West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy Huffman
Cabinet Secretary

Application Instructions

and Forms for General Permit G70-A

for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Oil and Natural Gas Production Facilities Located at the Well Site

THIS REFERENCE DOCUMENT PROVIDES DEFINITIONS, INFORMATION, FORMS AND INSTRUCTIONS TO BE USED WHEN PREPARING A REGISTRATION APPLICATION FOR CLASS II GENERAL PERMIT NUMBER G70-A. THE INFORMATION PROVIDED IN THIS DOCUMENT ADDRESSES THE REQUIRED COMPONENTS OF AN ADMINISTRATIVELY COMPLETE REGISTRATION APPLICATION.

Issued: October 18, 2013
Last Revised: February 6, 2014

TABLE OF CONTENTS

1.0 Definitions and Acronyms

Terms used throughout the General Permit are defined in this section. Unless otherwise indicated, other words and phrases used in this General Permit shall have the meaning ascribed to them in 45CSR2, 45CSR4, 45CSR6, 45CSR10, 45CSR13, 45CSR16, 45CSR22, and 45CSR34; W.Va. Code §§22-5-1 et seq., as amended.

ADMINISTRATIVE UPDATE
means any revision of a current and valid permit or general permit registration which meets the provisions of §45-13-4.

AFFECTED FACILITY
means for the purposes of this General Permit, any natural gas well, storage vessel, or pneumatic controller that meets the definition of an affected facility according to the definitions and requirements of New Source Performance Standards, Subpart OOOO, and reciprocating internal combustion engines (RICE) used in conjunction with any oil and natural gas production and that are subject to NSPS, Subpart JJJJ.

AIR POLLUTANTS
means solids, liquids or gases which, if discharged into the air, may result in statutory air pollution.

AIR POLLUTION OR STATUTORY AIR POLLUTION
means and is limited to the discharge into the air by an act of man substances (liquid, solid, gaseous, organic or inorganic) in a locality, manner and amount as to be injurious to human health or welfare, animal or plant life or property, or which would interfere with the enjoyment of life or property.

AIR POLLUTION CONTROL DEVICE (APCD)
means any equipment used for: (1) collecting or converting gasborne particulate or gaseous materials or (2) collecting or confining particulate matter for the purpose of preventing or reducing emission of these materials into the open air.

AUTHORIZED REPRESENTATIVE
means a person certified by a Responsible Official who shall represent and have the authority to legally bind the business. An Authorized Representative may be certified through a certification statement submitted with the General Permit Registration Application. Such certification is subject to approval by the Director.

C.F.R.
means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

COMPLETED APPLICATION
means an application submitted with the appropriate fee paid to the Director and which contains all of the information required by the Director to determine whether a permit or certificate should be issued or denied by the Director.

CONSTRUCTION
means any physical change or change in the method of operation (including fabrication, erection, installation, demolition or modification of an emissions unit) which would result in an increase in the potential to emit or an increase in actual emissions of any regulated air pollutants.

CSR
means the West Virginia Code of State Rules.

DAQ
means the Division of Air Quality of the WV Department of Environmental Protection.

DEP
means the Department of Environmental Protection.

DIRECTOR OF AIR QUALITY OR DIRECTOR
means the Director of the Division of Air Quality or a designated representative appointed by the Cabinet Secretary of the Department of Environmental Protection pursuant to the provisions of W.Va. Code §§22-1-1 et seq.

DISCHARGE
means any release, escape or emission of air pollutants into the air.

EMISSION
means the release, escape or discharge of air pollutants into the air.

EMISSIONS UNIT
means any part or activity of a stationary source which emits or discharges or has the potential to emit or discharge any regulated pollutant.

EMULSION (at the natural gas well pad)
means a system consisting of a liquid dispersed in an immiscible liquid. From the natural gas well head, this is a stable mixture of condensate, solids, and water.

EPA OR USEPA
means the United States Environmental Protection Agency.

FLARE (45CSR6-2.6)
means and includes a combustion source normally comprised of, but not limited to, a length of stack or pipe which has an attached burner mechanism designed to destroy liquid or gaseous material with an open or semi-enclosed flame. *It should be noted for the purposes of 45CSR6, there are no exceptions in the definition. Completion combustion devices meet the definition of flare per 45CSR6-2.6.*

FLARE (§60.5430)
means a thermal oxidation system using an open (without enclosure) flame. Completion combustion devices as defined in §60.5430 do not meet the definition of flares in §60.5430.

FUEL
means any form of combustible matter (solid, liquid, vapor or gas) that is used as a source of heat.

FUGITIVE EMISSIONS
means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

HAZARDOUS AIR POLLUTANT (HAP)
means any air pollutant listed pursuant to 40CFR §61.01(a) or Section 112(b) of the Clean Air Act.

INCINERATOR
means any device used to accomplish incineration.

INCINERATION
means the destruction of combustible refuse by burning in a furnace designed for that purpose. For the purposes of 45CSR6, the destruction of any combustible liquid or gaseous material by burning in a flare or flare stack, thermal oxidizer or thermal catalytic oxidizer stack shall be considered incineration. For the purposes of this general permit, the destruction of any combustible liquid or gaseous material by burning in a completion combustion devices or an enclosed combustion devices shall be considered incineration.

LEAN-BURN ENGINE
means any two or four-stroke spark-ignited internal combustion engine which is not a rich-burn engine

LOAD
means the ratio of the operating brake horsepower to the rated brake horsepower.

MAINTENANCE OPERATION
means any adjustment, repair, removal, disassembly, cleaning or replacement of components or systems of emission units or air pollution control devices required to be performed on a periodic basis to prevent part failure or malfunction, or those actions anticipated as necessary to correct an overt indication of malfunction or failure for which maintenance is not appropriate.

MAJOR STATIONARY SOURCE OR MAJOR SOURCE
means, for purposes of this General Permit, any stationary source which emits or has the potential to emit two hundred fifty (250) tons per year or more of any regulated air pollutant as defined in 45CSR14; or directly emits or has the potential to emit one hundred (100) tons per year or more of any air pollutant subject to regulation as defined in 45CSR30; or emits or has the potential to emit, in the aggregate, ten (10) tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to §112(b) of the Clean Air Act, or twenty-five (25) tpy or more of any combination of such hazardous air pollutants as defined in 45CSR30, or after July 1, 2011 emits or has the potential to emit 100,000 tpy carbon dioxide equivalent emissions.

MODIFICATION
means, for purposes of this General Permit, any proposed physical change or change in the method of operation of an affected facility that would require an individual permit pursuant to 45CSR13. Any person operating an existing affected facility who desires to modify and/or increase throughput may complete a General Permit Registration Application and if eligible, receive General Permit registration in lieu of individual permit coverage pursuant to 45CSR13.

NATURAL GAS COMPRESSOR ENGINE (ENGINE)
means a natural gas-fired reciprocating stationary internal combustion engine used to provide mechanical shaft power for compressors.

NATURAL GAS WELL
means a well that produces 6,000 cubic feet of gas or more per barrel of oil. This definition for is consistent with WV Legislative Rule language in Title 35, Series 04 (Oil and Gas Wells And Other Wells) and Series 08 (Horizontal Well Development) from the WV DEP, Office of Oil and Gas.

OIL WELL
means a well that produces less than 6,000 cubic feet of gas per barrel of oil. This definition for is consistent with WV Legislative Rule language in Title 35, Series 04 (Oil and Gas Wells And Other Wells) and Series 08 (Horizontal Well Development) from the WV DEP, Office of Oil and Gas.

OPERATING BRAKE HORSEPOWER
means the maximum operating brake horsepower as determined by the maximum load powered by an engine.

PERSON
means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country and any firm, partnership or association of whatever nature.

POTENTIAL TO EMIT
means the maximum capacity of an affected facility to emit any pollutant under its existing or proposed physical and operational design pursuant to 45CSR13.

RATED BRAKE HORSEPOWER
means the maximum brake horsepower (bhp) rating at maximum revolutions per minute (rpm) specified for proper engine operation by the manufacturer.

REGISTRANT
means a person who has submitted a General Permit Registration Application and has been granted a General Permit Registration by the Director.

REGISTRATION
means the process where the owner or operator of an eligible facility submits a complete General Permit Registration Application and is granted a General Permit Registration.

RELOCATION
means the physical movement of a stationary source outside the existing plant boundaries.

REPLACEMENT
means the removal of an existing emission unit and subsequent installation of a different emission unit in its place.

REPLACEMENT IN KIND
means the removal of an existing emission unit and subsequent installation of an identical emission unit with the same model number, horsepower, torque and emissions specifications of the engine being replaced. Replacement in kind also refers to removal and subsequent installation of air pollution control devices or an auxiliary air pollution control device with the same specification equipment.

RESPONSIBLE OFFICIAL
means one of the following: (a) For a corporation or other business entity: a President, Vice President, Secretary, Treasurer of the corporation or business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation or business entity, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than two hundred fifty (250) persons or have gross annual sales or expenditures exceeding twenty five (%25) million (in second quarter 1990 dollars), or (ii) a representative delegated with such authority and approved in advance by the Secretary; (b) For a partnership or sole proprietorship: a General Partner or the Proprietor, respectively; (c) For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official; or (d) The designated representative delegated with such authority and approved in advance by the Secretary.

