



FREQUENTLY ASKED QUESTIONS

General Permit-5 ([GP-5](#)) and [Category No. 38 of Exemption criteria](#)

GP- 5 is a General Plan Approval and/or General Operating Permit for Natural Gas Compression and/or Processing Facilities. This GP applies to mid-stream natural gas gathering, compression and/or processing facilities that are minor air contamination sources or facilities. Category No. 38 of Exemption criteria of the Air Quality Permit Exemption List applies to sources located at a well pad.

General Permit-5 (GP-5)

Applicability:

- 1. Question:** *If a compressor engine(s) (located at a well pad) is compressing/conveying gas from multiple well pads, would the engine(s) and well pad facility be considered a compressor station and potentially be authorized via a GP-5?*
- 2. Question:** *Please explain the circumstances under which it would be appropriate to apply for a GP-5 at a well site.*

Response: GP-5 may be authorized by the Department of Environmental Protection (DEP or Department) for engines located at a well pad provided the well pad is aggregated as a single facility with mid-stream natural gas compression sources. The gases must be collected and compressed from multiple well pads by the engine(s) located at a well pad.

GP-5 is applicable only to natural gas compression and/or processing facilities that are not major sources. GP-5 requirements, including quarterly leak detection and repair (LDAR), will be applicable to the entire facility, including sources located at the well pad. In such cases, Category No. 38 of Exemption criteria will not be applicable to sources located at the well pad because they are covered by GP-5. All emissions, including leaks from the facility, must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

- 3. Question:** *There has been some confusion concerning emission sources of minor significance which are detailed in the permit applications, such as crankcase vents, seal vents, and tank vents, versus fugitive emissions. In addition to clarifying in the application, are there other ways that industry can avoid this confusion?*

Response: GP-5 is applicable only for minor facilities. Emissions from all sources including fugitive emissions must be included in the GP-5 Application.

GP-5 LDAR Requirements:

4. **Question:** *What is the definition of a leak?*
5. **Question:** *What alternatives are allowed to the camera?*

Response: DEP considers a “leak” as any release of gaseous hydrocarbons that is determined by Audible, Visual, and Olfactory (“AVO”) inspection, which is required to be performed on a monthly basis by GP-5. DEP also considers a “leak” as any release of gaseous hydrocarbons that will be detected by a Forward looking infrared (FLIR) camera or any gas leak detection device, which is required to be used on a quarterly basis under GP-5.

However, any equipment or component that is designed to protect the equipment or safety of personnel is not considered a “leak.” A release from any equipment or component designed by the manufacturer to protect the equipment, controller, personnel, to prevent ground water contamination, gas migration, or an emergency situation is also not considered a leak.

The owner or operator may use any gas detection device approved by the Department to detect leaks. Condition H.2 in GP-5 would authorize the use of any technology for leak detection as an alternate to FLIR provided it is approved by DEP following a case-by-case evaluation of the device or technology.

6. **Question:** *Will the leaks need to be included in any annual emissions reporting?*

Response: As required by 25 Pa. Code § 135.3, an owner or operator is required to report emissions from leaks in the annual source report. The annual source report must be submitted to DEP by March 1st each calendar year for emissions during the previous calendar year. All emissions, including leaks from the facility, must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

7. **Question:** *What is the definition of the term “repair?”*
8. **Question:** *Will the same device that detected the leak be needed to confirm the repair (e.g., If a camera IDs the leak, will a camera be required to confirm the repair?)?*

Response: The term “repair” means that equipment is adjusted or otherwise altered to eliminate a leak so that the leak can no longer be detected.

If the leak is detected during an AVO inspection, which is required under GP-5 to be performed on a monthly basis,, the leak will be considered repaired when the leak can no longer be detected during an AVO inspection after the leak has been repaired.

If the leak is detected using a FLIR camera, which is required to be used on a quarterly basis by GP-5, as an alternative to FLIR camera verification, a leak is considered repaired if there is no bubbling at the leak interface using soap solution bubble test as specified in EPA Method 21 or using any other method approved by the Department.

9. Question: *Is leak repair required within 15 calendar days or 15 business days?*

Response: As required by GP-5, if any leak is detected, the owner or operator of the facility must repair the leak as expeditiously as practicable but no later than 15 calendar days after the leak is detected except as provided by 40 CFR § 60.482-9.

