb/MMBTU of actual heat input.

Applicable Compliance Method: Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 2-stroke, lean-burn, natural gas-fired reciprocating engine.



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If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77-07(C)(1), and PTI #01-364]

g) Miscellaneous Requirements

- (1) None.



3. B010, Recip Engine/IntegralCOMPR #09914

Operations, Property and/or Equipment Description:

2SLB Cooper-Bessemer 10W-330C, Recip Engine COMPR #09914 5,500 Brake HP, Product Rating 5000HP

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #01-379)	Emissions shall not exceed: 5 gms NOx/HP-hr. 0.3 gm VOC/HP-hr 2 gms CO/HP-hr See b)(2)a.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions (PE) shall not exceed 0.062 lb./MMBtu of actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
e.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.

(2) Additional Terms and Conditions

- a. This emission unit is an existing spark ignition 2-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs.



c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI #01-379]

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI #01-379]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI #01-379]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI #01-379]

- a. Emission Limitation: PE shall not exceed 0.062 lb/MMBTU of actual heat input.

Applicable Compliance Method: Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 2-stroke, lean-burn, natural gas-fired reciprocating engine.



If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77- 07(C)(1), and PTI #01-379]

b. Emission Limitation:

5 gms NO_x/HP-hr

0.3 gm VOC/HP-hr

2 gms CO/HP-hr.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emission unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of the issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for CO, NO_x, and VOC.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40 CFR Part 60, Appendix A, Methods 1-4, 7E, 10, 18 and 40 CFR Part 266, Appendix IX, Method 0011.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.



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A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the test and submitted to Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office.

[Authority for term: OAC rules 3745-17-03(B)(10), 3745-77- 07(C)(1), and 40 CFR Part 60, Appendix A, and PTI #01-379]

g) Miscellaneous Requirements

- (1) None.



4. B013, TEG DEHY #1

Operations, Property and/or Equipment Description:

Glycol Reclaimer Unit #2 0.39 mmBtu/hr , Consists of 0.19 MMBtu/hr boiler/preheater and 0.20 MMBtu/hr vacuum reboiler.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-6343)	Sulfur dioxide (SO ₂) emissions shall not exceed 0.0862 lb/hr and 0.005 ton/yr. Volatile organic compound (VOC) emissions shall not exceed 0.86 lb/hr and 3.78 tons/yr. Nitrogen oxide (NO ₂) emissions shall not exceed 0.11 lb/hr and 0.48 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.45 lb/hr and 1.97 tons/yr. Particulate (PM) emissions shall not exceed 0.003 lb/hr and 0.013 ton/yr.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-10(B)(1)	Particulate (PE) emissions from the boiler stach shall not exceed 0.020 lb/mmBtu actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).



(2) Additional Terms and Conditions

- a. The emissions unit shall be equipped with a flare to control organic compound emissions. The flare shall be fired with natural gas.
- b. The flare shall be designed and operated in a manner that will ensure no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, as determined by Method 22 referenced in 40 CFR 60.18 (f).
- c. The flare shall be operated at all times when organic compound emissions may be vented to it.
- d. The flare shall be used only when the net heating value of the gas being combusted is 200 Btu/scf or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f).
- e. The flare shall be designed with an exit velocity that satisfies the requirements of 40 CFR 60.18(f).

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745 77 07(A)(1), PTI# 01-6343]

d) Monitoring and/or Recordkeeping Requirements

- (1) The flare shall be monitored for the presence of a pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame.

[OAC rule 3745-77-07(C)(1), and PTI # 01-6343]

- (2) The permittee shall record the following information each month:

- a. All periods during which there was no pilot flame; and
- b. The operating times for the flare, monitoring equipment, and the associated emissions unit.

[OAC rule 3745-77-07(C)(1), and PTI # 01-6343]

- (3) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and the quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1), and PTI # 01-6343]



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI # 01-6343]

- (2) The permittee shall report the use of any material other than glycol in this emissions unit within 30 days after the occurrence.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI # 01-6343]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rules 3745-17-03(B)(1), 3745-77-07(C)(1), 40 CFR Part 60 Appendix A, and PTI # 01-6343]

b. Emission Limitation:

PE from the boiler stack shall not exceed 0.020 lb PE/MMBtu of actual heat input.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(9).

[Authority for term: OAC rules 3745-17-03(B)(9), 3745-77-07(C)(1), and PTI # 01-6343]



c. Emission Limitation:

NOx emissions shall not exceed 0.11 lb/hr and 0.48 ton/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.068 lb NOx/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by the 1.15 MMBtu/hr NAO flare plus the product of an emission factor of 0.098 lb NOx/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 0.35 MMBtu/hr NATCO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated..

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60 Appendix A, and PTI # 01-6343]

d. Emission Limitation:

CO emissions shall not exceed 0.45 lb/hr and 1.97 tons/yr

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.37 lb CO/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by 1.15 MMBtu/hr NAO flare plus the product of an emission factor of 0.0824 lb CO/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 0.35 MMBtu/hr NATCO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60 Appendix A, and PTI # 01-6343]



e. Emission Limitation:

VOC emissions shall not exceed 0.8623 lb/hr and 3.78 tons/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the Gas Research Institute simulation program, GLYCalc version 3, based on wet gas analyses of the gases assuming a dehydrator gas feed rate of 250 MMscf/day multiplied by 0.02 representing 98% flare destruction efficiency (0.84 lb VOC/hr controlled emissions) plus the product of an emission factor of 0.014 lb VOC/MMBtu (AP-42 Tbl 13.5-1, 1/95; 10% of THC assumed to be VOC) multiplied by 1.15 MMBtu/hr NAO flare burner rate plus the product of an emission factor of 0.005 lb VOC/MMBtu (AP-42 Tbl 1.4-2, 7-98) multiplied by 0.35 MMBtu/hr NATCO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated. Emission tests may be required, in accordance with test procedures approved by the Director, to demonstrate compliance with the hourly emission limitations.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI # 01-6343]

f. Emission Limitation:

PE shall not exceed 0.003 lb/hr, 0.013 ton/yr, and 0.020 lb/mmBtu actual heat input.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by the 1.15 MMBtu/hr NAO flare plus the product of an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by 0.35 MMBtu/hr NATCO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall



also be demonstrated. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI # 01-6343]

g. Emission Limitation:

SO₂ emissions shall not exceed 0.086 lb/hr and 0.005 ton/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.057 lb SO₂/MMBtu (20 gr S/100scf) multiplied the 1.15 MMBtu/hr NAO flare plus the product of an emission factor of 0.057 lb/MMBtu (20 g S/100 scf) multiplied by 0.35 MMBtu/hr NATCO reboiler burner.

The annual limitation was established based on an average annual sulfur concentration of 0.25 grains S per 100 cubic feet of natural gas. Therefore, compliance with the annual emission limitation shall be determined based on the emission factor of 0.000714 lb SO₂/MMBtu for the flare and reboiler. The annual limitation was established by multiplying this annual average hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6C.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI # 01-6343]

g) Miscellaneous Requirements

- (1) None.



5. B023, Recip Engine/Integral Compr #09910

Operations, Property and/or Equipment Description:

2SLB Worthington ML-10 Recip Engine COMPR #09910 3,080 Brake HP, Product Rating 2,800 HP.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions (PE) shall not exceed 0.062 lb./MMBtu of actual heat input.
c.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
d.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.

(2) Additional Terms and Conditions

a. This emission unit is an existing spark ignition 2-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]



d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1), and 40 CFR Part 60, Appendix A]

- b. Emission Limitation: PE shall not exceed 0.062 lb/MMBTU of actual heat input.

Applicable Compliance Method: Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 2-stroke, lean-burn, natural gas-fired reciprocating engine.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1), and 40 CFR Part 60, Appendix A]

g) Miscellaneous Requirements

- (1) None.



6. B024, Recip Engine GEN #099G1

Operations, Property and/or Equipment Description:

4SLB Waukesha F2895GL Recip Engine GEN #099G1 668 Brake HP, Product Rating 667 HP.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-4643)	Nitrogen oxides (NO _x) emissions shall not exceed 2.2 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 3.93 lbs/hr. Volatile organic compound (VOC) emissions shall not exceed 1.5 lbs/hr.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(5)(b)	The particulate emissions from the engine's exhaust shall not exceed 0.062 lb/mmBtu of actual heat input.
d.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.

(2) Additional Terms and Conditions

a. This emission unit is an existing spark ignition 4-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs.



c) Operational Restrictions

- (1) The maximum annual operating hours for this emissions unit shall not exceed 500 hours, based upon a rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-4643]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:

- a. The operating hours for each month.
- b. The amount of gas used in million cubic feet.
- c. The heat content of the gas in Btu/cubic foot.
- d. The rolling 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-4643]

- (2) The permittee shall maintain daily records of the following information:

- a. The date of each day of operation and the corresponding number of hours of operation.

[Authority for term: OAC rule 3745-77-07(C)(1), PTI 01-4643]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- a. all exceedances of the rolling, 12-month restriction on the hours of operation for this emissions unit;

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-4643]

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):



a. Emission Limitation:

0.062 pound particulate matter per million Btu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 4-stroke, lean-burn, natural gas-fired reciprocating engine.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77-07(C)(1), and PTI 01-4643]

b. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rules 3745-17-03(B)(1), 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-4643]

c. Emission Limitation:

NOx emissions shall not exceed 2.2 lbs/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-4643]



d. Emission Limitation:

CO emissions shall not exceed 3.93 lbs/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC Rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-4643]

e. Emission Limitation:

VOC emissions shall not exceed 1.5 lbs/hr.