Any submitted Registration Application, report, compliance certification record or Certification of Data Accuracy shall be signed by a Responsible Official or an Authorized Representative. A Responsible Official or an Authorized Representative shall have the authority to legally bind the business. An Authorized Representative may be certified by a Responsible Official through a certification statement submitted with the General Permit Registration Application. Such certification is subject to approval by the Director.

RICH-BURN ENGINE
means any four-stroke, naturally aspirated, spark-igniting internal combustion engine or any spark-ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of less than one (1) percent by volume. For engines using catalytic reduction devices, the exhaust gas oxygen concentration shall be determined from the uncontrolled exhaust stream before the catalytic element.

SECRETARY

means the Secretary of the West Virginia Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W. Va. Code §§22-1-6 or 22-1-8.

SOURCE OR STATIONARY SOURCE

means, for purposes of this General Permit, any building, structure, facility, installation or emission unit or combination thereof which emits or has the potential to emit any regulated air pollutant greater than the thresholds defined in §45CSR 13-2.24; or is subject to any substantive requirement of an emission control rule promulgated by the Secretary; or voluntarily chooses to be subject to a permit even though not otherwise required to do so.

STACK

means, but shall not be limited to, any duct, control equipment exhaust or similar apparatus which vents gases containing any regulated pollutant into the open air.

THERMAL OXIDIZER

means a method of pollution control for air polluted with small particles or combustible solids or liquids. Thermal oxidizers are typically one of two types, regenerative or recuperative. Regenerative thermal oxidizers use an oxidation technology that uses two or more ceramic heat transfer beds that act as smaller heat exchangers and a retention chamber where the organics are oxidized. It can often recover 90 to 95% of the heat generated by oxidation. A recuperative thermal oxidizer uses an oxidation technology (thermal or catalytic) that uses a plate, shell, and tube, or other conventional type of heat exchanger to heat incoming air with air from the oxidation process. Recuperative systems can often recover 50 to 75% of the heat generated by oxidation. A thermal oxidizer will have a separate combustion chamber from the exhaust stack. Thermal oxidizers are considered enclosed combustion devices for the G70-A general permit.

2.0 Class II G-70A General Permit Registration Application Requirements

The General Permit Registration Application requires the following information. Failure to submit this information will result in the Registration Application being deemed incomplete.

Header Information

Check the appropriate box for which you are applying. If the facility is a new construction, check the "construction" box. If you are applying to amend an existing permit, check the appropriate level (Modification, Class I administrative update, or Class II administrative update). If you are unsure which permit amendment level is needed, please refer to the General Permit Levels guidance provided in this document. Also, check the G70-A box for the type of General Permit Registration.

Section I. General Information

Complete Section 1 of the Application for General Permit Registration. Use the following guidelines to ensure a complete application:

1. Name of applicant as registered with the WV Secretary of State's Office.
2. Federal employer ID number (FEIN)
3. Applicant's mailing address.
4. Applicant's physical address. If there is no physical address, put "NA" or "see latitude & longitude coordinates".
5. If applicant is a subsidiary company please provide the name of the parent company
6. Provide as Attachment A a copy of the current WV Business Registration.

Section II. Facility Information

Complete Section 2 of the Application for General Permit Registration. Use the following guidelines to ensure a complete application

7. Type of Plant or Facility (oil and natural gas production facility)
8. Provide both the NAICS code and the SIC code.
   8a. The eligible SIC code is 1311 – Crude Petroleum and Natural Gas.
   8b. The eligible NAICS code is 211111 – Crude Petroleum and Natural Gas Extraction.
9. Provide the Division of Air Quality facility ID numbers if the application is for an existing facility.
10. List all current DAQ permit numbers associated with this affected facility, include any Rule 13 and other General Permits if applicable.

Operating Site Information

Alternate operating site information is not applicable for the G70-A General Permit (Section II B and Section IIC). To ensure a complete application, complete the following in Section IIA (Primary Operating Site Information):

11A. Facility name of the site (how you want the facility to be referred)
12A. Facility mailing and physical addresses. If there is no physical address, indicate "N/A".
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? If, yes –provide additional detail. If, no – you are not eligible for a permit for this source.
14A. Provide detailed directions to the facility from the nearest state road.
15A. What is the nearest city or town?
16A. What is the county that the facility is/will be located?
17A. Provide the UTM Coordinates: Northing (km), Easting (km), and Zone
The Universal Transverse Mercator (UTM) coordinate system is a grid-based method of specifying locations on the surface of the Earth. It is used to identify locations on the earth, but differs from the traditional method of latitude and longitude in several respects. The UTM system is not a single map projection. The system instead employs a series of sixty zones, each of which is based on a specifically defined secant Transverse Mercator projection.
18A. If the application is for a new facility, provide a summary of the scope for the new facility. If the application is for an update or modification to an existing permit, briefly describe the proposed change (s) to the facility.
19A. Provide the Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits). This must be the same as what is provided in the public notice.
20. Provide the target date of the installation.
21. Provide the target start-up date.
22. Provide the maximum projected operating schedule for the facility. Typically, this should be 24 hr/day, 7 days/week, and 52 weeks/year. The emissions calculations must be based on the maximum operating schedule.

Section III. Attachments and Supporting Documents

Complete Section 3 of the Application for General Permit Registration. Use the following guidelines to ensure a complete application.

23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fees. The General Permit Levels document located in the Forms section provides information regarding application fees.
24. Include a Table of Contents as the first page of your application package. The Table of Contents should include all attachments that are included with the general permit registration application.
25. Check all attachments that are included with the general permit registration application. For a complete application, please ensure that all required attachments are checked and included with

the application. Additional information is provided below to provide guidance for each of the attachments.

Attachment A - Current Business Certificate

If the applicant is a resident of the of West Virginia, the applicant should provide a copy of the current Business Registration Certificate issued to them from the West Virginia Secretary of State's Office. If the applicant is not a resident of the state of West Virginia, the registrant should provide a copy of the Certificate of Authority/Authority of LLC/Registration. This information is required for all sources regardless of whether it is a construction, modification, or an administrative update.

Attachment B - Process Description

Provide a detailed written description of the operation for which the applicant is seeking a permit. The process description is used in conjunction with the process flow diagram to provide the reviewing engineer a complete understanding of the activity at the operation. Describe in detail and order the complete process operation.

Use the following guidelines to ensure a complete Process Description:

1. The process flow diagram should be prepared first and used as a guide when preparing the process description. The written description shall follow the logical order of the process flow diagram.
2. All emission sources, emission points, and air pollution control devices must be included in the process description.
3. When modifications are proposed, describe the modifications and the effect the changes will have on the emission sources, emission points, control devices and the potential emissions.
4. Proper emission source ID numbers are used consistently in the process description, the process flow diagram, the emissions calculations, and the emissions summary information provided.
5. Include any additional information that may facilitate the reviewer's understanding of the process operation.

The process description is required for all sources regardless of whether it is a construction, modification, or administrative update.

For natural gas production facilities seeking registration under the G-70A General Permit, the applicant shall also include a discussion regarding their aggregation determination as part of their process description. Guidance regarding aggregation determinations can be found in Appendix A of this document.

Attachment C – Description of Fugitive Emissions

Provide a description of the fugitive emissions as needed to clarify any fugitive emissions provided in the Fugitive Emissions Summary Sheet. Complete and attach the Fugitive Emissions Summary Sheet. Sources of fugitive emissions may include loading operations, haul road emissions, equipment leaks, and blowdown emissions. If there are fugitive emissions from equipment leaks, complete and attach the Leak Source Data Sheet. If this information is provided in the Emissions Calculations section, it is acceptable to reference where in the application the information is located rather than duplicate the information.

Attachment D – Process Flow Diagram

Provide a diagram or schematic that supplements the process description of the operation or plant. The process flow diagram must show all sources, components or facets of the operation or plant in an understandable line sequence of operation. The process flow diagram should include the emission unit ID numbers, the pollution control device ID numbers, and the emission point ID numbers consistent with references in other attachments of the application. For a proposed modification, clearly identify the process areas, emission units, emission points, and/or control devices that will be modified, and specify the nature and extent of the modification.

Use the following guidelines to ensure a complete process flow diagram:

1. The process flow diagram shall logically follow the entire process from beginning to end.

2. Identify each emission source and air pollution control device with proper and consistent emission unit identification numbers, emission point identification numbers, and control device identification numbers.
3. The process flow lines may appear different for clarity. For example, dotted lines may be used for vapor flow and solid lines used for liquid flow.
4. The process flow lines may be color coded. For example: new or modified equipment may be red; old or existing equipment may be blue; different stages of preparation such as raw material may be green; and finished product or refuse, another color.

Attachment E – Plot Plan

Provide an accurately scaled and detailed Plot Plan showing the locations of all emission units, emission points, and air pollution control devices. Show all emission units, affected facilities, enclosures, buildings and plant entrances and exits from the nearest public road(s) as appropriate. Note height, width and length of proposed or existing buildings and structures.

A scale between 1"=10' and 1"=200' should be used with the determining factor being the level of detail necessary to show operation or plant areas, affected facilities, sources, transfer points, etc. An overall small scale plot plan (e.g., 1"=300') should be submitted in addition to larger scale plot plans for process or activity areas (e.g., 1"=50') if the plant is too large to allow adequate detail on a single plot plan. Process or activity areas may be grouped for the enlargements as long as sufficient detail is shown.