10. Question: *Is a still FLIR image of the leaking component required for compliance demonstration?*

Response: Yes. The image of a leaking component with component name, ID, and printed date is required.

11. Question: *Is a “still” FLIR image of the non-leaking (fixed) component required?*

Response: Yes. The image with printed date will demonstrate compliance with the repair within 15 days after the leak was detected.

12. Question: *Is there a ‘blanket’ exemption from LDAR requirements on all components of safety equipment/systems (ex. fire valves, ESD systems, PRVs)? Any event such as a release from a Pressure Relief Valve (PRV) or regulator, is not a leak?*

Response: A release from any equipment or component designed by the manufacturer to protect the equipment, controller, personnel, to prevent ground water contamination, gas migration, or an emergency situation is also not considered a leak. However, the emissions from such releases must be accounted for during the annual inventory reporting required under 25 Pa. Code Chapter 135 (relating to reporting of sources).

13. Question: *Please specify the start date for the required monthly Audi, Visual, Olfactory (AVO) inspections. For example, the quarterly FLIR camera inspections must begin “Within 180 calendar days after the initial startup of a source”. No such language is provided for the AVOs. Are they required to begin upon startup?*

Response: Yes. AVO must be performed within 30 days of commencement of operation of a source.

14. Question: *Are AVO inspections required to begin upon completion of the first FLIR inspection?*

Response: No. AVO must be performed within 30 days of commencement of operation of a source. However, the FLIR inspection must be performed within 180 days of commencement of operation of a source.

15. Question: *Many owners and operators cannot afford to purchase a FLIR camera, so they rent them periodically from a vendor or may contract out the work to a third party. If a FLIR camera is not available for use (ex. due to monetary or availability restrictions) to follow-up on a leak that is found during a FLIR inspection, can delay of repair and/or delay of 'documenting' the repair be justified?*

Ex. a company may rent a camera to perform the inspection quarterly, but may not be able to retain it for two (2) weeks after while repairs are being conducted. This does not mean that the leak was not fixed within the 15 day window just that it was infeasible for the operator to hold onto the camera for two weeks.

Response: The delay of repair may be requested in accordance with Section H Condition 3 (as provided in 40 CFR 60.482), not because of unavailability of FLIR camera. As an alternative to FLIR camera verification, a leak is considered repaired if there is no bubbling at leak interface using soap solution bubble test as specified in EPA Method 21 or using any other method approved by the Department.

16. Question: *Some fugitive sources are required to have a different work practice standard than LDAR, such as open ended lines. Should industry assume the work practice standard requirement takes precedence over an LDAR program?*

Response: Open ended lines are not leaks or fugitive emission sources. They are planned venting and the owner or operator must notify the Department prior to such venting. In addition, the owner /operator must record the emissions as a result of venting and account the emissions towards 12-months rolling emissions.

17. Question: *For existing facilities which receive a GP-5 authorization, when do new requirements such as AVO monitoring have to be in place?*

Response: For existing facilities which receive a GP-5 authorization, AVO inspection must begin within 30-days and monthly thereafter (assuming sources at existing facility are operating) the date of authorization to use GP-5.

Turbines:

18. Question: *Is the GP-5 applicable to the installation and operation of a natural gas-fired turbine used in conjunction with a waste heat recovery system?*

Response: Any turbine with heat recovery can be authorized by DEP under GP-5 if the turbine meets the conditions/requirements specified in Section C (Requirements for Natural Gas-fired Simple Cycle Gas Turbines) of GP-5.

Engines:

19. Question: *Is GP-5 applicable to natural gas-fired emergency engines?*

Response: As indicated in the Applicability/Scope Section (Section A, Condition 2) of GP-5, the conditions in GP-5 are applicable to any natural gas-fired spark ignition internal combustion engine installed at a natural gas compression and/or processing minor facility. The exceptions to this condition are engines used as a “peak shaving engine generator,” a source participating in an Emergency and Economic Load Response Program, and engines installed at natural gas transmission stations. The engines used as a “peak shaving engine generator” or a source participating in an Emergency and Economic Load Response Program, and engines installed at natural gas transmission stations need a plan approval (See Section A, Condition 4: Prohibited Use of GP-5) unless exempted under Air Quality Permit Exemption List (Document No. 275-2101-003), Section 127.14(a)(8) Exemptions, Category No. 6. All emissions including leaks from the facility must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