Applicable Compliance Method:

Pollutant emissions shall be determined by employing the Gas Research Institute's simulation program GLYCalc version 3 or equivalent, wet gas analyses of the gases from the applicable stargaze fields, AP-42 emission factors for products of combustion, and as assumed destruction efficiency of 98% for the flare.

Emission tests may be required, in accordance with test procedures approved by the Director, to demonstrate compliance with the hourly emission limitations.

[Authority for term: 3745-77-07(C)(1), and PTI 01-4643]

g) Miscellaneous Requirements

(1) None.



7. B025, Recip Engine GEN #099G3

Operations, Property and/or Equipment Description:

4SRB Waukesha F817G Recip Engine GEN #099G3 213 Brake HP, Product Rating 194 HP.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-5741)	Nitrogen oxides (NO _x) emissions shall not exceed 5.00 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 8.41 lbs/hr. Volatile organic compound (VOC) emissions shall not exceed 0.067 lb/hr. Particulate emissions (PE) shall not exceed 0.044 lb/hr.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as specified by rule.
c.	OAC rule 3745-17-11(B)(5)(a)	The particulate emissions from the engine's exhaust stack shall not exceed 0.310 lb/mmBtu of actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-06(A).
e.	40 CFR Part 63 Subpart ZZZZ (40 CFR 63.6580 to 63.6675) In accordance with 40 CFR 63.6585, this emissions unit is a stationary reciprocating internal combustion engine (RICE) subject to the National Emissions Standards for	The existing, natural gas, stationary 4SRB spark ignition (SI) RICE, located at a major source for hazardous air pollutants (HAPs), shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ no later than October 19, 2013.



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.	
f.	40 CFR 63.6602 Table 2c #11 to Subpart ZZZZ	Following the compliance date of 10/19/13, emissions of formaldehyde shall not exceed 10.3 ppmvd at 15% O ₂ .

(2) Additional Terms and Conditions

- a. Following the compliance date of the NESHAP, the permittee shall limit the concentration of formaldehyde from the stationary RICE exhaust to 10.3 ppmvd or less at 15% O₂ at the outlet of the control device or from the exhaust stack of the engine.
- b. The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6595(a)(1)	The compliance date for Part 63 Subpart ZZZZ for existing SI RICE is 10/19/13.
Applicable Tables from Part 63, Subpart ZZZZ	Following the compliance date, comply with: emission limit in Table 2c #11; performance test methods in Table 4 #3; initial compliance demonstration in Table 5 #13; reporting requirements/frequency in Table 7; general provision from Subpart A in Table 8.
40 CFR 63.6602	Following the compliance date, maintain compliance with the emission limitation in Table 2c #11 (limit formaldehyde to 10.3 ppmvd at 15% O ₂) to Part 63 Subpart ZZZZ.
40 CFR 63.6602; 40 CFR 63.6612; and 40 CFR 63.6620	Conduct an initial performance test within 180 days following the compliance date or by 4/19/14, to demonstrate compliance with the formaldehyde emission standard and in accordance with the requirements specified in Tables 4 and 5 to the subpart.
40 CFR 63.6665	Meet all of the general provisions of Subpart A, from Sections 63.1 through 63.15, that apply to the SI RICE, as identified in Table 8 to Subpart ZZZZ.

c) Operational Restrictions

- (1) The maximum annual natural gas usage for the RICE shall not exceed 1000 hours per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-5741]



- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6605	General duty to minimize emissions, with good air pollution control practices for minimizing emissions; and compliance required at all times.
40 CFR 63.6625(h)	Minimize idle and startup time, not to exceed 30 minutes.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-5741]

d) Monitoring and/or Recordkeeping Requirements

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit. The maximum annual operating hours for this emissions unit shall not exceed 1000 hours, based upon a rolling, 12-month summation of the operating hours.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-5741]

- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6635	Except for monitor malfunctions, associated repairs, and required quality assurance activities, must continuously monitor that the RICE is operating. Must use all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) in calculations used to report emissions or operating levels.
40 CFR 63.6655(a)	Keep records of: 1. each notification and report submitted to comply with Subpart ZZZZ; 2. the occurrence and duration of each malfunction of the RICE and any control or monitoring equipment; 3. corrective actions taken during each period of malfunction to minimize emissions and restore normal operations; 4. records of performance tests; and 5. all required maintenance performed on air pollution control and monitoring equipment.
40 CFR 63.6625(h)	Maintain a record of each idle and/or startup time that exceeded 30 minutes.
40 CFR 63.6660	Records readily available and retained for at least 5 years after the date of occurrence or date of report according to 63.10(b)(1).

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-5741]



e) Reporting Requirements

- (1) A comprehensive written report on the results of the performance tests, conducted to demonstrate compliance with 40 CFR 63.6602, shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-5741]

- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6640(b)	Submit a report of each instance in which the emission limitation in Table 2c was not met; these deviations to be reported according to the requirements of 63.6650.
40 CFR 63.6640(e)	Submit a report of each instance in which the applicable requirements in Table 8 to Subpart ZZZZ, the general provisions from Subpart A, were not met.
40 CFR 63.6645(a)(1)	Submit all notifications required per 63.7(b) and (c); 63.8(e), (f)(4), and (f)(6); and 63.9(b) through (e), (g), and (h) that apply to the SI RICE.
40 CFR 63.6645(g)	Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin, as required by 63.7(b)(1).
40 CFR 63.6645(h); 40 CFR 63.6630(c); and OAC rule 3745-15-04(A)	Submit a Notification of Compliance Status for each initial compliance demonstration required in Table 5 to Subpart ZZZZ, including the performance test results, before the close of business on the 60 th day following the completion of the test; or within 30 days of the initial compliance demonstration if the demonstration does not include a performance test. OAC rule 3745-15-04(A) requires performance test results to be submitted within 30 days of the test date unless additional time is requested.
40 CFR 63.6650(a)	Submit each applicable report in Table 7 of Subpart ZZZZ.
40 CFR 63.6650(b)(1) to (5) and Part 63 Subpart ZZZZ Table 7 #1	Following the initial compliance date, submit Semiannual Compliance Reports to include the information identified in 63.6650(c) through (f), as applicable to the SI RICE. Following the initial compliance report, each subsequent report shall cover the reporting period from January 1st through June 30th and July 1st through December 31st. The Semiannual Compliance Reports must be postmarked or delivered no later than July 31st and January 31st.
40 CFR 63.6675 and Subpart ZZZZ Table 7 #1.a.ii	Definition of "limited use stationary RICE". Include in each Annual Compliance Report any exceedance of 100 hours of operation during the year.



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40 CFR 63.6650(c)	63.6650(c) contains the required information to be submitted in each compliance report.
40 CFR 63.6650(d)	63.6650(d) contains the required information to be submitted for each deviation from an emission or operating limitation not monitored by a continuous monitoring system (CMS).

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-5741]

- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-5741]

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

[Authority for term: 40 CFR Part 60, Appendix A, and PTI 01-5741]

b. Emission Limitation:

PE shall not exceed 0.044 lb/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 0.019 lb PE/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 213 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 60, Appendix A, and PTI 01-5741]



c. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the method and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-5741]

d. Emission Limitation:

NO_x emissions shall not exceed 5.00 lbs/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 2.21 lb NO_x/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 213 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI# 01-5741]

e. Emission Limitation:

VOC emission shall not exceed 0.067 lb/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 0.03 lb VOC/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 213 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI# 01-5741]



f. Emission Limitation:

CO emissions shall not exceed 8.41 lbs/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 3.72 lbs CO/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 213 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI# 01-5741]

g. Emission Limitation:

PE emission from the engine exhaust stack shall not exceed 0.310 lb/hr.

Applicable Compliance Method:

Compliance may be based upon an emission factor of 0.0095 lb PE₁₀/MMBtu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-3 (7/00).

If required, the permittee shall demonstrate compliance with the emission limitations in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77-07(C)(1), and PTI# 01-5741]

h. Emission Limitations:

10.3 ppmvd formaldehyde at 15% O₂

Applicable Compliance Method:

Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date or no later than 4/19/14, to demonstrate compliance with the formaldehyde limitation in the NESHAP. The appropriate tests methods from Table 4 to Subpart ZZZZ shall be conducted.

The performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to



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measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.

The following test methods shall be employed to demonstrate compliance with the emission limitation for formaldehyde:

- i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points
- ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00: to measure O₂ at the inlet and outlet of the control device if demonstrating compliance through the percent control of CO or to determine the O₂ concentration of the stationary RICE exhaust to normalize the CO concentration.
- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary RICE exhaust.
- iv. Method 320 or Method 323 of 40 CFR Part 63,, Appendix A; or ASTM D 6348-03 to measure formaldehyde at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure formaldehyde at the exhaust of the stationary RICE.
- v. The following equation shall be used to normalize the formaldehyde concentrations to a dry basis and to 15 percent oxygen (O₂)**:

$$C_{adj} = C_d (5.9 / 20.9 - \% O_2)$$

Where:

C_{adj}= calculated formaldehyde concentration adjusted to 15 percent O₂.

C_d= measured concentration of formaldehyde, uncorrected.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

%O₂ = measured O₂ concentration, dry basis, percent.