Use the following guidelines to ensure a complete Plot Plan:

1. Operation, plant or facility name
2. Company name
3. Company facility ID number (for existing facilities)
4. Plot scale, north arrow, date drawn, and submittal date.
5. Fence line
6. Property lines
7. Base elevation
8. UTM reference coordinates from the area map and corresponding reference point elevation
9. Location of all sources labeled with proper and consistent source identification numbers

This information is required for all sources regardless of whether it is a construction, modification, or administrative update.

Attachment F – Area Map

Provide a USGS 7.5 minute topographic Area Map showing the current or proposed location of the operation or plant. On this map, identify plant or operation property lines, access roads and any adjacent dwelling, business, public building, school, church, cemetery, community or institutional building or public park.

Mark and reference UTM coordinates (not latitude and longitude) and the corresponding elevation above mean sea level for the operation or plant. UTM coordinates may be acquired from the USGS 7.5" topographical map. UTM coordinates are marked as blue tick marks along the outside edges of the map. These coordinates must be provided for a point inside the plant boundary near the center of the property and be accurate to within fifty meters.

This information is required for all sources regardless of whether it is a construction, modification, or administrative update.

Attachment G – Emission Unit Data Sheets and G70-A Section Applicability Form

General Permit G70-A was developed to allow qualified applicants to seek registration for a variety of emission sources at the oil and natural gas production facility. These sources may include natural gas well affected facilities, storage vessels containing produced water and condensate, natural gas production units, in-line heaters, natural gas driven pneumatic controllers affected facilities, heater treaters, reciprocating internal combustion engines, tank truck loading operations, and glycol dehydration units.

General Permit G70-A allows the applicant to choose which sections of the permit that they want to seek registration under. Therefore, please mark which sections that you are applying for registration under on the G70-A section applicability form. This form is required for all applications. Please keep in mind that if the G70-A general permit registration is approved, the issued registration will state the sections that are applicable to your facility. All registered facilities will be subject to sections 1.0, 2.0, 3.0, and 4.0 of the G-70A general permit.

Complete and attach the Emissions Unit Table, the appropriate Emission Unit Data Sheets, and Affected Facility Data Sheet for the equipment that you are applying for registration. If the applicant prefers to continue using emission unit data sheets from the 45CSR13 applications that they are already familiar with, they will be accepted if they contain all of the requested information. The emission unit ID, emission point ID, and control device ID numbers and descriptions must be used consistently throughout the registration application.

Please follow specific guidance provided for each specific data sheet.

Attachment H - Air Pollution Control Device Data Sheet

If an air pollution control device is/will be used in the process, complete and attach the applicable Air Pollution Control Device (APCD) Sheet for device. Control Device sheets are provided for Vapor Combustion Devices (enclosed combustion devices, thermal oxidizers, flares, completion combustion devices), Carbon Adsorption Systems, and Condenser Systems. If the applicant prefers to continue using air pollution control device data sheets from the 45CSR13 applications that they are already familiar with, they will be accepted if they contain all of the requested information.

If an air pollution control device(s) is not being registered, then this section is not applicable.

Attachment I - Emissions Calculations

Provide detailed potential to emit (PTE) emission calculations for criteria and hazardous air pollutants (HAPS) for each emission point identified in the application. For hazardous air pollutants and volatile organic compounds (VOCs), the speciated emission calculations must be included.

Use the following guidelines to ensure complete emission calculations:

1. All emission sources and fugitive emissions are included in the emission calculations, as well as all methods used to calculate the emissions.
2. Proper emission point identification numbers and control device identification numbers are used consistently in the emission calculations that are used throughout the application.
3. A printout of the emission summary sheets is attached to the registration application.
4. Printouts of any modeling that was used to perform the emissions calculations must be included with the emission calculations. The modeling printout must show any inputs or assumptions that the modeled emissions are based upon.
5. If emissions are provided from the manufacturer, the manufacturer's documentation and/or certified emissions must also be included.
6. The emission calculations results must match the emissions provided on the emissions summary sheet.
7. If calculations are based on a compositional analysis of the gas, attach the laboratory analysis. Include the following information: the location that the sample was taken; the date the sample was taken, whether the sample was taken from the actual site or a representative site; and if the sample is considered representative, the reasons that it is considered representative (same gas field, same formation and depth, distance from actual site, etc.).
8. Provide any additional clarification as necessary. Additional clarification or information is especially helpful when reviewing modeling calculations to assist the engineer in understanding in the basis of assumptions and/or inputs.

Please follow specific guidance provided on the emissions summary sheet when providing the calculations.

Attachment J – Class I Legal Advertisement

Publication of a proper Class I legal advertisement is a requirement of the G70-A registration process. In the event the applicant's legal advertisement fails to follow the requirements of 45CSR13, Section 8 or the requirements of Chapter 59, Article 3, of the West Virginia Code, the application will be considered incomplete and no further review of the application will occur until this is corrected.

The applicant, utilizing the format for the Class I legal advertisement example provided in this section, shall have the legal advertisement appear a minimum of one (1) day in the newspaper most commonly read in the area where the facility exists or will be constructed. The notice must be published no earlier than five (5) working days of receipt by this office of your application. The original affidavit of publication must be received by this office no later than the last day of the public comment period.

The advertisement shall contain, at a minimum, the name of the applicant, the type and location of the source, the type and amount of air pollutants that will be discharged, the nature of the permit being sought, the proposed start-up date for the source, and a contact telephone number for more information.

The location of the source should be as specific as possible starting with: 1.) the street address of the source; 2.) the nearest street or road; 3.) the nearest town or unincorporated area, 4.) the county, and 5.) latitude and longitude coordinates in decimal format.

If the location description is not sufficiently detailed, the DAQ may require the applicant to republish the Class I legal advertisement.

Types and amounts of pollutants discharged must include all regulated pollutants (PM, PM_{10}, VOC, SO_2, Xylene, etc.) and their potential to emit or the permit level being sought in units of tons per year (including fugitive emissions). Greenhouse gas emissions (CO_2e) that are subject to regulation must also be included.

In the event the 30th day is a Saturday, Sunday, or legal holiday, the comment period will be extended until 5:00 p.m. on the following regularly scheduled business day.

An example of a Class I legal advertisement is included at the end of this section.

Attachment K - Electronic Submittal (Optional)

Provide an electronic submittal for all files that are available electronically. The electronic submittal can be accepted in the following software formats: Microsoft Word, Word Perfect, or Microsoft Excel.

Attachment L - General Permit Registration Application Fee

A person submitting a Class II G70-A general permit registration application to construct, modify, relocate or administratively update and operate an oil and natural gas production facility located at the well site shall pay a Class II general permit registration fee pursuant to 45CSR13. The registration fee shall be paid by a negotiable instrument (check, draft, warrant or money order) to DEP - Division of Air Quality. The fees associated with General Permit G70-A include:

a. $500.00 for Class II General Permit Registrations (Construction/Modification)
b. $300.00 for Class II administrative updates
c. $1000.00 for applicable NSPS fee (40CFR60, Subpart OOOO or 40CFR60, Subpart JJJJ)*
d. $2500.00 for applicable NESHAP (40CFR63, Subpart HH or 40 CFR63, Subpart ZZZZ)**

* Only one NSPS fee will apply
** Only one NESHAP fee will apply. The NESHAP fee for Subpart ZZZZ will be waived for new engines that satisfy the requirements by compliance with NSPS, Subpart JJJJ.

Any submitted registration application shall not be deemed to be complete unless payment of the proper Class II general permit registration fee(s) is (are) included (45CSR22).

Any general permit registration fee paid hereunder is not refundable (45CSR22).

A general permit levels and fee structure document is provided for reference in the forms section of this document.

Attachment M - Siting Criteria Waiver

If the applicant is seeking a waiver from the siting criteria in G70-A Section 2.1, complete the siting criteria waiver located in the forms section of this document. This waiver needs to be completed by the applicant and the person(s) granting the waiver, and notarized by an authorized West Virginia Notary Public. The waiver is only good for the submitted registration application. Therefore, any further modification or administrative update requiring public notice will require a new waiver.

Attachment N – Material Safety Data Sheets

Provide material safety data sheets for all materials processed, used or produced, such as wellhead natural gas, natural gas condensate, and produced water. Materials used in *de minimis* sources do not require an MSDS to be provided with the application.

Attachment O – Emissions Summary Sheet

Complete and attach the information in the Emissions Summary Sheet and the Fugitive Emissions Summary Sheet. The Emissions Summary Sheet provides a summation of potential emissions by emission unit. Note that uncaptured process emissions are not typically considered to be fugitive and must be accounted for on the appropriate Equipment Data Sheets (Attachment G) and on the Emissions Summary Sheet. Please note that the total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the Fugitive Emissions Summary Sheet for all fugitive emission activities including haul roads, loading, equipment leaks, and other fugitive emission activities associated with your facility.

Attachment P – Other Supporting Documentation Not Described Above

If the applicant has additional supporting documentation that is not addressed in the above attachment descriptions, please provide the information and include as Attachment P along with a description of the documentation that is being provided. Additional information such as manufacturer specification sheets supporting equipment data sheets or printouts from modeling software scan supporting emissions calculations should be provided in those sections, but can be provided as Attachment P or as Appendix documents as preferred. Other supporting documents may include natural gas analysis if not provided in another attachment.