20. Question: *Does the company need a certification from the engine manufacturer?*

Response: GP-5 does not require an owner or operator to obtain a certification from the engine manufacturer. However, the owner or operator must demonstrate compliance with applicable requirements within 180 days after initial startup of the engine as required under Section A, Condition 22 of GP-5. In addition to GP-5 requirements, the company is required to meet all applicable federal requirements for the engine pursuant to Section A, Condition 23 of the General Permit. All emissions, including leaks from the facility, must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

21. Question: *Is periodic monitoring using a portable gas analyzer required if the engine is operated less than 2500 hours?*

Response: Section B, Condition 4 of GP-5 delineates the performance testing requirements for engines. If the engine is rated less than or equal to 500 brake horsepower (bhp) (Condition 4.a), vendor guarantees or data from Department-approved testing conducted within 12 months on an identical

engine for Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), and Non-Methane Hydrocarbon (NMHC) or Non-Methane, Non-Ethane Hydrocarbon (NMNEHC) shall be sufficient to verify emissions rates. However, the Department may require additional information to verify emission rates. If the engine is rated greater than 500 bhp, then initial testing is required within 180 days after initial startup (Section 4.b) and subsequent testing is required after every 2500 hours of operation (Condition 4.c), not 2500 hours of operation per year. Therefore, the engine is not required to be tested for NO_x and CO emissions using a portable gas analyzer if it operates less than 2500 hours. Periodic monitoring using a portable gas analyzer is required after the engine has operated for 2500 hours cumulatively.

22. Question: *If a compressor station is previously authorized under an earlier versions of the GP-5 and is located at a well pad, can the renewal application be authorized under the February 2013 GP-5 (current GP-5)? If the renewal cannot be authorized under the new GP-5, would a plan approval be required if the engine and other sources do not meet the Exemption 38 criteria?*

Response: An engine or a dehydrator that is located at a well pad and authorized under a previous GP-5 is not eligible to be re-authorized under the current GP-5 if it is not used for mid-stream natural gas operations. Such sources may either be exempt under the Category No. 38 exemption criteria or the owner or operator of the source may need to apply to the appropriate DEP Regional Office for a State-only Operating Permit. In either case, a Plan Approval is not needed.

GP-5 may be authorized by DEP provided the well pad is aggregated as a single facility with mid-stream natural gas compression sources. The gases must be collected and compressed from multiple well pads by the engine located at a well pad.

GP-5 is applicable only to natural gas compression and/or processing facilities that are not major sources.

GP-5 requirements, including quarterly leak detection and repair (LDAR), will be applicable to the entire facility including sources located at the well pad. In such cases, the Category No. 38 exemption criteria will not be applicable to sources located at the well pad because they are covered by GP-5. All emissions, including leaks from the facility, must be summed, on a monthly basis, to document that the facility continues to be a minor facility on a 12-month rolling basis.

23. Question: *A facility's ultimate build out of the compressor station will have about a dozen engines. Can construction continue during the entire 5 year period if there is not an 18-month lapse in construction?*

Response: An owner or operator has a 5-year authorization under GP-5 to install all engines. All engines must be identified in the Application for Authorization to Use the General Plan Approval and General Operating Permit for GP-5. Therefore, the owner or operator must install all engines within the term of the GP-5 authorization. The uninstalled engines will require a new authorization issued by the

Department. Each engine after start-up must comply with the performance testing requirements and other applicable requirements specified in the General Permit.

24. Question: *If the company installs a non-emergency natural gas fired generator at the facility and sells any excess electricity back to the grid, can the generator be authorized under GP-5?*

Response: A natural gas-fired engine generator located at natural gas compression or natural gas processing facility that is used to produce electricity and sell to the grid may not be authorized under GP-5, unless the engine is used to generate power solely to the facility for which the General Permit is authorized.

25. Question: *Can the portable analyzer testing data obtained under Section B, 4 (c) for NOx and CO be used for the Annual Reporting Requirements under Section A Condition 15?*

Response: In accordance with 25 Pa. Code § 135.5, if direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means. Since engines or turbines authorized to operate under GP-5 are required to perform reference method tests for NOx and CO emissions, the periodic monitoring test results for NOx and CO emissions using a portable gas analyzer cannot be used for the Annual Reporting Requirements under Section A, Condition 15 of GP-5. The owner or operator may submit the NOx and CO emissions data obtained using portable gas analyzer only if the reference method test data are not available. The owner or operator must comply with the periodic monitoring requirements for each engine at every 2,500 hours of operation as established in Section B, 4, (c) of the GP-5.