** Optionally, the pollutant concentrations can be corrected to 15% O₂ using a CO₂ correction factor, by calculating the fuel factor (F_o value) using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

The permittee shall notify the Ohio EPA Central District Office Division of Air Pollution Control in writing of the scheduled performance test date at least 60 calendar days before it is scheduled, to allow the agency time to



review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Ohio EPA Central District Office Division of Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI# 01-5741]

g) Miscellaneous Requirements

- (1) None.



8. B026, TEG DEHY #2

Operations, Property and/or Equipment Description:

NATCO 125 mmscf/day NATURAL GAS DEHYDRATOR SYSTEM : TWO ABSORBER TOWERS & REGENERATOR STILL W/ BOILER.TEG DEHY #2 (1.0 MMBtu/hr reboiler (BLR4), and 1.33 MMBtu/hr flare (FLLP2).

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-6343)	Sulfur dioxide (SO ₂) emissions shall not exceed 0.13 lb/hr and 0.007 ton/yr Volatile organic compound (VOC) emissions shall not exceed 0.77 lb/hr and 3.37 tons/yr. Nitrogen oxides (NO _x) emissions shall not exceed 0.19 lb/hr and 0.83 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.57 lb/hr and 2.50 tons/yr Particulate (PE) emissions shall not exceed 0.004 lb/hr and 0.018 ton/yr
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC 3745-17-10(B)(1)	Particulate (PE) emissions from the boiler stach shall not exceed 0.020 lb/mmBtu actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).



(2) Additional Terms and Conditions

- a. The emissions unit shall be equipped with a flare to control organic compound emissions. The flare shall be fired with natural gas.
- b. The flare shall be designed and operated in a manner that will ensure no visible emissions, as determined by 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- c. The flare shall be operated at all times when emissions may be vented to it as determined by methods specified in 40 CFR 60.18(f).
- d. The flare shall be used only when the net heating value of the gas being combusted is 200 Btu/scf or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f).
- e. The flare shall be designed for and operated with an exit velocity that satisfies the requirements of 40 CFR 60.18(f).

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
[Authority for term: OAC rule 3745 77 07(A)(1), and PTI 01-6343]

d) Monitoring and/or Recordkeeping Requirements

- (1) The flare shall be monitored for the presence of a pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame.
[Authority for term: OAC rule 3745 77 07(C)(1), and PTI 01-6343]
- (2) The permittee shall record the following information each month:
 - a. All periods during which there was no pilot flame; and
 - b. The operating times for the flare, monitoring equipment, and the associated emissions unit.[Authority for term: OAC rule 3745 77 07(C)(1), and PTI 01-6343]
- (3) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and the quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745 77 07(A)(1), and PTI 01-6343]



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745 77 07(C)(1), and PTI 01-6343]

- (2) The permittee shall report the use of any material other than glycol in this emissions unit within 30 days after the occurrence.

[Authority for term: OAC rule 3745 77 07(C)(1), and PTI 01-6343]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1) OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

b. Emission Limitation:

NOx emissions shall not exceed 0.19 lb/hr and 0.83 ton/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.068 lb NOx/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by the 1.33 MMBtu/hr NAO flare plus the product of an emission factor of 0.098 lb NOx/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 1.0 MMBtu/hr NAO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the



hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

c. Emission Limitation:

CO emissions shall not exceed 0.57 lb/hr and 2.50 tons/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.37 lb CO/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by 1.33 MMBtu/hr NAO flare plus the product of an emission factor of 0.0824 lb CO/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 1.0 MMBtu/hr NAO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

d. Emission Limitation:

VOC emissions shall not exceed 0.77 lb/hr and 3.37 tons/yr.

Applicable Compliance Method:

The hourly emission rate was derived using the Gas Research Institute simulation program, GLYCalc version 3, based on wet gas analyses of the gases assuming a dehydrator gas feed rate of 125 MMscf/day multiplied by 0.02 representing 98% flare destruction efficiency (0.74 lb VOC/hr controlled emissions) plus the product of an emission factor of 0.014 lb VOC/MMBtu (AP-42 Tbl 13.5-1, 1/95; 10% of THC assumed to be VOC) multiplied by 1.33 MMBtu/hr NAO flare burner rate plus the product of an emission factor of 0.005 lb VOC/MMBtu (AP-42 Tbl 1.4-2, 7-98) multiplied by 1.0 MMBtu/hr NAO reboiler burner.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-6343]



e. Emission Limitation:

The flare shall be designed and operated in a manner that will ensure no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22 and the procedures specified in 40 CFR Part 60.18(f). No visible emission observations are specifically required to demonstrate compliance with these emission limitations but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

[Authority for term: OAC rule 3745-15-04(A), OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

f. Emission Limitation:

PE emissions shall not exceed 0.004 lb/hr, 0.018 ton/yr and 0.020 lb/MMBtu actual heat input.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by the 1.33 MMBtu/hr NAO flare plus the product of an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by 1.0 MMBtu/hr NAO reboiler burner.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

g. Emission Limitation:

SO₂ emissions shall not exceed 0.13 lb/hr and 0.0073 ton/yr.



Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.057 lb SO₂/MMBtu (20 gr S/100scf) multiplied the 1.33 MMBtu/hr NAO flare plus the product of an emission factor of 0.057 lb/MMBtu (20 g S/100 scf) multiplied by 1.0 MMBtu/hr NAO reboiler burner.

The annual limitation was established based on an average annual sulfur concentration of 0.25 grains S per 100 cubic feet of natural gas. Therefore, compliance with the annual emission limitation shall be determined based on the emission factor of 0.000714 lb SO₂/MMBtu for the flare and reboiler. The annual limitation was established by multiplying this annual average hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6C.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6343]

g) Miscellaneous Requirements

- (1) None.



9. B027, Recip Engine/Air Compr #099A1

Operations, Property and/or Equipment Description:

4SRB Waukesha F817G Recip Engine COMPR #099A1 118 Brake HP, Product Rating 107 HP. ACP

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-6402)	Nitrogen oxides (NO _x) emissions shall not exceed 2.76 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 4.64 lbs/hr. Volatile organic compound (VOC) emissions shall not exceed 0.04 lb/hr. Sulfur dioxide emissions (SO ₂) shall not exceed 0.07 lb/hr. Particulate emissions (PE) shall not exceed 0.024 lb/hr.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
c.	OAC rule 3745-17-11(B)(5)(a)	Particulate emissions (PE) from the engines exhaust stack shall not exceed 0.310 lb/MMBtu of actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-06(A).



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	40 CFR Part 63 Subpart ZZZZ (40 CFR 63.6580 to 63.6675) In accordance with 40 CFR 63.6585, this emissions unit is a stationary reciprocating internal combustion engine (RICE) subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.	The existing, natural gas, stationary 4SRB spark ignition (SI) RICE, located at a major source for hazardous air pollutants (HAPs), shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ no later than October 19, 2013.
f.	40 CFR 63.6602 Table 2c #11 to Subpart ZZZZ	Following the compliance date of 10/19/13, emissions of formaldehyde shall not exceed 10.3 ppmvd at 15% O ₂ .

(2) Additional Terms and Conditions

- a. Following the compliance date of the NESHAP, the permittee shall limit the concentration of formaldehyde from the stationary RICE exhaust to 10.3 ppmvd or less at 15% O₂ at the outlet of the control device or from the exhaust stack of the engine.
- b. The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6595(a)(1)	The compliance date for Part 63 Subpart ZZZZ for existing SI RICE is 10/19/13.
Applicable Tables from Part 63, Subpart ZZZZ	Following the compliance date, comply with: emission limit in Table 2c #11; performance test methods in Table 4 #3; initial compliance demonstration in Table 5 #13; reporting requirements/frequency in Table 7; general provision from Subpart A in Table 8.
40 CFR 63.6602	Following the compliance date, maintain compliance with the emission limitation in Table 2c #11 (limit formaldehyde to 10.3 ppmvd at 15% O ₂) to Part 63 Subpart ZZZZ.
40 CFR 63.6602; 40 CFR 63.6612; and 40 CFR 63.6620	Conduct an initial performance test within 180 days following the compliance date or by 4/19/14, to demonstrate compliance with the formaldehyde emission standard and in accordance with the requirements specified in Tables 4 and 5 to the subpart.
40 CFR 63.6665	Meet all of the general provisions of Subpart A, from Sections 63.1 through 63.15, that apply to the SI RICE, as identified in Table 8 to Subpart ZZZZ.



c) Operational Restrictions

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6605	General duty to minimize emissions, with good air pollution control practices for minimizing emissions; and compliance required at all times.
40 CFR 63.6625(h)	Minimize idle and startup time, not to exceed 30 minutes.

[Authority for term: 3745-77-07(A)(1), 40 CFR Part 63, Subpart ZZZZ, PTI 01-6402].

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6635	Except for monitor malfunctions, associated repairs, and required quality assurance activities, must continuously monitor that the RICE is operating. Must use all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) in calculations used to report emissions or operating levels.
40 CFR 63.6655(a)	Keep records of: 1. each notification and report submitted to comply with Subpart ZZZZ; 2. the occurrence and duration of each malfunction of the RICE and any control or monitoring equipment; 3. corrective actions taken during each period of malfunction to minimize emissions and restore normal operations; 4. records of performance tests; and 5. all required maintenance performed on air pollution control and monitoring equipment.
40 CFR 63.6625(h)	Maintain a record of each idle and/or startup time that exceeded 30 minutes.
40 CFR 63.6660	Records readily available and retained for at least 5 years after the date of occurrence or date of report according to 63.10(b)(1).