Section IV. Certification of Information

Any general permit registration application shall be signed and certified by a Responsible Official or by an Authorized Representative as set forth in 45CSR13. Such signature shall constitute an agreement that the applicant will assume responsibility for the construction, modification, relocation, administrative update and/or operation of the stationary source in accordance with the registration application, the requirements, provisions, standards or conditions of the G70-A general permit, any other permit or applicable statutory or regulatory requirement (45CSR13). Certify whether or not the registrant is a Corporation, Partnership, Limited Liability Company, Association, Joint Venture, or a Sole Proprietorship.

If the G70-A general permit registration application is not signed, then the entire application will be returned to the applicant.

G70-A REGISTRATION APPLICATION FORMS

General Permit G70-A Registration
Section Applicability Form

General Permit G70-A was developed to allow qualified applicants to seek registration for a variety of sources. These sources include natural gas well affected facilities, storage tanks, natural gas-fired compressor engines (RICE), natural gas producing units, natural gas-fired in-line heaters, pneumatic controllers, heater treaters, tank truck loading, glycol dehydration units, completion combustion devices, flares, enclosed combustion devices, and vapor recovery systems. All registered facilities will be subject to Sections 1.0, 2.0, 3.0, and 4.0.

General Permit G70-A allows the registrant to choose which sections of the permit they are seeking registration under. Therefore, please mark which additional sections that you are applying for registration under. If the applicant is seeking registration under multiple sections, please select all that apply. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

Section 5	Natural Gas Well Affected Facility	☐
Section 6	Storage Vessels*	☐
Section 7	Gas Producing Units, In-Line Heaters, Heater Treaters, and Glycol Dehydration Reboilers	☐
Section 8	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)	☐
Section 9	*Reserved*	☐
Section 10	Natural gas-fired Compressor Engine(s) (RICE) **	☐
Section 11	Tank Truck Loading Facility ***	☐
Section 12	Standards of Performance for Storage Vessel Affected Facilities (NSPS, Subpart OOOO)	☐
Section 13	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS, Subpart JJJJ)	☐
Section 14	Control Devices not subject to NSPS, Subpart OOOO	☐
Section 15	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40CFR63, Subpart ZZZZ)	☐
Section 16	Glycol Dehydration Units	☐
Section 17	Dehydration Units With Exemption from NESHAP Standard, Subpart HH § 63.764(d) (40CFR63, Subpart HH)	☐
Section 18	Dehydration Units Subject to NESHAP Standard, Subpart HH and Not Located Within an UA/UC (40CFR63, Subpart HH)	☐
Section 19	Dehydration Units Subject to NESHAP Standard, Subpart HH and Located Within an UA/UC (40CFR63, Subpart HH)	☐

***** *Applicants that are subject to Section 6 may also be subject to Section 12 if the applicant is subject to the NSPS, Subpart OOOO control requirements or the applicable control device requirements of Section 14.*

****** *Applicants that are subject to Section 10 may also be subject to the applicable RICE requirements of Section 13 and/or Section 15.*

******* *Applicants that are subject to Section 11 may also be subject to control device requirements of Section 14.*

EXAMPLE LEGAL ADVERTISEMENT

Publication of a proper Class I legal advertisement is a requirement of the application process. In the event the applicant's legal advertisement fails to follow the requirements of 45CSR13, Section 8 or the requirements of Chapter 59, Article 3, of the West Virginia Code, the application will be considered incomplete and no further review of the application will occur.

The applicant, utilizing the format for the Class I legal advertisement appearing below, shall cause such legal advertisement to appear a minimum of one (1) day in the newspaper most commonly read in the area where the facility exists or will be constructed. The notice must be published no earlier than five (5) working days of receipt by this office of your application. The original affidavit of publication must be received by this office no later than the last day of the public comment period.

The advertisement shall contain, at a minimum, the name of the applicant, the type and location of the source, the type and amount of air pollutants that will be discharged, the nature of the permit being sought, the proposed start-up date for the source, and a contact telephone number for more information.

The location of the source should be as specific as possible starting with: 1.) the street address of the source; 2.) the nearest street or road; 3.) the nearest town or unincorporated area; 4.) the county; and 5.) latitude and longitude coordinates.

Types and amounts of pollutants discharged must include all regulated pollutants (PM, PM_{10}, VOC, SO_2, Xylene, etc.) and their potential to emit or the permit level being sought in units of tons per year (including fugitive emissions).

In the event the 30th day is a Saturday, Sunday, or legal holiday, the comment period will be extended until 5:00 p.m. on the following regularly scheduled business day.

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that **(Applicant's Legal Name)** has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a **(Construction Permit, Modification Permit, Relocation Permit, Temporary Permit, Class II Administrative Update, General Permit Registration)** for a **(Type of Operation)** located on **(Street Name, Road Number, etc.)**, **(in/near City or Town)**, in **(County Name)** County, West Virginia. The latitude and longitude coordinates are: **(Provide latitude and longitude in decimal format.)**

The applicant estimates the **(Increased, if modification application)** potential to discharge the following Regulated Air Pollutants will be: **(Pollutants and associated amounts in tons per year)**.

Startup of operation is planned to begin on or about the **(Day)** day of **(Month)**, **(Year)**. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.
Dated this the **(Day)** day of **(Month)**, **(Year)**.

By: **(Applicant's Legal Name)**
(Name of Responsible Official)
(Title of Responsible Official)
(Mailing Address)
(City, State and Zip Code)

G70-A General Permit
Siting Criteria Waiver

WV Division of Air Quality 300' Waiver

I _____ hereby
Print Name

acknowledge and agree that _____ will
General Permit Applicant's Name

construct a(n) emission unit(s) at an oil and natural gas production facility that will be located within 300' of my dwelling.

I hereby offer this waiver of siting criteria to the West Virginia Department of Environmental Protection Division of Air Quality as permission to construct, install and operate in such location.

Signed:

_____
Signature Date

_____
Signature Date

Taken, subscribed and sworn before me this _____ day of

_____, 20_____.

My commission expires: _____

SEAL_____
Notary Public

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

G70-A EMISSIONS SUMMARY SHEET

Emission Point ID No.	Emission Point Type[1]	Emission Unit Vented Through This Point		Air Pollution Control Device		All Regulated Pollutants - Chemical Name/CAS[2] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [3]		Maximum Potential Controlled Emissions [4]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [5]
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr		

The EMISSION SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSIONS SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases

[3] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[4] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; M = modeling; O = other (specify).

G70-A FUGITIVE EMISSIONS SUMMARY SHEET

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS [1]	Maximum Potential Uncontrolled Emissions [2]		Maximum Potential Controlled Emissions [3]		Est. Method Used [4]
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads						
Unpaved Haul Roads						
Loading/Unloading Operations						
Equipment Leaks		Does not apply		Does not apply		
Blowdown Emissions						
Other						

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. DO NOT LIST H_2, H_2O, N_2, O_2, and Noble Gases.
[2] Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
[3] Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
[4] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; M = modeling; O = other (specify).

NATURAL GAS WELL AFFECTED FACILITY DATA SHEET

Complete this data sheet if you are the owner or operator of a gas well affected facility for which construction, modification, or reconstruction commenced after August 23, 2011. This form must be completed for natural gas well affected facilities regardless of when flowback operations occur (or have occurred).

Please provide the API number(s) for each NG well at this facility:	

Note: This is the same API well number(s) provided in the well completion notification and as provided to the WVDEP, Office of Oil and Gas for the well permit. The API number may be provided on the application without the state code (047).

Every oil and gas well permitted in West Virginia since 1929 has been issued an API (American Petroleum Institute) number. This API is used by agencies to identify and track oil and gas wells.

The API number has the following format: 047-001-00001

Where,
047 = State code. The state code for WV is 047.
001 = County Code. County codes are odd numbers, beginning with 001 (Barbour) and continuing to 109 (Wyoming).
00001= Well number. Each well will have a unique well number.

STORAGE VESSEL EMISSION UNIT DATA SHEET

Provide the following information for each new or modified bulk liquid storage tank.

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name	2. Tank Name
3. Emission Unit ID number	4. Emission Point ID number
5. Date Installed or Modified *(for existing tanks)*	6. Type of change: ☐ New construction ☐ New stored material ☐ Other
7A. Description of Tank Modification *(if applicable)*	
7B. Will more than one material be stored in this tank? *If so, a separate form must be completed for each material.* ☐ Yes ☐ No	
7C. Provide any limitations on source operation affecting emissions. (production variation, etc.)	