26. Question: *Does Section B, 5 (b) require fuel metering for each engine?*

Response: As stated in Section B, 5 (b) of GP-5, the owner or operator is required to maintain comprehensive accurate records of the amount of each fuel type that is used per month in each engine. Though it is preferable to have independent fuel meter for each engine, the Department may accept the alternative calculations methodology to determine accurately fuel consumption for each engine.

27. Question: *If we have an engine permitted under the GP-5, would we be able to swap that engine out for another GP-5 compliant engine without repermitting? Is there just a change of serial number notification for that situation, or would we have to submit a whole new permit?*

Response: A replacement engine is considered by DEP as a “new source” which requires a new GP-5 authorization issued by the Department. If the owner or operator has identified the backup engines in the application, then new authorization is not required to swap an engine that is permitted and operating under GP-5 or to install any of these backup engines. However, the same backup engines must be covered only in one General Permit application. After the backup engine has been installed, the owner or operator must comply with all applicable requirements established for engines in GP-5.

28. Question: *Does BAT apply to engines under 100 hp (whether emergency or non-emergency)?*

Response: Yes. All engines rated at equal to or less than 100 brake horsepower authorized under GP-5 must comply with emissions limits established in Section B. 2 of GP-5.

29. Question: *What if the emergency (or non-emergency) engine falls into the 'less than 6.6 tpy' exemption – would it still be subject to BAT?*

Response: All emergency and non-emergency engines which are exempted from permitting are not subject to BAT requirements. However, emissions from exempted engines must be included in the facility-wide emissions.

30. Question: *Please confirm that the periodic monitoring is to begin upon completion of (i.e. 2,500 hours after), and not prior to, the initial required source test.*

Response: Periodic monitoring must be performed every 2500 hours of after the initial reference method test.

31. Question: *Does GP-5 require that periodic monitoring protocol needs to be approved by the Department if a different method (i.e., non ASTM D6522) was used? Are the results submitted to the Division of Source testing or the regional office (or both)?*

Response: The protocol approval is not required if the owner/operator uses ASTM D6522 method. The Department's approval of the protocol is needed only when an alternative method will be used by an owner or operator. The results of periodic monitoring tests are required to be submitted to the appropriate DEP Regional Office.

32. Question: *The periodic monitoring can be completed at the operating load the day the monitoring is conducted (i.e., there is no percent load requirement).*

Response: The periodic monitoring can be completed at the operating load the day the monitoring is conducted.

33. Question: *Please provide guidance on 'project abandonment', as it applies to GP-5 facilities. This is a fairly common occurrence due to the dynamic nature of the natural gas industry: Example: A facility is permitted for three (3) engines. The owner/operator submits an application to replace one (1) of the engines with new engine model; the new permit is subsequently issued with two (2) existing engines and one (1) new engine. The project is 'abandoned' and it is the owner/operator's intent to retain the three (3) existing engines, i.e. not replace the one. Technically that third existing engine is no longer in the permit. Is a notice to PADEP sufficient to correct the equipment list on the new permit? Does an RFD need to be submitted?*

Response: GP-5 authorization is limited to sources included in the application seeking authorization to use GP-5. A new authorization for GP-5 will be required for any new engines added or modification made to an authorized engine. It is sufficient to provide a notification to the Department concerning the abandonment of the project if a new authorization is not yet issued for the addition of a new engine or modification of an existing engine.

34. Question: *If there is ONLY an owner / operator (O/O) change at a compressor station that has a GP-5, when they go to get a new GP-5 (as required) do the requirements step up to the most recent version of the GP-5 or can it just be a renewal of the old GP-5. That is, does the O/O change potentially force a change in equipment to meet the newest BAT requirements?*

Response: The BAT requirements established in GP-5 for an existing engine are unchanged while seeking a re-authorization of GP-5 for such sources. However, if an existing engine is modified during re-authorization, the source is subject to the emission standards for a new stationary engine.