[Authority for term: 3745-77-07(A)(3)(a)(ii), 40 CFR Part 63, Subpart ZZZZ, PTI 01-6402]

e) Reporting Requirements

- (1) A comprehensive written report on the results of the performance tests, conducted to demonstrate compliance with 40 CFR 63.6602, shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or



local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for Term: OAC rule 3745-77-07(A)(3)(a)(ii), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-6402]

- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6640(b)	Submit a report of each instance in which the emission limitation in Table 2c was not met; these deviations to be reported according to the requirements of 63.6650.
40 CFR 63.6640(e)	Submit a report of each instance in which the applicable requirements in Table 8 to Subpart ZZZZ, the general provisions from Subpart A, were not met.
40 CFR 63.6645(a)(1)	Submit all notifications required per 63.7(b) and (c); 63.8(e), (f)(4), and (f)(6); and 63.9(b) through (e), (g), and (h) that apply to the SI RICE.
40 CFR 63.6645(g)	Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin, as required by 63.7(b)(1).
40 CFR 63.6645(h); 40 CFR 63.6630(c); and OAC rule 3745-15-04(A)	Submit a Notification of Compliance Status for each initial compliance demonstration required in Table 5 to Subpart ZZZZ, including the performance test results, before the close of business on the 60 th day following the completion of the test; or within 30 days of the initial compliance demonstration if the demonstration does not include a performance test. OAC rule 3745-15-04(A) requires performance test results to be submitted within 30 days of the test date unless additional time is requested.
40 CFR 63.6650(a)	Submit each applicable report in Table 7 of Subpart ZZZZ.
40 CFR 63.6650(b)(1) to (5) and Part 63 Subpart ZZZZ Table 7 #1	Following the initial compliance date, submit Semiannual Compliance Reports to include the information identified in 63.6650(c) through (f), as applicable to the SI RICE. Following the initial compliance report, each subsequent report shall cover the reporting period from January 1 st through June 30 th and July 1 st through December 31 st . The Semiannual Compliance Reports must be postmarked or delivered no later than July 31 st and January 31 st .
40 CFR 63.6650(c)	63.6650(c) contains the required information to be submitted in each compliance report.
40 CFR 63.6650(d)	63.6650(d) contains the required information to be submitted for each deviation from an emission or operating limitation not monitored by a continuous monitoring system (CMS).

[Authority for Term: OAC rule 3745-15-04(A), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-6402]



f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1), 40 CFR Part 63, Subpart ZZZZ, PTI 01-6402]

a. Emission Limitation:

PE shall not exceed 0.310 lb PE/MMBtu of actual heat input.

Applicable Compliance Method:

Compliance may be based upon an emission factor of 0.0095 lb PM10/MMBtu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-3 (7/00).

If required, the permittee shall demonstrate compliance with the emission limitations in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1), and PTI 01-6402]

b. Emission Limitation:

NOx emissions shall not exceed 2.76 lbs/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 2.21 lb NOx/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 118 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.



If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6402]

c. Emission Limitation:

CO emissions shall not exceed 4.64 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 3.72 lb CO/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 118 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6402]

d. Emission Limitation:

VOC emissions shall not exceed 0.04 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 0.03 lb VOC/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 118 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6402]

e. Emission Limitation:

SO₂ emissions shall not exceed 0.07 lbs/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 0.057 lb SO₂/MMBtu (20 grains S per 100 cubic foot natural gas) multiplied times 118 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.



If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6, or 6c.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6402]

f. Emission Limitation:

PE emissions shall not exceed 0.024 lb/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation may be derived from an emission factor of 0.019 lb PE/MMBtu (AP-42, table 3.2-3, 7/00) multiplied times 118 brake horsepower multiplied by 0.0106 MMBtu/hp-hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6402]

h. Emission Limitations:

10.3 ppmvd formaldehyde at 15% O₂

Applicable Compliance Method:

Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date or no later than 4/19/14, to demonstrate compliance with the formaldehyde limitation in the NESHAP. The appropriate tests methods from Table 4 to Subpart ZZZZ shall be conducted.

The performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.

The following test methods shall be employed to demonstrate compliance with the emission limitation for formaldehyde:

- i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points
- ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00: to measure O₂ at the inlet and outlet of the control device if



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demonstrating compliance through the percent control of CO or to determine the O₂ concentration of the stationary RICE exhaust to normalize the CO concentration.

- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary RICE exhaust.
- iv. Method 320 or Method 323 of 40 CFR Part 63,, Appendix A; or ASTM D 6348-03 to measure formaldehyde at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure formaldehyde at the exhaust of the stationary RICE.
- v. The following equation shall be used to normalize the formaldehyde concentrations to a dry basis and to 15 percent oxygen (O₂)**:

$$C_{adj} = C_d (5.9 / 20.9 - \% O_2)$$

Where:

C_{adj}= calculated formaldehyde concentration adjusted to 15 percent O₂.

C_d= measured concentration of formaldehyde, uncorrected.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

%O₂ = measured O₂ concentration, dry basis, percent.

** Optionally, the pollutant concentrations can be corrected to 15% O₂ using a CO₂ correction factor, by calculating the fuel factor (F_o value) using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

The permittee shall notify Ohio EPA Central District Office Division of Air Pollution Control in writing of the scheduled performance test date at least 60 calendar days before it is scheduled, to allow the agency time to review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Ohio EPA Central District Office Division of Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

[Authority for Terms: OAC rule 3745-77-07(C)(1), 40 CFR Part 63, Subpart ZZZZ, and PTI 01-6402]



Draft Title V Permit
CRAWFORD COMPRESSOR STATION
Permit Number: P0109255
Facility ID: 0123000137

Effective Date: To be entered upon final issuance

g) Miscellaneous Requirements

(1) None.



10. B032, TEG DEHY #3

Operations, Property and/or Equipment Description:

Gas Conditioners Inc. 13 mmscf/day NATURAL GAS DEHYDRATOR SYSTEM : TWO ABSORBER TOWERS & REGENERATOR STILL W/ BOILER.TEG DEHY #3

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-6835)	Nitrogen oxides (NO _x) emissions shall not exceed 0.09 lb/hr. Carbon monoxide (CO) emissions shall not exceed 0.27 lb/hr. Volatile organic compound (VOC) emissions shall not exceed 0.09 lb/hr. Particulate (PM) emissions shall not exceed 0.002 lb/hr. Sulfur dioxide (SO ₂) emissions shall not exceed 0.064 lb/hr.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-10(B)(1)	Particulate (PE) emissions from the boiler stack shall not exceed 0.020 lb/mmBtu actual heat input.
d.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).



(2) Additional Terms and Conditions

- a. The emissions unit shall be equipped with a flare to control organic compound emissions. The flare shall be fired with natural gas.
- b. The flare shall be designed and operated in a manner that will ensure no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, as determined by Method 22 referenced in 40 CFR 60.18 (f).
- c. The flare shall be operated at all times when emissions may be vented to it as determined by methods specified in 40 CFR 60.18(f).
- d. The flare shall be used only when the net heating value of the gas being combusted is 200 Btu/scf or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f).
- e. The flare shall be designed with an exit velocity that satisfies the requirements of 40 CFR 60.18(f).

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745 77 07(A)(1), and PTI 01-6835]

d) Monitoring and/or Recordkeeping Requirements

- (1) The flare shall be monitored for the presence of a pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-6835]

- (2) The permittee shall record the following information each month:

- a. All periods during which there was no pilot flame; and
- b. The operating times for the flare, monitoring equipment, and the associated emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-6835]

- (3) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and the quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-6835]



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for Term: OAC rule 3745-7-07(C)(1), and PTI 01-6835]

- (2) The permittee shall report the use of any material other than glycol in this emissions unit within 30 days after the occurrence.

[Authority for Term: OAC rule 3745-77-07(C)(1), and PTI 01-6835]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]

b. Emission Limitation:

NOx emissions shall not exceed 0.09 lb/hr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.068 lb NOx/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by the 0.623 MMBtu/hr NAO flare plus the product of an emission factor of 0.098 lb NOx/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 0.5 MMBtu/hr NAO reboiler burner.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]



c. Emission Limitation:

CO emissions shall not exceed 0.27 lb/hr.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.37 lb CO/MMBtu (AP-42, Tbl 13.5-1, 1/95) multiplied by 0.623 MMBtu/hr NAO flare plus the product of an emission factor of 0.0824 lb CO/MMBtu (AP-42, Tbl 1.4-1, 7/98) multiplied by 0.5 MMBtu/hr NAO reboiler burner.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]

d. Emission Limitation:

VOC emissions shall not exceed 0.09 lb/hr.

Applicable Compliance Method:

The hourly emission rate was derived using the Gas Research Institute simulation program, GLYCalc version 3, based on wet gas analyses of the gases assuming a dehydrator gas feed rate of 13 MMscf/day multiplied by 0.02 representing 98% flare destruction efficiency (0.08 lb VOC/hr controlled emissions) plus the product of an emission factor of 0.014 lb VOC/MMBtu (AP-42 Tbl 13.5-1, 1/95; 10% of THC assumed to be VOC) multiplied by 0.623 MMBtu/hr NAO flare burner rate plus the product of an emission factor of 0.005 lb VOC/MMBtu (AP-42 Tbl 1.4-2, 7-98) multiplied by 0.5 MMBtu/hr NAO reboiler burner.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-6835]

e. Emission Limitations:

The flare shall be designed and operated in a manner that will ensure no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22 and the procedures specified in 40 CFR Part 60.18(f). No visible emission observations



are specifically required to demonstrate compliance with these emission limitations but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]

f. Emission Limitation:

Particulate emissions (PE) shall not exceed 0.002 lb/hr and 0.020 lb/MMBtu actual heat input.