II. TANK INFORMATION (required)

8. Design Capacity *(specify barrels or gallons).* Use the internal cross-sectional area multiplied by internal height.	
9A. Tank Internal Diameter (ft.)	9B. Tank Internal Height (ft.)
10A. Maximum Liquid Height (ft.)	10B. Average Liquid Height (ft.)
11A. Maximum Vapor Space Height (ft.)	11B. Average Vapor Space Height (ft.)
12. Nominal Capacity *(specify barrels or gallons)*. This is also known as "working volume.	
13A. Maximum annual throughput (gal/yr)	13B. Maximum daily throughput (gal/day)
14. Number of tank turnovers per year	15. Maximum tank fill rate (gal/min)
16. Tank fill method ☐ Submerged ☐ Splash ☐ Bottom Loading	
17. Is the tank system a variable vapor space system? ☐ Yes ☐ No If yes, (A) What is the volume expansion capacity of the system (gal)? (B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply): ☐ Fixed Roof ___ vertical ___ horizontal ___ flat roof ___ cone roof ___ dome roof ___ other (describe) ☐ External Floating Roof ___ pontoon roof ___ double deck roof ☐ Domed External (or Covered) Floating Roof ☐ Internal Floating Roof ___ vertical column support ___ self-supporting ☐ Variable Vapor Space ___ lifter roof ___ diaphragm ☐ Pressurized ___ spherical ___ cylindrical ☐ Underground ☐ Other (describe)	

III. TANK CONSTRUCTION AND OPERATION INFORMATION *(check which one applies)*

☐ Refer to enclosed TANKS Summary Sheets
☐ Refer to the responses to items 19 – 26 in section VII

IV. SITE INFORMATION *(check which one applies)*

☐ Refer to enclosed TANKS Summary Sheets
☐ Refer to the responses to items 27 – 33 in section VII

V. LIQUID INFORMATION *(check which one applies)*

☐ Refer to enclosed TANKS Summary Sheets
☐ Refer to the responses to items 34 – 39 in section VII

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

40. Emission Control Devices (check as many as apply):

☐ Does Not Apply
☐ Carbon Adsorption[1]
☐ Vent to Vapor Combustion Device[1] (vapor combustors, flares, thermal oxidizers)
☐ Condenser[1]
☐ Other[1] (describe)
☐ Rupture Disc (psig)
☐ Inert Gas Blanket of _____
☐ Conservation Vent (psig
Vacuum Setting Pressure Setting
☐ Emergency Relief Valve (psig)

[1] Complete appropriate Air Pollution Control Device Sheet

41. Expected Emission Rate (submit Test Data or Calculations here or elsewhere in the application).

Material Name and CAS No.	**Flashing Loss**		**Breathing Loss**		**Working Loss**		**Total Emissions Loss**		**Estimation Method[1]**
	lb/hr	**tpy**	**lb/hr**	**tpy**	**lb/hr**	**tpy**	**lb/hr**	**tpy**	

[1] EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify)

Remember to attach emissions calculations, including TANKS Summary Sheets and other modeling summary sheets if applicable.

SECTION VII (required if did not provide TANKS Summary Sheets)

TANK CONSTRUCTION AND OPERATION INFORMATION

19. Tank Shell Construction:
☐ Riveted ☐ Gunite lined ☐ Epoxy-coated rivets ☐ Other (describe)

20A. Shell Color:	20B. Roof Color:	20C. Year Last Painted:

21. Shell Condition (if metal and unlined):
☐ No Rust ☐ Light Rust ☐ Dense Rust ☐ Not applicable

22A. Is the tank heated? ☐ Yes ☐ No	22B. If yes, operating temperature:	22C. If yes, how is heat provided to tank?

23. Operating Pressure Range (psig):

24. Is the tank a **Vertical Fixed Roof Tank**? ☐ Yes ☐ No	24A. If yes, for dome roof provide radius (ft):	24B. If yes, for cone roof, provide slop (ft/ft):

25. Complete item 25 for **Floating Roof Tanks** ☐ Does not apply ☐

25A. Year Internal Floaters Installed:

25B. Primary Seal Type *(check one):* ☐ Metallic (mechanical) shoe seal ☐ Liquid mounted resilient seal ☐ Vapor mounted resilient seal ☐ Other (describe):

25C. Is the Floating Roof equipped with a secondary seal? ☐ Yes ☐ No

25D. If yes, how is the secondary seal mounted? *(check one)* ☐ Shoe ☐ Rim ☐ Other (describe):

25E. Is the floating roof equipped with a weather shield? ☐ Yes ☐ No			
25F. Describe deck fittings:			
26. Complete the following section for **Internal Floating Roof Tanks** ☐ Does not apply			
26A. Deck Type: ☐ Bolted ☐ Welded		26B. For bolted decks, provide deck construction:	
26C. Deck seam. Continuous sheet construction: ☐ 5 ft. wide ☐ 6 ft. wide ☐ 7 ft. wide ☐ 5 x 7.5 ft. wide ☐ 5 x 12 ft. wide ☐ other (describe)			
26D. Deck seam length (ft.):	26E. Area of deck (ft^2):	26F. For column supported tanks, # of columns:	26G. For column supported tanks, diameter of column:
SITE INFORMATION:			
27. Provide the city and state on which the data in this section are based:			
28. Daily Avg. Ambient Temperature (°F):		29. Annual Avg. Maximum Temperature (°F):	
30. Annual Avg. Minimum Temperature (°F):		31. Avg. Wind Speed (mph):	
32. Annual Avg. Solar Insulation Factor (BTU/ft^2-day):		33. Atmospheric Pressure (psia):	
LIQUID INFORMATION:			
34. Avg. daily temperature range of bulk liquid (°F):	34A. Minimum (°F):	34B. Maximum (°F):	
35. Avg. operating pressure range of tank (psig):	35A. Minimum (psig):	35B. Maximum (psig):	
36A. Minimum liquid surface temperature (°F):		36B. Corresponding vapor pressure (psia):	
37A. Avg. liquid surface temperature (°F):		37B. Corresponding vapor pressure (psia):	
38A. Maximum liquid surface temperature (°F):		38B. Corresponding vapor pressure (psia):	
39. Provide the following for each liquid or gas to be stored in the tank. Add additional pages if necessary.			
39A. Material name and composition:			
39B. CAS number:			
39C. Liquid density (lb/gal):			
39D. Liquid molecular weight (lb/lb-mole):			
39E. Vapor molecular weight (lb/lb-mole):			
39F. Maximum true vapor pressure (psia):			
39G. Maxim Reid vapor pressure (psia):			
39H. Months Storage per year. From: To:			

NATURAL GAS FIRED FUEL BURNING UNITS
EMISSION DATA SHEET

Complete the information on this data for each Gas Producing Unit(s), Heater Treater(s), and in-line heater(s) at the production pad. Reboiler information should be entered on the Glycol Dehydration Emission Unit Data Sheet.

Emission Unit ID #[1]	Emission Point ID#[2]	Emission Unit Description (Manufacturer / Model #)	Year Installed/ Modified	Type[3] and Date of Change	Control Device[4]	Design Heat Input (mmBtu/hr)[5]	Fuel Heating Value (Btu/scf)[6]

[1] Enter the appropriate Emission Unit (or Sources) identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For sources, use 1S, 2S, 3S…or other appropriate designation. Enter glycol dehydration unit Reboiler Vent data on the *Glycol Dehydration Unit Data Sheet*.

[2] Enter the appropriate Emission Point identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For emission points, use 1E, 2E, 3E…or other appropriate designation.

[3] New, modification, removal

[4] Complete appropriate air pollution control device sheet for any control device.

[5] Enter design heat input capacity in mmBtu/hr.

[6] Enter the fuel heating value in Btu/standard cubic foot.

NATURAL GAS-FIRED COMPRESSOR ENGINE (RICE) EMISSION UNIT DATA SHEET

Complete this section for any natural gas-fired reciprocating internal combustion engine.

Emission Unit (Source) ID No.[1]							
Emission Point ID No. [2]							
Engine Manufacturer and Model							
Manufacturer's Rated bhp/rpm							
Source Status[3]							
Date Installed/Modified/Removed[4]							
Engine Manufactured/Reconstruction Date[5]							
Is this engine subject to 40CFR60, Subpart JJJJ?							
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60, Subpart JJJJ? (Yes or No)[6]							
Is this engine subject to 40CFR63, Subpart ZZZZ? (yes or no)							
Engine, Fuel and Combustion Data	Engine Type[7]						
	APCD Type[8]						
	Fuel Type[9]						
	H_2S (gr/100 scf)						
	Operating bhp/rpm						
	BSFC (Btu/bhp-hr)						
	Fuel throughput (ft^3/hr)						
	Fuel throughput ($MMft^3$/yr)						
	Operation (hrs/yr)						
Reference[10]	Potential Emissions[11]	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
	NO_X						
	CO						
	VOC						
	SO_2						
	PM_{10}						
	Formaldehyde						
MRR[12]	Proposed Monitoring:						
	Proposed Recordkeeping:						
	Proposed Reporting:						

Instructions for completing the Engine Emission Unit Data Sheet:

1. Enter the appropriate Emission Unit (Source) identification number for each natural gas-fueled reciprocating internal combustion compressor/generator engine located at the production pad. Multiple compressor engines should be designated CE-1S, CE-2S, etc. or other appropriate designation. Generator engines should be designated GE-1S, GE-2S, etc. or other appropriate designation. If more than three (3) engines exist, please use additional sheets.
2. For Emission Points, use the following numbering system: 1E, 2E, etc. or other appropriate designation.
3. Enter the Source Status using the following codes: NS = Construction of New Source (installation); ES = Existing Source; MS = Modification of Existing Source; and RS = Removal of Source
4. Enter the date (or anticipated date) of the engine's installation (construction of source), modification or removal.
5. Enter the date that the engine was manufactured, modified or reconstructed.
6. Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart JJJJ. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4243a(2)(i) through (iii), as appropriate. ***Provide a manufacturer's data sheet for all engines being registered and a manufacturer's EPA certification of conformity sheet.***
7. Enter the Engine Type designation(s) using the following codes: LB2S = Lean Burn Two Stroke, RB4S = Rich Burn Four Stroke, and LB4S =Lean Burn Four Stroke.
8. Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes: NSCR = Rich Burn & Non-Selective Catalytic Reduction, PSC = Rich Burn & Prestratified Charge, SCR = Lean Burn & Selective Catalytic Reduction, or CAT = Lean Burn & Catalytic Oxidation
9. Enter the Fuel Type using the following codes: PQ = Pipeline Quality Natural Gas, or RG = Raw Natural Gas
10. Enter the Potential Emissions Data Reference designation using the following codes. Attach all referenced data to this *Compressor/Generator Data Sheet(s)*. Codes: MD = Manufacturer's Data, AP = AP-42 Factors, GR = GRI-HAPCalc™ , or OT = Other _____ (please list)
11. Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet as Attachment O*.
12. Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the operation of this engine operation and associated air pollution control device. Include operating ranges and maintenance procedures required by the manufacturer to maintain the warranty.