35. Question: *If only one engine is to be swapped at a GP-5 compressor station, and if there are multiple engines, and the O/O goes to get a new GP-5 (as you said is required currently) for the one engine, then what sort of GP-5 will they have for the whole facility and the engines that are not to be swapped out? Can there be mix and match of GP-5s at the same facility?*

Response: A new authorization for GP-5 is needed prior to swapping an old engine with a new engine. A single GP-5 authorization may be granted for the existing and newly swapped engine. However, the BAT requirement for the existing engine is unchanged. The new GP-5 authorization will supersede the existing GP-5 authorization. The application should include information for all affected sources at the facility.

36. Question: *Condition 9(b)(ii) allows for variations for maintenance from manufacturer's requirements if approved by the department. Please provide guidance when operation or maintenance variations require approval. To ensure completeness of the request, what standards will be used for this review? Can changes be approved subject to a trial basis?*

Response: Any operation and maintenance activities that are not consistent with the manufacturer's specification, procedures, recommended maintenance practice and schedule will require the Department's approval. The alternative standards proposed by the owner or operator must assure equivalent or better practice or operation and maintenance of air pollution source and/or air pollution control equipment and will be evaluated on a case-by-case basis.

37. Question: *Some facilities currently have both a minor source Plan Approval/Operating Permit and a GP-5 authorization. They may keep both or merge them into one operating permit or GP-5. The permits may contain differing language or older compliance monitoring requirements that add additional or separate programs for the same type of equipment at the same facility. Examples are monitoring JJJ engines for temperature differential or older ZZZZ monitoring standards, or*

visual monitoring, LDAR or malfunction reporting with differing timeframes. Is it possible to accept the more current (normally GP5) requirements as equivalent to permit the same monitoring requirements and compliance time schedules?

Response: The owner or operator must comply with all applicable requirements whether the sources are permitted through a minor source Plan Approval/Operating Permit or authorization to use GP-5. As per Section A, Condition 5 of GP-5, the owner or operator of an existing facility for which a Plan Approval was previously issued shall continue to comply with the BAT requirements established in the previously issued Plan Approval if they are more stringent than the BAT requirements established in GP-5.

Dehydrators:

38. Question: *Please provide guidance on the following GP5 form sections: H3 (DEHYDRATOR AND ASSOCIATED EQUIPMENT INFORMATION) and H4 (FLASH TANK and/or REGENERATOR INFORMATION):*

One interpretation is to utilize H3 for the regenerator vent and H4 for the flash tank vent (flash gas that is not able to be used as reboiler fuel and is vented). Then treat the reboiler heater as an exempt piece of fuel (natural gas) burning equipment, based on heat input rating.

Response: You may copy the SECTION H4 and enter the information about the Regeneration Unit in a separate sheet. Any natural gas fired re-boiler rated at less than 10 MMBtu/hr is exempted from the permitting requirements. However, emissions from re-boilers must be included in the GP-5 Application.

39. Question: *It should be noted that the flash tank is a piece of process equipment whose purpose is to provide fuel to the reboiler. Total VOC emissions from the operation must be reduced by 95%. It does not dictate individual controls. It is correct?*

Response: It is correct. Total VOC emissions from a dehydration unit is required to be controlled to at least 95% including total emissions from the flash tank, still vent and re-boiler.

Flare:

40. Question: *Flares defined in 40 CFR § 60.18 are traditionally open flame devices. For thermal oxidizers, high velocity flares and other combustion devices not meeting the description of 60.18, should the control device be operated as proposed in the application?*

Response: Yes. As indicated in the Implementation Instructions, only flaring operations are required to be designed and operated in accordance with the requirements of 40 CFR § 60.18. Enclosed devices such as thermal oxidizers are not required to comply with the § 60.18 provisions.

Process Heaters:

41. Question: *Are natural gas-fired process heaters less than 10 mm BTU/hour eligible for authorization under the GP-5?*

Response: Yes. Process heaters that are an integral part of the natural gas fractionation and separation process units can be authorized by DEP under GP-5. As specified in Section G of GP-5, the owner or operator of a fractionation unit located at natural gas processing plant shall comply with 40 CFR Part 60, Subpart KKKK – Standards of Performance for Equipment Leaks of VOCs from onshore natural gas processing plants requirements. The emissions from all sources including process heaters at the facility must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

Storage Vessels/Tanks:

42. Question: *Are tanks with Volatile Organic Compounds (VOC) emissions greater than 3 tpy but less than 6 tpy without a flare/combustor as a control eligible for authorization under the GP-5?*

Response: Yes. The tanks are authorized under GP-5 so long as the tanks meet the control requirements of 40 CFR Part 60, Subpart OOOO and the requirements of 25 Pa. Code §§ 127.56 and 127.57.