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rates using an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by the 0.623 MMBtu/hr NAO flare plus the product of an emission factor of 0.00186 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98; filterable component only) multiplied by 0.5 MMBtu/hr NAO reboiler burner.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]

g. Emission Limitation:

SO2 emissions shall not exceed 0.064 lb/hr

Applicable Compliance Method:

The hourly emission rate was derived using the maximum hourly waste gas and natural gas combustion rate using an emission factor of 0.057 lb SO2/MMBtu (20 gr S/100scf) multiplied the 0.623 MMBtu/hr NAO flare plus the product of an emission factor of 0.057 lb/MMBtu (20 g S/100 scf) multiplied by 0.5 MMBtu/hr NAO reboiler burner. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6C.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-6835]

g) Miscellaneous Requirements

- (1) None.



11. B034, Recip Engine/Generator #099G2

Operations, Property and/or Equipment Description:

4SRB Waukesha H2475 Recip Engine, 347 Brake HP, 315 HP.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
b.	OAC rule 3745-17-11(B)(5)(a)	Particulate emissions (PE) from the engines exhaust stack shall not exceed 0.310 lb/MMBtu of actual heat input from ICE less than or equal to 600 horsepower (HP).
c.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
d.	40 CFR Part 63 Subpart ZZZZ (40 CFR 63.6580 to 63.6675) In accordance with 40 CFR 63.6585, this emissions unit is a stationary reciprocating internal combustion engine (RICE) subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.	The existing, natural gas, stationary 4SRB spark ignition (SI) RICE, located at a major source for hazardous air pollutants (HAPs), shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ no later than October 19, 2013.



Effective Date: To be entered upon final issuance

e.	40 CFR 63.6602 Table 2c #11 to Subpart ZZZZ	Following the compliance date of 10/19/13, emissions of formaldehyde shall not exceed 10.3 ppmvd at 15% O ₂ .
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(2) Additional Terms and Conditions

- a. Following the compliance date of the NESHAP, the permittee shall limit the concentration of formaldehyde from the stationary RICE exhaust to 10.3 ppmvd or less at 15% O₂ at the outlet of the control device or from the exhaust stack of the engine.
- b. The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6595(a)(1)	The compliance date for Part 63 Subpart ZZZZ for existing SI RICE is 10/19/13.
Applicable Tables from Part 63, Subpart ZZZZ	Following the compliance date, comply with: emission limit in Table 2c #11; performance test methods in Table 4 #3; initial compliance demonstration in Table 5 #13; reporting requirements/frequency in Table 7; general provision from Subpart A in Table 8.
40 CFR 63.6602	Following the compliance date, maintain compliance with the emission limitation in Table 2c #11 (limit formaldehyde to 10.3 ppmvd at 15% O ₂) to Part 63 Subpart ZZZZ.
40 CFR 63.6602; 40 CFR 63.6612; and 40 CFR 63.6620	Conduct an initial performance test within 180 days following the compliance date or by 4/19/14, to demonstrate compliance with the formaldehyde emission standard and in accordance with the requirements specified in Tables 4 and 5 to the subpart.
40 CFR 63.6665	Meet all of the general provisions of Subpart A, from Sections 63.1 through 63.15, that apply to the SI RICE, as identified in Table 8 to Subpart ZZZZ.

c) Operational Restrictions

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6605	General duty to minimize emissions, with good air pollution control practices for minimizing emissions; and compliance required at all times.



40 CFR 63.6625(h)	Minimize idle and startup time, not to exceed 30 minutes.
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[Authority for term: OAC rule 3745-77-07(A)(1), and 40 CFR Part 63, Subpart ZZZZ]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6635	Except for monitor malfunctions, associated repairs, and required quality assurance activities, must continuously monitor that the RICE is operating. Must use all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) in calculations used to report emissions or operating levels.
40 CFR 63.6655(a)	Keep records of: 1. each notification and report submitted to comply with Subpart ZZZZ; 2. the occurrence and duration of each malfunction of the RICE and any control or monitoring equipment; 3. corrective actions taken during each period of malfunction to minimize emissions and restore normal operations; 4. records of performance tests; and 5. all required maintenance performed on air pollution control and monitoring equipment.
40 CFR 63.6625(h)	Maintain a record of each idle and/or startup time that exceeded 30 minutes.
40 CFR 63.6660	Records readily available and retained for at least 5 years after the date of occurrence or date of report according to 63.10(b)(1).

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]

e) Reporting Requirements

- (1) A comprehensive written report on the results of the performance tests, conducted to demonstrate compliance with 40 CFR 63.6602, shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]

- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:



Effective Date: To be entered upon final issuance

Applicable Rule	Requirement
40 CFR 63.6640(b)	Submit a report of each instance in which the emission limitation in Table 2c was not met; these deviations to be reported according to the requirements of 63.6650.
40 CFR 63.6640(e)	Submit a report of each instance in which the applicable requirements in Table 8 to Subpart ZZZZ, the general provisions from Subpart A, were not met.
40 CFR 63.6645(a)(1)	Submit all notifications required per 63.7(b) and (c); 63.8(e), (f)(4), and (f)(6); and 63.9(b) through (e), (g), and (h) that apply to the SI RICE.
40 CFR 63.6645(g)	Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin, as required by 63.7(b)(1).
40 CFR 63.6645(h); 40 CFR 63.6630(c); and OAC rule 3745-15-04(A)	Submit a Notification of Compliance Status for each initial compliance demonstration required in Table 5 to Subpart ZZZZ, including the performance test results, before the close of business on the 60 th day following the completion of the test; or within 30 days of the initial compliance demonstration if the demonstration does not include a performance test. OAC rule 3745-15-04(A) requires performance test results to be submitted within 30 days of the test date unless additional time is requested.
40 CFR 63.6650(a)	Submit each applicable report in Table 7 of Subpart ZZZZ.
40 CFR 63.6650(b)(1) to (5) and Part 63 Subpart ZZZZ Table 7 #1	Following the initial compliance date, submit Semiannual Compliance Reports to include the information identified in 63.6650(c) through (f), as applicable to the SI RICE. Following the initial compliance report, each subsequent report shall cover the reporting period from January 1st through June 30th and July 1st through December 31st. The Semiannual Compliance Reports must be postmarked or delivered no later than July 31st and January 31st.
40 CFR 63.6675 and Subpart ZZZZ Table 7 #1.a.ii	Definition of "limited use stationary RICE". Include in each Annual Compliance Report any exceedance of 100 hours of operation during the year.
40 CFR 63.6650(c)	63.6650(c) contains the required information to be submitted in each compliance report.
40 CFR 63.6650(d)	63.6650(d) contains the required information to be submitted for each deviation from an emission or operating limitation not monitored by a continuous monitoring system (CMS).

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and 40 CFR Part 60, Appendix A]

b. Emission Limitation:

PE emission from the engine exhaust stack shall not exceed 0.310 lb/hr.

Applicable Compliance Method:

Compliance may be based upon an emission factor of 0.0095 lb PM10/MMBtu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-3 (7/00).

If required, the permittee shall demonstrate compliance with the emission limitations in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10), OAC rule 3745-77-07(C)(1)]

c. Emission Limitations:

10.3 ppmvd formaldehyde at 15% O₂

Applicable Compliance Method:

Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date or no later than 4/19/14, to demonstrate compliance with the formaldehyde limitation in the NESHAP. The appropriate tests methods from Table 4 to Subpart ZZZZ shall be conducted.

The performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.



The following test methods shall be employed to demonstrate compliance with the emission limitation for formaldehyde:

- i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points
- ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00: to measure O₂ at the inlet and outlet of the control device if demonstrating compliance through the percent control of CO or to determine the O₂ concentration of the stationary RICE exhaust to normalize the CO concentration.
- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary RICE exhaust.
- iv. Method 320 or Method 323 of 40 CFR Part 63,, Appendix A; or ASTM D 6348-03 to measure formaldehyde at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure formaldehyde at the exhaust of the stationary RICE.
- v. The following equation shall be used to normalize the formaldehyde concentrations to a dry basis and to 15 percent oxygen (O₂)**:

$$C_{adj} = C_d (5.9 / 20.9 - \% O_2)$$

Where:

C_{adj}= calculated formaldehyde concentration adjusted to 15 percent O₂.

C_d= measured concentration of formaldehyde, uncorrected.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

%O₂ = measured O₂ concentration, dry basis, percent.

** Optionally, the pollutant concentrations can be corrected to 15% O₂ using a CO₂ correction factor, by calculating the fuel factor (F_o value) using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

The permittee shall notify Ohio EPA Central District Office Division of Air Pollution Control in writing of the scheduled performance test date at least 60 calendar days before it is scheduled, to allow the agency time to review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Ohio EPA Central District Office Division of Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the



emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

[OAC rule 3745-77-07(C)(1), and 40 CFR Part 60, Appendix A]

g) Miscellaneous Requirements

- (1) None.