GLYCOL DEHYDRATION EMISSION UNIT DATA SHEET

General Glycol Dehydration Unit Data		Manufacturer and Model			
		Max Dry Gas Flow Rate (mmscf/day)			
		Design Heat Input (mmBtu/hr)			
		Design Type (DEG or TEG)			
		Source Status[2]			
		Date Installed/Modified/Removed[3]			
		Regenerator Still Vent APCD[4]			
		Control Device ID[4]			
		Fuel HV (Btu/scf)			
		H_2S Content (gr/100 scf)			
		Operation (hrs/yr)			
Emission Unit ID/ Emission Point ID[1]	Vent	Reference[5]	Potential Emissions[6]	lbs/hr	tons/yr
	Reboiler Vent		NO_X		
			CO		
			VOC		
			SO_2		
			PM_{10}		
	Glycol Regenerator Still Vent	GRI-GLYCalc™	VOC		
		GRI-GLYCalc™	Benzene		
		GRI-GLYCalc™	Ethylbenzene		
		GRI-GLYCalc™	Toluene		
		GRI-GLYCalc™	Xylenes		
		GRI-GLYCalc™	n-Hexane		

1. Enter the appropriate Emission Unit ID Numbers and Emission Point ID Numbers for the glycol dehydration unit reboiler vent and glycol regenerator still vent. The glycol dehydration unit reboiler vent and glycol regenerator still vent should be designated RBV-1 and RSV-1, respectively. If the compressor station incorporates multiple glycol dehydration units, a *Glycol Dehydration Emission Unit Data Sheet* shall be completed for each, using Source Identification #s RBV-2 and RSV-2, RBV-3 and RSV-3, etc.

2. Enter the Source Status using the following codes:

NS	Construction of New Source	ES	Existing Source
MS	Modification of Existing Source	RS	Removal of Source

3. Enter the date (or anticipated date) of the glycol dehydration unit's installation (construction of source), modification or removal.

4. Enter the Air Pollution Control Device (APCD) type designation using the following codes and the control device ID number:

NA	None	CD	Condenser
FL	Flare	CC	Condenser/Combustion Combination
TO	Thermal Oxidizer		

5. Enter the Potential Emissions Data Reference designation using the following codes:

MD	Manufacturer's Data	AP	AP-42	
GR	GRI-GLYCalc™	OT	Other _____	(please list)

6. Enter the Reboiler Vent and Glycol Regenerator Still Vent Potential to Emit (PTE) for the listed regulated pollutants in lbs per hour and tons per year. The Glycol Regenerator Still Vent potential emissions may be determined using the most recent version of the thermodynamic software model GRI-GLYCalc™ (Radian International LLC & Gas Research Institute). Attach all referenced Potential Emissions Data (or calculations) and the GRI-GLYCalc *Aggregate Calculations Report* to this *Glycol Dehydration Emission Unit Data Sheet(s)*. This PTE data shall be incorporated in the *Emissions Summary Sheet*.

Include a copy of the GRI-GLYCalc™ analysis. This includes a printout of the aggregate calculations report, which shall include emissions reports, equipment reports, and stream reports.

TANK TRUCK LOADING
EMISSION UNIT DATA SHEET

Furnish the following information for each new or modified bulk liquid transfer area or loading rack at the natural gas production pad. This form is to be used for bulk liquid transfer operations to tank trucks.

1. Emission Unit ID:	2. Emission Point ID:	3. Year Installed/ Modified:
4. Emission Unit Description:		
5. Loading Area Data:		
5A. Number of pumps:	5B. Number of liquids loaded:	5C. Maximum number of tank trucks loading at one time:
6. Describe cleaning location, compounds and procedure for tank trucks:		
7. Are tank trucks pressure tested for leaks at this or any other location? ☐ Yes ☐ No If YES, describe:		

8. Projected Maximum Operating Schedule (for rack or transfer point as a whole):

Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day				
days/week				

9. Bulk Liquid Data *(add pages as necessary):*

Liquid Name			
Max. daily throughput (1000 gal/day)			
Max. annual throughput (1000 gal/yr)			
Loading Method [1]			
Max. Fill Rate (gal/min)			
Average Fill Time (min/loading)			
Max. Bulk Liquid Temperature (^{o}F)			
True Vapor Pressure [2]			
Cargo Vessel Condition[3]			
Control Equipment or Method [4]			
Minimum collection efficiency (%)			
Minimum control efficiency (%)			

** Continued on next page*

Maximum Emission Rate	Loading (lb/hr)			
	Annual (ton/yr)			
Estimation Method [5]				

Notes:

[1] BF = Bottom Fill SP = Splash Fill SUB = Submerged Fill

[2] At maximum bulk liquid temperature

[3] B = Ballasted Vessel, C = Cleaned, U = Uncleaned (dedicated service), O = other (describe)

[4] List as many as apply (complete and submit appropriate *Air Pollution Control Device Sheets as Attachment "H"*):
CA = Carbon Adsorption
VB = Dedicated Vapor Balance (closed system)
ECD = Enclosed Combustion Device
F = Flare
TO = Thermal Oxidation or Incineration

[5] EPA = EPA Emission Factor as stated in AP-42
MB = Material Balance
TM = Test Measurement based upon test data submittal
O = other (describe)

10. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING *Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment operation/air pollution control device.*	RECORDKEEPING *Please describe the proposed recordkeeping that will accompany the monitoring.*
REPORTING *Please describe the proposed frequency of reporting of the recordkeeping.*	TESTING *Please describe any proposed emissions testing for this process equipment/air pollution control device.*

11. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty:

LEAK SOURCE DATA SHEET

Source Category	Pollutant	Number of Source Components[1]	Number of Components Monitored by Frequency[2]	Average Time to Repair (days)[3]	Estimated Annual Emission Rate (lb/yr)[4]
Pumps[5]	light liquid VOC[6,7]				
	heavy liquid VOC[8]				
	Non-VOC[9]				
Valves[10]	Gas VOC				
	Light Liquid VOC				
	Heavy Liquid VOC				
	Non-VOC				
Safety Relief Valves[11]	Gas VOC				
	Non VOC				
Open-ended Lines[12]	VOC				
	Non-VOC				
Sampling Connections[13]	VOC				
	Non-VOC				
Compressors	VOC				
	Non-VOC				
Flanges	VOC				
	Non-VOC				
Other	VOC				
	Non-VOC				

[1 - 13] See notes on the following page.

Notes for Leak Source Data Sheet

1. For VOC sources include components on streams and equipment that contain greater than 10% w/w VOC, including feed streams, reaction/separation facilities, and product/by-product delivery lines. Do not include certain leakless equipment as defined below by category.

2. By monitoring frequency, give the number of sources routinely monitored for leaks, using a portable detection device that measures concentration in ppm. Do not include monitoring by visual or soap-bubble leak detection methods. "M/Q(M)/Q/SA/A/O" means the time period between inspections as follows:

   Monthly/Quarterly, with Monthly follow-up of repaired leakers/Quarterly/Semi-annual/Annually/Other (specify time period)

   If source category is not monitored, a single zero in the space will suffice. For example, if 50 gas-service valves are monitored quarterly, with monthly follow-up of those repaired, 75 are monitored semi-annually, and 50 are checked bimonthly (alternate months), with non checked at any other frequency, you would put in the category “valves, gas service:” 0/50/0/75/0/50 (bimonthly).

3. Give the average number of days, after a leak is discovered, that an attempt will be made to repair the leak.

4. Note the method used: MB - material balance; EE - engineering estimate; EPA - emission factors established by EPA (cite document used); O - other method, such as in-house emission factor (specify).

5. Do not include in the equipment count sealless pumps (canned motor or diaphragm) or those with enclosed venting to a control device. (Emissions from vented equipment should be included in the estimates given in the Emission Points Data Sheet.)

6. Volatile organic compounds (VOC) means the term as defined in 40 CFR □51.100 (s).

7. A light liquid is defined as a fluid with vapor pressure equal to or greater than 0.04 psi (0.3 Kpa) at 20°C. For mixtures, if 20% w/w or more of the stream is composed of fluids with vapor pressures greater than 0.04 psi (0.3 Kpa) at 20 °C, then the fluid is defined as a light liquid.

8. A heavy liquid is defined as a fluid with a vapor pressure less than 0.04 psi (0.3 Kpa) at 20°C. For mixtures, if less than 20% w/w of the stream is composed of fluids with vapor pressures greater than 0.04 psi (0.3 Kpa) at 20 °C, then the fluid is defined as a heavy liquid.