Plan Approval and Best Available Technology (BAT):

43. Question: *Would the GP-5 limits for the proposed turbines represent BAT or would the plan approval potentially contain limits more stringent than the GP-5 limits?*

44. Question: *If the GP-5 limits could conceptually be accepted as BAT, would the BAT analysis required for the plan approval be a full top down analysis or a simpler analysis proposing the GP-5 limits as BAT?*

45. Question: *Would the tanks included in Plan Approval application be subject to a full top down BAT analysis and potentially require controls such as a flare/combustor?*

Response: The BAT requirements for the air contamination sources included in a Plan Approval Application are determined on a case-by-case basis, which may include a top-down analysis. The analysis would include turbines, tanks, or any other emission source if the Department determined that they were subject to the plan approval requirements. The BAT requirements included in GP-5 generally serve as a “floor” for subsequent case-by-case BAT determinations. Consequently, BAT established through the plan approval process could be more stringent than emission limits specified in GP-5.

Exemption Category No. 38

46. Question: *The Department seems to use the terms “well head” and “well pad” interchangeably. Are these terms the same or are they different?*

Response: The terms “well head” and “well pad” are different terms and are not used interchangeably by DEP. The “well head” refers exclusively to the structural and pressure-containing interface for the drilling and production equipment. It is the “Christmas tree” or assembly of valves, spools and fittings used for a gas well. The “well pad” area not only includes the well head, but also any well pad-specific associated equipment such as dehydration units, storage tanks and booster stations.

47. Question: *The PADEP does not define “well completion”; however the EPA under Subpart OOOO defines well completion as follows:*

Well completion means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

When does the 180- day clock start with regards to well completion? For example, a well completion may require weeks to complete and a well may not be completed to flow back. Therefore, does the 180- day clock start with the initial submission of the Subpart OOOO completion notification, the act of well completion, or once the well is completed.

Also, if the well is shut-in and there is no flowback, is that considered a completion?

Response: The 180- day clock will start after the “well completion” as defined by the EPA in 40 CFR § 60.5430. In other words, the 180-day clock for compliance demonstration purposes begins once flowback starts.

If the well is shut-in prior to flow back begins, the well is not considered as completed.

48. Question: *What is the definition of a site: a single well or a well pad?*

Response: For purposes of the Category No. 38 Exemption, DEP doesn’t use the term “site,” but uses the term “facility.” As defined in 25 Pa. Code § 121.1, the term facility means “an air contamination source or a combination of air contamination sources located on one or more contiguous or adjacent properties and which is owned or operated by the same person under common control.” For GP-5 purposes, a facility may be a single well and associated equipment or multiple wells and associated equipment located at a single well pad or multiple well pads and the associated equipment. Single facility (source) determinations are made on a case-by-case basis using the Department’s “Guidance for Performing Single Stationary Source Determination for Oil and Gas Industries (Document No. 270-

0810-006, October 12, 2012).” Emission thresholds included in the Exemption Category No. 38 are applicable to the facility.

49. Question: *What is the definition of a leak?*

Response: For purposes of the Category No. 38 Exemption, a leak is any gaseous hydrocarbons that can be detected by an optical gas imaging camera such as a FLIR camera or any other approved gas leak detection device.

However, any equipment or component that is designed to protect the equipment or safety of personnel is not considered a “leak.” A release from any equipment or component designed by the manufacturer to protect the equipment, controller, personnel, to prevent ground water contamination, gas migration, or an emergency situation is also not considered a leak.

50. Question: *Is leak repair required within 15 calendar days or 15 business days?*

Response: As required by Air Quality Exemption Category No. 38, leaks are to be repaired no later than 15 calendar days after detection unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks.

51. Question: *Is a still FLIR image of the leaking component required for compliance demonstration?*

Response: Yes. The image of a leaking component with component name, ID, and printed date is required.

52. Question: *Is a “still” FLIR image of the non-leaking (fixed) component required?*

Response: Yes. The image with printed date will demonstrate compliance with the repair within 15 days after the leak was detected.