12. P002, Glycol Reclaimer #2

Operations, Property and/or Equipment Description:

Glycol Reclaimer Unit #2 0.39 mmBtu/hr, Consists of 0.19 MMBtu/hr boiler/preheater and 0.20 MMBtu/hr vacuum reboiler.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-08232)	Carbon monoxide (CO) emissions shall not exceed 0.032 lb/hr and 0.14 TPY. Nitrogen oxides (NO _x) emissions shall not exceed 0.038 lb/hr and 0.17 TPY. Sulfur dioxide (SO ₂) emissions shall not exceed 0.022 lb/hr and 0.001 TPY. Particulate emissions (PE) shall not exceed 0.003 lb/hr and 0.013 TPY. Volatile organic compound (VOC) emissions shall not exceed 6.26 lb/hr and 3.51 TPY.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. none.



c) Operational Restrictions

- (1) The maximum annual process rate for this emissions unit shall not exceed 126,500 gallons of triethylene glycol and 28,750 gal of diethylene glycol.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08232]

- (2) The maximum glycol processing rate will not exceed 90 gallons per hour.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08232]

d) Monitoring and/or Recordkeeping Requirements

- (1) For each batch of material processed by emissions unit P002 the permittee shall perform a wet analysis of each batch of material processed for benzene, toluene, ethylbenzene, and xylene (BTEX).

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08232]

- (2) The permittee shall maintain the following daily records for material processed by emissions unit P002:

- (i) Unique identification number and type of glycol (TEG or DEG) for each batch.
- (ii) Results of BTEX analysis for each batch.
- (iii) Number of gallons of glycol processed.
- (iv) Number of operating hours.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08232]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which identify each day during which any of the allowable hourly OC emission rate was exceeded and the actual hourly emissions for each day. Each report shall be submitted to the Central District Office within 30 days of the deviation.

(Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-08232]

- (3) The permittee shall submit annual reports that identify any exceedances of the annual process rate limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-08232]



f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

CO emissions shall not exceed 0.032 lb/hr and 0.14 ton/yr.

Applicable Compliance Method:

Compliance with the allowable mass emission rate for CO shall be determined by the summation of the CO emissions from the boiler/preheater and the vacuum boiler. Compliance with the allowable mass emission rate for carbon monoxide shall be determined by summation of the product of 0.39 MMBtu/hr (combined preheater/vacuum boiler rating) multiplied times an emission factor of 0.08235 lb CO/MMBtu (AP-42 Table 1.4-1 7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 10.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77- 07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08232]

b. Emission Limitations:

NOx emissions shall not exceed 0.038 lb/hr and 0.17 ton/yr.

Applicable Compliance Method:

Compliance with the allowable mass emission rate for NOx shall be determined by the summation of the NOx emissions from the boiler/preheater and the vacuum boiler. Compliance with the allowable mass emission rate for NOx shall be determined by summation of the product of 0.35 MMBtu/hr (combined preheater/vacuum boiler rating) multiplied times an emission factor of 0.09804 lb NOx/MMBtu (AP-42 Table 1.4-1 7/98). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the



hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08232]

c. Emission Limitations:

SO₂ emissions shall not exceed 0.022 lb/hr and 0.0012 ton/year.

Applicable Compliance Method:

Compliance with the allowable mass emission rate for SO₂ shall be determined by the summation of the SO₂ emissions from the boiler/preheater and the vacuum boiler. Hourly emissions from these sources shall be based on a maximum sulfur concentration of 20 grains S per 100 cubic feet of natural gas. Emissions from the boiler/preheater shall be determined by multiplying an emission factor of 0.0571 lb SO₂/MMBtu by the boiler/preheater maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the vacuum boiler shall be determined by multiplying an emission factor of 0.0571 lb SO₂/MMBtu by the vacuum boiler maximum hourly MMBtu rating (0.175 MMBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C.

The annual limitation was established based on an average annual sulfur concentration of 0.25 grains S per 100 cubic feet of natural gas. Therefore, compliance with the annual emission limitation shall be determined based on the emission factor of 0.000714 lb SO₂/MMBtu for the boiler/preheater and the vacuum boiler. The annual limitation was established by multiplying this annual average hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08232]

d. Emission Limitations:

PE shall not exceed 0.003 lb/hr, 0.013 ton/yr, and 0.020 lb/mmBtu actual heat input.

Applicable Compliance Method :

Compliance with the allowable mass emission rate for PM shall be determined by the summation of the PM emissions from the boiler/preheater, and the vacuum boiler. Emissions from the boiler/preheater shall be determined by multiplying an emission factor of 0.007451 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98) by the boiler/preheater maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the vacuum boiler shall be determined by multiplying an emission factor 0.007451 lb PE/MMBtu (AP-42, Tbl 1.4-2, 7/98) by the vacuum boiler maximum hourly MMBtu rating (0.175 MMBtu/hr). If required, the



permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, provided compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08232]

e. Emission Limitations:

VOC emissions shall not exceed 6.26 lb/hr and 3.51 ton/yr.

Applicable Compliance Method—

Compliance with the hourly OC emissions from processing TEG can be determined by the following formula:

$$(1/1,000,000) \times \text{BTEX concentration(ppm)} \times 1.68(\text{OC/BTEX ratio}) \times 9.3 \text{ lbs/gal(glycol density)} \times \text{gal/hr processed} = \text{lbs OC/hr}$$

The 1.68 OC to BTEX ratio was derived from the hourly OC to BTEX emissions for a dehydration unit obtained from the Gas Research Institute simulation program GLYCalc Version 3.0 which was ran using the worst case TEG example of Holmes Compressor Station.

Compliance with the hourly OC emissions from processing DEG can be determined Compliance with the hourly OC emissions from processing DEG can be determined by the following formula:

$$(1/1,000,000) \times \text{BTEX concentration(ppm)} \times 1.35(\text{OC/BTEX ratio}) \times 9.3 \text{ lbs/gal(glycol density)} \times \text{gal/hr processed} = \text{lbs OC/hr}$$

The 1.35 OC to BTEX ratio was derived from the hourly OC to BTEX emissions for a dehydration unit obtained from the Gas Research Institute simulation program GLYCalc Version 3.0 which was ran using the worst case DEG example of Adaline Compressor Station.

Compliance with the allowable hourly emissions limitation will be demonstrated provided that the hourly process rate limitation for both TEG and DEG is complied with and the total BTEX concentrations do not exceed 2,535 ppm and 5,510 ppm for TEG and DEG, respectively. Compliance with the annual emissions limitation will be demonstrated provided that the annual process rate limitation for both TEG and DEG are complied with and the total BTEX concentrations do not exceed 2,535 ppm and 5,510 ppm for TEG and DEG, respectively. Maximum annual VOC emissions shall be calculated using the sum of the annual emissions of TEG and DEG. The annual TEG emissions can be



calculated using the maximum lbs TEG/gallon emission rate of .04 lb TEG/gallon (based upon the maximum BTEX concentration for TEG of 2,535 ppm) times the number of gallons of TEG processed per year. The annual DEG emissions can be calculated using the maximum lbs DEG/gallon emission rate of .069 lb DEG/gallon (based upon the maximum BTEX concentration for DEG of 5,510 ppm) times the number of gallons of DEG processed per year.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08232]

f. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08232]

g. Miscellaneous Requirements

(1) None.



13. P003 Glycol Reclaimer #3

Operations, Property and/or Equipment Description:

Glycol Reclaimer Unit #3 - 0.35 mmBtu/hr with 0.175 MMBtu/hr boiler/preheater, 0.175 MMBtu/hr vacuum reboiler, and 55 HP generator.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 01-08634)	Carbon monoxide (CO) emissions shall not exceed 2.20 lbs/hr and 9.63 TPY. Nitrogen oxides (NO _x) emissions shall not exceed 1.32 lbs/hr and 5.79 TPY. Sulfur dioxide (SO ₂) emissions shall not exceed 0.053 lb/hr and 0.003 TPY. Particulate (PM) emissions shall not exceed 0.014 lb/hr and 0.061 TPY. Volatile organic compound (VOC) emissions shall not exceed 7.77 lbs/hr and 34.03 TPY.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC 3745-17-10(B)(1)	Particulate (PE) emissions from the boiler stack shall not exceed 0.020 lbs/mmBtu actual heat input.



- (2) Additional Terms and Conditions
 - a. The hourly and annual CO, NO_x, SO₂, and PE emissions limits are based on the emissions unit's potential to emit; therefore; record keeping and reporting is not required to demonstrate compliance with these emissions limitations.
- c) Operational Restrictions
 - (1) The maximum annual process rate for this emissions unit shall not exceed 150,000 gallons of Glycol.
[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-08634]
 - (2) The maximum glycol processing rate will not exceed 90 gallons per hour.
[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-08634]
 - (3) The permittee shall only burn natural gas in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1), and PTI 01-08634]
- d) Monitoring and/or Recordkeeping Requirements
 - (1) For each batch of material processed by emissions unit P003 the permittee shall perform a wet analysis of each batch of material processed for benzene, toluene, ethylbenzene, and xylene (BTEX).
[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]
 - (2) The permittee shall maintain the following daily records for material processed by emissions unit P003:
 - (a) Unique identification number and type of glycol (TEG or DEG) for each batch.
 - (b) Results of BTEX analysis for each batch.
 - (c) Number of gallons of glycol processed.
 - (d) Number of operating hours.[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]
 - (4) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which identify each day during which any of the allowable hourly OC emission rate was exceeded and the actual hourly emissions for each day. Each report shall be submitted to the Central District Office within 30 days of the deviation.

[Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-08634]

- (2) The permittee shall submit annual reports that identify any exceedances of the annual process rate limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(A)(3)(c), and PTI 01-08634]

- (3) The permittee shall submit a "Notice of Intent to Relocate a Portable or Mobile Source" form 15 days prior to any planned relocation of this emissions unit, in accordance with OAC rule 3745-31-05(F)(6). (A copy of the form is attached to this permit.) Approval of the planned relocation must be obtained from the Ohio EPA, Central District Office prior to relocation.

[Authority for term: OAC rule 3745-31-05(F)(6), OAC rule 3745-77-07(A)(3)(c), and PTI 01-08634]

- (4) The permittee shall submit deviation (excursion) reports which identify each day during the allowable hourly process weight rate was exceeded and the actual hourly process weight rate for each such day. Each report shall be submitted to the Central District Office within 30 days of the deviation.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]

- (5) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

CO emissions shall not exceed 2.20 lbs/hr and 9.63 tons/yr.



Applicable Compliance Method-

Compliance with the allowable mass emission rate for CO shall be determined by the summation of the CO emissions from the boiler/preheater, vacuum boiler and generator. Compliance with the allowable mass emission rate for carbon monoxide shall be determined by summation of the product of 0.35 MMBtu/hr (combined preheater/vacuum boiler rating) multiplied times an emission factor of 0.08235 lb CO/MMBtu (AP-42 Table 1.4-1 7/98) plus the product of 55 brake horsepower multiplied times 0.0106 MMBtu/hp-hr multiplied by an emission factor of 3.72 lbs CO/MMBtu (AP-42, Tbl 3.2-3, 7/00). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 10.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the hourly emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08634]

b. Emission Limitations:

NOx emissions shall not exceed 1.32 lbs/hr and 5.79 tons/yr.

Applicable Compliance Method-

Compliance with the allowable mass emission rate for NOx shall be determined by the summation of the NOx emissions from the boiler/preheater, vacuum boiler and generator. Compliance with the allowable mass emission rate for NOx shall be determined by summation of the product of 0.35 MMBtu/hr (combined preheater/vacuum boiler rating) multiplied times an emission factor of 0.09804 lb NOx/MMBtu (AP-42 Table 1.4-1 7/98) plus the product of 55 brake horsepower multiplied times 0.0106 MMBtu/hp-hr multiplied by an emission factor of 2.21 lbs NOx/MMBtu (AP-42, Table 3.2-3 (7/00)). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the hourly emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08634]



c. Emission Limitations:

SO₂ emissions shall not exceed 0.05 lb/hr and 0.0029 ton/yr.

Applicable Compliance Method:

Compliance with the allowable mass emission rate for SO₂ shall be determined by the summation of the SO₂ emissions from the boiler/preheater, vacuum boiler and generator. Hourly emissions from these sources shall be based on a maximum sulfur concentration of 20 grains S per 100 cubic feet of natural gas. Emissions from the boiler/preheater shall be determined by multiplying an emission factor of 0.0571 lb SO₂/MMBtu by the boiler/preheater maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the vacuum boiler shall be determined by multiplying an emission factor of 0.0571 lb SO₂/MMBtu by the vacuum boiler maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the generator shall be determined by multiplying an emission factor of 0.0571 lb SO₂/MMBtu by the generator maximum horsepower rating (55 brake horsepower) and the brake specific fuel consumption (0.0106 MMBtu/hp-hr). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C.

The annual limitation was established based on an average annual sulfur concentration of 0.25 grains S per 100 cubic feet of natural gas. Therefore, compliance with the annual emission limitation shall be determined based on the emission factor of 0.000714 lb SO₂/MMBtu for the boiler/preheater, vacuum boiler, and generator. The annual limitation was established by multiplying this annual average hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08634]

d. Emission Limitations:

PM shall not exceed 0.014 lb/hr, 0.061 ton/yr, and 0.020 lb/mmBtu actual heat input.

Applicable Compliance Method-

Compliance with the allowable mass emission rate for PM shall be determined by the summation of the PM emissions from the boiler/preheater, vacuum boiler and generator. Emissions from the boiler/preheater shall be determined by multiplying an emission factor of 0.007451 lb PM/MMBtu (AP-42, Tbl 1.4-2, 7/98) by the boiler/preheater maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the vacuum boiler shall be determined by multiplying an emission factor 0.007451 lb PM/MMBtu (AP-42, Tbl 1.4-2, 7/98) by the vacuum boiler maximum hourly MMBtu rating (0.175 MMBtu/hr). Emissions from the generator shall be determined by multiplying an emission factor of 0.01941 lb PM/MMBtu (AP-42, Tbl 3.2-3, 7/00) by the generator maximum horsepower rating (55 brake horsepower) and the brake specific fuel consumption (0.0106 MMBtu/hp-hr). If



required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

The annual limitation was established by multiplying the hourly emission limitation by the maximum possible annual operating hours (8760 hrs/yr) and dividing by 2000 lbs/ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the hourly emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08634]

e. Emission Limitations:

VOC emissions shall not exceed 7.77 lbs/hr and 34.03 tons/yr.

Applicable Compliance Method-

Compliance with the allowable mass emission rate for VOC shall be determined by the summation of the VOC emissions from the boiler/preheater, vacuum boiler, generator, and TEG processing. The hourly emission rate shall be determined using the maximum hourly natural gas combustion rates using an emission factor of 0.005 lb VOC/MMBtu (AP-42, Tbl 1.4-2, 7/98) multiplied by 0.35 MMBtu/hr (0.175 MMBtu/hr boiler/preheater plus 0.175 MMBtu/hr vacuum boiler) plus an emission factor of 0.0296 lbs VOC/MMBtu (AP-42, Tbl 3.2-3, 7/00) multiplied by 55 HP multiplied by 0.0106 MMBtu/hp-hr (55 HP generator) plus the maximum emissions from processing TEG based on 5,512 ppm BTEX, 90 gal/hr, and the following formula:

$$(1/1,000,000) \times \text{BTEX concentration(ppm)} \times 1.68(\text{OC/BTEX ratio}) \times 9.3 \text{ lbs/gal(glycol density)} \times \text{gal/hr processed} = \text{lbs OC/hr}$$

The 1.68 OC to BTEX ratio was derived from the hourly OC to BTEX emissions for a dehydration unit obtained from the Gas Research Institute simulation program GLYCalc Version 3.0 which was ran using the worst case TEG example of Holmes Compressor Station.

Compliance with the allowable hourly emissions limitation will be demonstrated provided that the hourly process rate limitation for TEG is complied with and the total BTEX concentrations do not exceed 5,512 ppm TEG.

Compliance with the annual emissions limitation will be demonstrated provided that the annual process rate limitation for TEG is complied with and the total BTEX concentrations do not exceed 5,512 ppm TEG. The annual TEG missions can be calculated using the maximum lbs TEG/gallon emission rate of 0.086 lb TEG/gallon (based upon the maximum BTEX concentration for TEG of 5,512 ppm) times the number of gallons of TEG processed per year.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]



f. Emissions Limitations-

Particulate emissions shall not exceed 0.061 ton/yr, NO_x emissions shall not exceed 5.79 tons/yr, CO emissions shall not exceed 9.63 tons/yr and SO₂ emissions shall not exceed 0.0029 ton/yr.

Applicable Compliance Method-

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (the annual limitations were calculated by multiplying the hourly limitation by 8760, and then dividing by 2000; SO₂ annual limitation is based on 0.25 grains sulfur per 100 cubic foot of natural gas).

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 01-08634]

g. Emission Limitation-

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method-

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), 40 CFR Part 60, Appendix A, and PTI 01-08634]

g. Miscellaneous Requirements

1. None.



14. Emissions Unit Group -2SLB Prime Mover Engines: B011, B012, B015, B016, B017, B021, B022.

EU ID	Operations, Property and/or Equipment Description
B011	2SLB Cooper-Bessemer GMWA-6, Recip Engine COMPR #09904 1650 Brake HP, Product Rating 1,500HP
B012	2SLB Cooper-Bessemer 8W-330C, Recip Engine COMPR #09905 1,650 Brake HP, Product Rating 1500HP
B015	2SLB Cooper-Bessemer GMWA-6, Recip Engine COMPR #09906 1,650 Brake HP, Product Rating 1500 HP
B016	2SLB Cooper-Bessemer GMWA-6, Recip Engine COMPR #09907. 1,650 Brake HP, Product Rating 1500 HP
B017	2SLB Cooper-Bessemer GMWA-6, Recip Engine COMPR #09908 1,650 Brake HP, Product Rating 1500 HP
B021	2SLB Worthington ML-10 Recip Engine COMPR #09911 3,080 Brake HP, Product Rating 2,800 HP.
B022	2SLB Worthington ML-10 Recip Engine COMPR #09909 3,080 Brake HP, Product Rating 2,800 HP.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions (PE) for emission units (B011), (B012), (B015), (B016), (B017), (B021), and (B022) shall not exceed: 0.062 lb./MMBtu of actual heat input.
c.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-18-06(A).
d.	40 CFR Part 63, Subpart ZZZZ	See b)(2)a.