9. LIST CO, H_2S, mineral acids, NO, NO_2, SO_3, etc. DO NOT LIST CO_2, H_2, H_2O, N_2, O_2, and Noble Gases.

10. Include all process valves whether in-line or on an open-ended line such as sample, drain and purge valves. Do not include safety-relief valves, or leakless valves such as check, diaphragm, and bellows seal valves.

11. Do not include a safety-relief valve if there is a rupture disk in place upstream of the valve, or if the valve vents to a control device.

12 Open-ended lines include purge, drain and vent lines. Do not include sampling connections, or lines sealed by plugs, caps, blinds or second valves.

13. Do not include closed-purge sampling connections.

AIR POLLUTION CONTROL DEVICE
Vapor Combustion Control Device Sheet

Complete this vapor combustion control device sheet for each enclosed combustion device, flare, thermal oxidizer, or completion combustion device that is located at the natural gas production pad for the purpose of thermally destructing waste gas to control emissions of regulated pollutants to the atmosphere.

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS FORM BEFORE COMPLETING.

General Information

1. Control Device ID#:	2. Installation Date: ☐ New	
3. Maximum Rated Total Flow Capacity: scfh scfd	4. Maximum Design Heat Input: MMBtu/hr	5. Design Heat Content: BTU/scf

Control Device Information

6. Select the type of vapor combustion control device being used: ☐ Enclosed Combustion Device ☐ Elevated Flare ☐ Ground Flare ☐ Thermal Oxidizer ☐ Completion Combustion Device

7. Manufacturer: Model No.:	8. Hours of operation per year:

9. List the emission units whose emissions are controlled by this vapor combustion control device: (Emission Point ID#: _____)

10. Emission Unit ID#	Emission Source Description:	Emission Unit ID#	Emission Source Description:

If this vapor combustor controls emissions from more than six emission units, please attach additional pages.

11. Assist Type	12. Flare Height	13. Tip Diameter	14. Was the design per §60.18?
☐ Steam - ☐ Air - ☐ Pressure - ☐ Non -	ft	ft	☐Yes ☐No

Waste Gas Information

15. Maximum waste gas flow rate (scfm):	16. Heat value of waste gas stream (BTU/ft3)	17. Temperature of the emissions stream (°F)	18. Exit Velocity of the emissions stream (ft/s)

19. Provide an attachment with the characteristics of the waste gas stream to be burned.

Pilot Information

20. Type/Grade of pilot fuel:	21. Number of pilot lights:	22. Fuel flow rate to pilot flame per pilot (scf/hr):	23. Heat input per pilot (BTU/hr):	24. Will automatic re-ignition be used?
				☐ Yes ☐ No

25. If automatic re-ignition will be used, describe the method:

26. Describe the method of controlling flame:

27. Is pilot flame equipped with a monitor to detect the presence of the flame? ☐ Yes ☐ No	28. If yes, what type? ☐ Thermocouple ☐ Infra-Red ☐ Ultra Violet ☐ Camera with monitoring control room ☐ Other, describe:

29. Pollutant(s) Controlled	30. % Capture Efficiency	31. Manufacturer's Guaranteed Control Efficiency (%)

32. Has the control device been tested by the manufacturer and certified?

33. Describe all operating ranges and maintenance procedures required by the manufacturer to maintain warranty:

34. Additional Information Attached? ☐ **YES** ☐ **NO**

Please attach a copy of manufacturer's data sheet.
Please attach a copy of manufacturer's drawing.
Please attach a copy of the manufacturer's performance testing.

If any of the requested information is not available, please contact the manufacturer.

INSTRUCTIONS:
Vapor Combustion Control Device

This form assumes one vapor combustion control device emissions are being released from the emission point identification number (including the waste gas emissions and pilot emissions). If multiple vapor combustion control devices are being used at the oil and natural gas production facility, a vapor control device sheet must be completed for each device. The same form is being used for all types of vapor combustion control devices.

General Information

1. Enter the control device ID#(s) that has been assigned to this control device. A unique control device identification number should identify each control device located at the affected facility.
2. Enter the date that the control device was installed at the affected facility. Include the month, day, and year. If this is a new control device that has yet to be installed, check the "NEW" box.
3. Enter the maximum rated total flow rate of the vapor combustion device. This includes the flow rate of all materials to be burned including the pilot fuel and the waste gas.
4. Enter the maximum rated design heat input capacity of the vapor combustion device in terms of million British thermal units per hour (MMBtu/hr).
5. Enter the total design heat content of the pilot in terms of million British thermal units per hour (MMBtu/hr).

Control Device Information

6. Indicate the type of vapor combustion device that applies.
7. Enter the manufacturer and model number of the control device.
8. Enter the hours of operation that the control device is planned to be used. This should be the same basis as the emissions calculations.
9. Enter the emission point identification number.
10. Enter ALL of the emission units whose emissions will be controlled and then emitted from the control device.
11. Select whether the flare is steam-assisted, air-assisted, pressure-assisted, or non-assisted.
12. Enter the height of the stack in terms of feet.
13. Enter the tip diameter (in feet) of the top of the stack where the emissions are discharged.
14. Is the applicant having the combustion device designed per §60.18? Only flares required by an NSPS standard are required to be designed and operated in accordance with §60.18.

Waste Gas Information

The waste gas is the vapor emissions that are being controlled.

15. Enter the waste gas flow rate in cubic feet per minute that is being consumed.
16. Enter the heat content of the waste gas being combusted in units of BTU per cubic feet.
17. Enter the minimum temperature of the emissions stream (°F).
18. Enter the velocity in feet per second of the gas as it discharges from the top of the stack.
19. Provide the characterization of the waste gas stream that is being controlled. This could be a certificate of analysis of the natural gas from this facility or from a similar facility. This is the basis of the emissions calculations.

Pilot Information

20. Enter the type/grade(s) of fuel that will combusted in the combustion flare's pilot (examples: natural gas pipeline quality, propane, etc.).
21. How many pilot lights does the device have?
22. What is the fuel capacity for each pilot?
23. What is the heat input for each pilot?
24. Is the system designed with automatic re-ignition?
25. Describe the re-ignition method and system.
26. Describe the method of controlling the pilot flame.
27. Is the pilot flame equipped with a monitoring device?
28. What is the monitoring device for the pilot flame?

**continued next page*

Control Information

29. Enter the types of pollutants that the control equipment controls (i.e., reduces). If numerous pollutants are controlled, indicate the different pollutants controlled in line with their respective control efficiencies.
30. What is the % capture efficiency of the collection system to the control device? In other words, what is the percentage of the waste gas stream will be controlled?
31. Enter the control efficiency of the control equipment for each pollutant being controlled. The manufacturer typically provides a manufacturer's minimum guarantee control efficiency. Provide the manufacturer's data sheet that documents the minimum guarantee.
32. Please answer if the control device had a performance test conducted by the manufacturer and if it is certified.
33. Describe the manufacturer's operating and maintenance requirements that the guaranteed control efficiency is based upon.
34. Please include any additional information associated with the control device you feel should be submitted with this application. Please attach a copy of the manufacturer's data sheet. Please include the manufacturer's performance testing.

Air Pollution Control Device Sheet
Vapor Recovery Device: CARBON ADSORPTION SYSTEM

Equipment Information

1. Name of Control Device:	2. Control Device ID No.:
3. Manufacturer: Model No.	4. Installation Date: or New ☐
5. Design Capacity of Carbon Bed:	6. Number of carbon beds: Are the carbon beds in ☐ Series ☐ Parallel
7. Total Design Capacity of Carbon Beds:	8. Design Control Efficiency:
9. Please select adsorber type: ☐ Non-regenerative ☐ Regenerative	
10. Provide diagram(s) of unit.	

Vent Stream Characteristics

11. Vent stream composition:

12. Constituent concentrations:

Pollutant	INLET VENT	DESIGN EXHAUST VENT
A		
B		
C		
D		
E Total VOC's		

13. Gas Flow Rate: acfm	14. Relative Humidity %	15. Temperature °F

Activated Carbon Adsorbent Characteristics

16. Type of Activated Carbon:
17. Working capacity of activated carbon used for the carbon bed: lbs pollutant/lbs carbon
18. Design carbon replacement intervals (based on the total carbon working capacity and operating schedule):
19. Saturation Capacity of Pollutant on adsorbent (supply units):

Regenerative Systems

20. Type of regeneration: ☐ Replacement ☐ Stream ☐ Other, specify:

21. Method of Regeneration:

☐ Alternate use of entire units ☐ Source shut down

☐ Alternate use of beds in a single unit ☐ Other (describe):

22. Design total regeneration stream flow over the period of each complete carbon bed regeneration cycle:

23. Design carbon bed temperature after regeneration: °F

24. Design carbon bed regeneration time:

25. Disposition of vapors during regeneration:

26. Design service life of the carbon:

27. Guaranteed minimum efficiency per pollutant captured:

	Captured Pollutant	Minimum Efficiency
A		%
B		%
C		%
D		%
E		%

28. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):

29. Describe the collection material disposal system:

30. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

31. Have you included ***Adsorption Control Device*** in the Emissions Summary Sheet?

Air Pollution Control Device Sheet
(CONDENSER SYSTEM)