(2) Additional Terms and Conditions

- a. This emission unit is an existing spark ignition 2-stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. Therefore, the unit does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 63, Subpart A, including the initial notification requirements specified in 40 CFR 63.6645(d). The facility is identified as a major source for HAPs.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rule 3745-17-03(B)(1), OAC rule 3745-77-07(C)(1), and 40 CFR Part 60, Appendix A]



b. Emission Limitation:

For emissions units (B011), (B012), (B015), (B016), (B017), (B021), and (B022), PE shall not exceed: 0.062 lb./MMBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.0384 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled particulate emissions from a 2-stroke, lean-burn, natural gas-fired reciprocating engine.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



15. Emissions Unit Group -4SRB Prime Mover Engines: B018,B019,B020,

EU ID	Operations, Property and/or Equipment Description
B018	4SRB Waukesha H2475G Recip Engine COMPR #09901 306 Brake HP, Product Rating 278 HP
B019	4SRB Waukesha H2475G Recip Engine COMPR #09902. 306 Brake HP, Product Rating 278 HP
B020	4SRB Waukesha H2475G Recip Engine COMPR #09903. 306 Brake HP, Product Rating 278 HP

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
b.	OAC rule 3745-17-11(B)(5)(a)	Particulate emissions (PE) from the engines exhaust stack for emissions units (B018), (B019), and (B020) shall not exceed 0.310 lb/MMBtu of actual heat input.
c.	OAC rule 3745-18-06(G)	This emissions unit is exempt from this requirement pursuant to OAC rule 3745-06(A).
d.	40 CFR Part 63 Subpart ZZZZ (40 CFR 63.6580 to 63.6675) In accordance with 40 CFR 63.6585, this emissions unit is a stationary reciprocating internal combustion engine (RICE) subject to the National Emissions Standards for	The existing, natural gas, stationary 4SRB spark ignition (SI) RICE, located at a major source for hazardous air pollutants (HAPs), shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ no later than October 19, 2013.



Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.	
e.	40 CFR 63.6602 Table 2c #11 to Subpart ZZZZ	Following the compliance date of 10/19/13, emissions of formaldehyde shall not exceed 10.3 ppmvd at 15% O ₂ .

(2) Additional Terms and Conditions

- a. Following the compliance date of the NESHAP, the permittee shall limit the concentration of formaldehyde from the stationary RICE exhaust to 10.3 ppmvd or less at 15% O₂ at the outlet of the control device or from the exhaust stack of the engine.
- b. The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6595(a)(1)	The compliance date for Part 63 Subpart ZZZZ for existing SI RICE is 10/19/13.
Applicable Tables from Part 63, Subpart ZZZZ	Following the compliance date, comply with: emission limit in Table 2c #11; performance test methods in Table 4 #3; initial compliance demonstration in Table 5 #13; reporting requirements/frequency in Table 7; general provision from Subpart A in Table 8.
40 CFR 63.6602	Following the compliance date, maintain compliance with the emission limitation in Table 2c #11 (limit formaldehyde to 10.3 ppmvd at 15% O ₂) to Part 63 Subpart ZZZZ.
40 CFR 63.6602; 40 CFR 63.6612; and 40 CFR 63.6620	Conduct an initial performance test within 180 days following the compliance date or by 4/19/14, to demonstrate compliance with the formaldehyde emission standard and in accordance with the requirements specified in Tables 4 and 5 to the subpart.
40 CFR 63.6665	Meet all of the general provisions of Subpart A, from Sections 63.1 through 63.15, that apply to the SI RICE, as identified in Table 8 to Subpart ZZZZ.



c) Operational Restrictions

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6605	General duty to minimize emissions, with good air pollution control practices for minimizing emissions; and compliance required at all times.
40 CFR 63.6625(h)	Minimize idle and startup time, not to exceed 30 minutes.

[Authority for term: OAC rule 3745-77-07(A)(1), and 40 CFR Part 63, Subpart ZZZZ]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6635	Except for monitor malfunctions, associated repairs, and required quality assurance activities, must continuously monitor that the RICE is operating. Must use all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) in calculations used to report emissions or operating levels.
40 CFR 63.6655(a)	Keep records of: 1. each notification and report submitted to comply with Subpart ZZZZ; 2. the occurrence and duration of each malfunction of the RICE and any control or monitoring equipment; 3. corrective actions taken during each period of malfunction to minimize emissions and restore normal operations; 4. records of performance tests; and 5. all required maintenance performed on air pollution control and monitoring equipment.
40 CFR 63.6625(h)	Maintain a record of each idle and/or startup time that exceeded 30 minutes.
40 CFR 63.6660	Records readily available and retained for at least 5 years after the date of occurrence or date of report according to 63.10(b)(1).

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]

e) Reporting Requirements

- (1) A comprehensive written report on the results of the performance tests, conducted to demonstrate compliance with 40 CFR 63.6602, shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]



Effective Date: To be entered upon final issuance

- (2) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6640(b)	Submit a report of each instance in which the emission limitation in Table 2c was not met; these deviations to be reported according to the requirements of 63.6650.
40 CFR 63.6640(e)	Submit a report of each instance in which the applicable requirements in Table 8 to Subpart ZZZZ, the general provisions from Subpart A, were not met.
40 CFR 63.6645(a)(1)	Submit all notifications required per 63.7(b) and (c); 63.8(e), (f)(4), and (f)(6); and 63.9(b) through (e), (g), and (h) that apply to the SI RICE.
40 CFR 63.6645(g)	Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin, as required by 63.7(b)(1).
40 CFR 63.6645(h); 40 CFR 63.6630(c); and OAC rule 3745-15-04(A)	Submit a Notification of Compliance Status for each initial compliance demonstration required in Table 5 to Subpart ZZZZ, including the performance test results, before the close of business on the 60 th day following the completion of the test; or within 30 days of the initial compliance demonstration if the demonstration does not include a performance test. OAC rule 3745-15-04(A) requires performance test results to be submitted within 30 days of the test date unless additional time is requested.
40 CFR 63.6650(a)	Submit each applicable report in Table 7 of Subpart ZZZZ.
40 CFR 63.6650(b)(1) to (5) and Part 63 Subpart ZZZZ Table 7 #1	Following the initial compliance date, submit Semiannual Compliance Reports to include the information identified in 63.6650(c) through (f), as applicable to the SI RICE. Following the initial compliance report, each subsequent report shall cover the reporting period from January 1st through June 30th and July 1st through December 31st. The Semiannual Compliance Reports must be postmarked or delivered no later than July 31st and January 31st.
40 CFR 63.6675 and Subpart ZZZZ Table 7 #1.a.ii	Definition of "limited use stationary RICE". Include in each Annual Compliance Report any exceedance of 100 hours of operation during the year.
40 CFR 63.6650(c)	63.6650(c) contains the required information to be submitted in each compliance report.
40 CFR 63.6650(d)	63.6650(d) contains the required information to be submitted for each deviation from an emission or operating limitation not monitored by a continuous monitoring system (CMS).

[Authority for term: OAC rule 3745-77-07(C)(1), and 40 CFR Part 63, Subpart ZZZZ]



f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with the method and procedures specified in OAC rule 3745-17-03(B)(1).

[Authority for term: OAC rules 3745-17-03(B)(1) and 3745-77-07(C)(1)]

b. Emission Limitation:

For emissions units (B018), (B019), (B020), particulate emissions from the engines exhaust stack shall not exceed 0.310 lb./MMBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.0095 lb/MMBtu, as specified in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, or the most recently revised AP-42 emission factor for uncontrolled filterable particulate emissions from a 4-stroke, rich-burn, natural gas-fired reciprocating engine.

If required, the permittee shall demonstrate compliance with the emission limitations in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rules 3745-17-03(B)(10) and 3745-77-07(C)(1)]

c. Emission Limitations:

10.3 ppmvd formaldehyde at 15% O₂

Applicable Compliance Method:

Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date or no later than 4/19/14, to demonstrate compliance with the formaldehyde limitation in the NESHAP. The appropriate tests methods from Table 4 to Subpart ZZZZ shall be conducted.



The performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.

The following test methods shall be employed to demonstrate compliance with the emission limitation for formaldehyde:

- i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points
- ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00: to measure O₂ at the inlet and outlet of the control device if demonstrating compliance through the percent control of CO or to determine the O₂ concentration of the stationary RICE exhaust to normalize the CO concentration.
- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary RICE exhaust.
- iv. Method 320 or Method 323 of 40 CFR Part 63,, Appendix A; or ASTM D 6348-03 to measure formaldehyde at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure formaldehyde at the exhaust of the stationary RICE.
- v. The following equation shall be used to normalize the formaldehyde concentrations to a dry basis and to 15 percent oxygen (O₂)**:

$$C_{adj} = C_d (5.9 / 20.9 - \% O_2)$$

Where:

C_{adj}= calculated formaldehyde concentration adjusted to 15 percent O₂.

C_d= measured concentration of formaldehyde, uncorrected.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

%O₂ = measured O₂ concentration, dry basis, percent.

** Optionally, the pollutant concentrations can be corrected to 15% O₂ using a CO₂ correction factor, by calculating the fuel factor (F_o value) using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

The permittee shall notify the Ohio EPA Central District Office Division of Air Pollution Control in writing of the scheduled performance test date at least 60



calendar days before it is scheduled, to allow the agency time to review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Ohio EPA Central District Office Division of Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

[Authority for terms: OAC rule 3745-15-04(A), and 40 CFR Part 60, Appendix A]

g) Miscellaneous Requirements

- (1) None.