Control Device ID No. : Installation Date: or New ☐

Equipment Information and Filter Characteristics

1. Manufacturer: Model No.	2. Method: ☐ Pressure condensation ☐ Temperature condensation ☐ Surface ☐ Contact ☐ Other, specify
3. Control Device Name:	
4. Provide diagram of condenser:	
5. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.	
6. Heat exchanger area: ft^3	7. Reported removal efficiency: %
8. Coolant Used:	9. Refrigeration capacity: Ref. tons
10. Composition of coolant:	11. Internal operating temperature: °F
12. Specific heat of coolant: BTU/lb.°F, at 77°F	13. Temperature of condensation: °F
Average Operation:	**Maximum Operation:**
14. Coolant Temperature: Inlet: °F Outlet: °F	15. Coolant Temperature: Inlet: °F Outlet: °F
16. Gas Temperature: Inlet: °F Outlet: °F	17. Gas Temperature: Inlet: °F Outlet: °F
18. Gas flow rate: ft^3/min	19. Gas flow rate: ft^3/min
20. Coolant flow rate per condenser: Type: Water: gal/min Air: ft^3/min Other: lb/hour	21. Coolant flow rate per condenser: Type: Water: gal/min Air: ft^3/min Other: lb/hour
22. Efficiency of condenser: %	23. Efficiency of condenser: %
24. Condenser surface area: ft^2	25. Condenser surface area: ft^2

26. Pollutant	Guaranteed Minimum Control Efficiency %	Concentration ppmv	Specific Heat BTU/lb-mol °F	Heat of Vaporation BTU/lb-mol
A				
B				
C				
D				
E				
F				
G				
Total Concentration in ppmv				

Emission Gas (Vapor) Stream

27. **Before Condenser**		28. **After Condenser**	
Inlet vapor flow rate:	ft^3/min	Inlet vapor flow rate:	ft^3/min
Influent vapor temperature:	°F	Influent vapor temperature:	°F
Effluent vapor temperature:	°F	Effluent vapor temperature:	°F

29.	INLET			OUTLET		
Pollutant	**Vapor Pressure**	**Condensation Temperature**	**Rate lb/hr**	**Rate lb/hr**	**Vapor Pressure**	**Condensation Temperature**
A						
B						
C						
D						
E						
F						
G						
Total of the POLLUTANT lb/hr						

30. Moisture content: %

31. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):

32. Describe the collection material disposal system:

33. Have you included *Condenser Control Device* in the Emissions Summary Sheet?

34. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.
35. Manufacturer's Guaranteed Control Efficiency for each air pollutant.
36. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

APPENDIX A

General Permit Levels and Fee Structure
Construction, Modification, Relocation, Administrative Update

Class II General Permits – G10-C (Coal Preparation and Handling), G20-B (Hot Mix Asphalt), G30-B (Natural Gas Compressor Stations), G35-A (Natural Gas Compressor Stations with Flares/Glycol Dehydration Units), G40-B (Nonmetallic Minerals Processing), G50-B (Concrete Batch Plant), G60-B (Emergency Generators), and G70-A (Natural Gas Production Facilities Located at the Well Site)

Class I General Permits – G33-A (Spark Ignition Internal Combustion Engines $\geq$ 25HP $\leq$ 500 HP and G65-B(Emergency Generators)

General Permit	**Public Notice**	**Review Period as per 45CSR13**	**Application Fee**	**Criteria**	**Application Type**
Class II General Permit (Construction)	30 days (applicant)	45 days	$500 + applicable NSPS fee + applicable NESHAP fee	6 lb/hr and 10 tpy of any regulated air pollutant OR 144 lb/day of any regulated air pollutant, OR 2 lb/hr of any hazardous air pollutant OR 5 tpy of aggregated HAP OR 45CSR27 TAP (10% increase if above BAT triggers or increase to BAT triggers) or subject to applicable standard or rule, but subject to specific eligibility requirements	Registration Application
Class II General Permit (Modification)	30 days (applicant)	45 days	$500 + applicable NSPS fee + applicable NESHAP fee	Same as Class II General Permit (Construction)	Registration Application
Administrative Update (Class I)	None	45 days	None	Decrease in emissions or permanent removal of equipment OR more stringent requirements or change in MRR that is equivalent or superior	Registration Application or Written Request
Administrative Update (Class II)	30 days (applicant)	45 days	$300 + applicable NSPS fee + applicable NESHAP fee	No change in emissions or an increase less than Class II Modification levels	Registration Application
Relocation	30 days (applicant)	45 days	$500 + applicable NSPS fee + applicable NESHAP fee	No emissions increase or change in facility design or equipment	Registration Application
Class I General Permit	None	45 days	$250	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application

G70-A Visual Emissions Record Example
(Company Name); (Facility Name)
Plant ID No. (Plant ID #); Permit No. G70-A- (permit #)

Date of Observation: _____
Date Entered by: _____
Reviewed by: _____
Date Reviewed: _____

Describe the General Weather Conditions:

_____

_____

Stack ID / Vent ID / Emission Point ID	
Stack / Vent / Emission Point Description	
Time of Observation	
Visible Emissions? Yes / No	
Consecutive Months of Visible Emissions	
Comments	

Aggregation Discussion Guidance:

The information provided below is taken from outreach previously provided by WVDAQ regarding air permit issues related to the natural gas industry in regards to single source determinations. This discussion guidance is provided to communicate information that should be considered and included in the aggregation determination discussion that is provided with the G70-A registration applications. Aggregation Determinations are complex and made on a case-by-case basis. If additional information is required, it will be requested.

What does Aggregation mean?

- "Stationary source" is defined as any "building, structure, facility or installation which emits, or may emit any air pollutant".
- "Building, structure, facility, or installation" is defined as all the pollutant emitting activities which belong to the same major industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person
- If a facility meets all of these criteria, emissions from all applicable sources must be aggregated in order to determine the facility's total emissions in regards to major source or PSD status

Three-prong test:

Same Industrial Grouping

- The sources belong to a single industrial grouping if they belong to the same "major group" (have the same two (2)-digit SIC code).

Common control of the same person

- The sources are under common of the same person (or persons under common control)
- Common control can be established through ownership. Control of the same person refers to corporate control, not site management. If two divisions of a corporation operate at the same site, even if each operation is managed separately, they will count as one source provided the other criteria are met because they are under control of the same company.
- Common control can be established if an entity has decision-making authority over the operations of a second entity
- Is there a contract for service relationship between two entities?
- Is there a support/dependency relationship between two entities?

Contiguous or Adjacent Properties

- The sources are located on one or more "contiguous or adjacent" properties
- "Contiguous or Adjacent" determinations are made on a "case by case" basis
- These determinations are based on the relationship between the activities in question (same industrial grouping, common control) Regulations do not define these terms.
- Dictionary Definitions:
  Contiguous – being in actual contact; touching along a boundary or at a point.
  Adjacent – not distant; nearby; having common endpoint or border.
- "Contiguous" or "adjacent" are proximity based
- Focus on proximity and the common sense notion of a plant
- Avoid aggregating pollutant emitting activities that as a group would not fit within the ordinary meaning of "building", "structure", "facility" or "installation"
- There is no defined distance

What can you do?

- Provide as much information as possible to support your aggregation determination

This includes: (a) SIC code of facility; (b) ownership issues; (c) contiguous or adjacent issues; (d) proximity; (e) operational dependence or lack thereof; (f) what equipment is in question; and (g) why you made the aggregation decision

Additional References:

WV Department of Environmental Protection (DEP):

Division of Air Quality (DAQ) www.dep.wv.gov/daq

The following information specific to the natural gas industry can be found at the DAQ website:

- Natural Gas Well Flowback Notifications Instructions and Form
- WV Greenhouse Gases Permitting Guidance Document
- DAQ Permitting rules and forms

WVDAQ e-mail address for well completion notifications is: DEPOilandGasSector@wv.gov

U.S. EPA e-mail address for well completion notifications to EPA, Region 3 is: Oil_and_Gas_Sector@epa.gov

Office of Oil and Gas website is: www.dep.wv.gov/oil-and-gas

Federal websites:

U.S. EPA Emission Factors and AP-42 Compilation of Air Pollutant Emission Factors can be found at http://www.epa.gov/ttn/chief/ap42/

Electronic Code of Federal Regulations:

New Source Performance Standards (NSPS) Subparts OOOO, and JJJJ can be found at www.ecfr.gov

National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Subpart ZZZZ can be found at www.ecfr.gov

U.S. EPA website for Oil and Natural Gas Air Pollution Standards can be found at www.epa.gov/airquality/oilandgas/actions.html. The following information can be accessed from this site:

- Final rule – Federal Register version dated August 16, 2012
- Overview fact sheet
- Summary of key changes to the rule
- Summary of requirements for Natural gas well sites, Natural gas gathering and boosting stations, Gas processing plants, Natural gas transmission compressor stations, and the oil industry.
- Information for States
- Presentation – Reducing Air Pollution from the Oil and Natural Gas Industry
- Regulatory Impact Analysis

July 25, 2012 Letter from API and EPA response regarding Oil and Natural Gas Sector Consolidated Rulemaking, Docket ID No. EPA-HQ-OAR-2012-05005
http://www.epa.gov/airquality/oilandgas/pdfs/20120725apiletter.pdf