53. Question: *Is there a ‘blanket’ exemption from LDAR requirements on all components of safety equipment/systems (ex. fire valves, ESD systems, PRVs)? Any event such as a release from a Pressure Relief Valve (PRV) or regulator, is not a leak?*

Response: A release from any equipment or component designed by the manufacturer to protect the equipment, controller, personnel, to prevent ground water contamination, gas migration, or an emergency situation is also not considered a leak. However, the emissions from such releases must be accounted for during the annual inventory reporting required under 25 Pa. Code Chapter 135 (relating to reporting of sources).

54. Question: *If the wet gas wells do not meet the Exemption Category No. 38, 2.7 tpy VOC emission limit, would a Plan Approval prior to drilling and completing wells be required or will the plan approval be only required for our production equipment, such as tanks, engines, heaters, etc.?*

Response: If the VOC emissions from other sources at the facility such as heaters, dehydrators and engines will exceed the exemption threshold of 2.7 tpy (or any other exemption criteria are not achieved), a Plan Approval must be obtained from DEP prior to the commencement of construction of any production equipment.

No DEP authorization is needed for well drilling, completion and work-over activities. No DEP authorization is required if a storage tank or other equipment at the well pad is equipped with VOC emissions controls achieving 95 percent or greater reduction.

In accordance with Exemption Category No. 38 (b) on the Air Quality Permit Exemption List, well drilling, completion and work-over activities are exempted from permitting requirements. VOC exemption criteria do not include emissions from sources that are approved by the Department in Plan Approvals, or the General Plan Approvals/General Operating Permits at the facility and the emissions from sources meeting the exemption criteria in Subparagraphs i, ii, and iv.

55. Question: *Are the emissions from pneumatic devices and venting from annular spaces included in the 2.7 tons of VOCs/yr?*

Response: A release from any equipment or component designed by the manufacturer to protect the equipment, controller, or personnel or to prevent ground water contamination, gas migration, or an emergency situation is not required to be included for the 2.7 tpy VOC emissions threshold. However, these VOC emissions must be included in the annual source report required under 25 Pa. Code § 135.3. The annual source report must be submitted to DEP by March 1st each calendar year for emissions during the previous calendar year.

56. Question: *If the applicant demonstrates that engines located at the well pad meet the criteria under Exemption Category No. 38, are they exempt from plan approval and permitting requirements?*

Response: Sources meeting the Category No. 38 exemption criteria are exempted from both Plan Approval and Operating Permit requirements. Although a source may be exempt from the Plan Approval and Operating Permit requirements of 25 Pa. Code Chapter 127, the source is still subject to all other applicable federal and state air quality regulations including New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPs). The federal NSPS and NESHAP requirements are adopted and incorporated by reference in their entirety in 25 Pa. Code § 127.35 and 25 Pa. Code Chapters 122 and 124, as applicable.

57. Question: *If the applicant cannot demonstrate that engines located at the well pad meet the exemption criteria under Exemption Category No. 38 or prefer authorization for engines at a well pad under GP-5, can authorization be granted under the GP-5?*

Response: If the applicant cannot demonstrate that engines located at the well pad meet the criteria specified in the Category No. 38 Exemption, the applicant must comply with the Plan Approval and Operating Permit requirements under 25 Pa. Code Chapter 127 Subchapter B (relating to plan approval requirements) and/or Subchapter F (relating to operating permit requirements). GP-5 may be authorized by DEP for affected engines located on a well pad if the well pad is aggregated as a single facility with a natural gas compression and/or processing facility. GP-5 is applicable only to natural gas compression and/or processing facilities that are not major sources. In order to use GP-5, the engine must collect and compress natural gas from multiple well pads.

58. Question: *Under the current Exemption Category No. 38, is there any limit/threshold for emissions from sources at the well pad that are not engines?*

Response: Under the previous Exemption Category No. 38, there was no limit/threshold for emissions for sources at the well pad (excluding engines) in order to qualify for exemption. All sources and operations including wells and associated equipment and processes that were located at oil and gas exploration and production facilities, regardless of emissions, were exempted. However, the revised Exemption Category No. 38 specifies criteria and limits the amount of emissions of certain air contaminants.

For example, combined VOC emissions from all sources at the facility must be less than 2.7 tons on a 12-month rolling basis. Further, combined NO_x emissions from the stationary internal combustion engines at wells and wellheads must be less than 100 lbs/hr, 1000 lbs./day, 2.75 tons per ozone season (the period beginning May 1 of each year and ending on Sept. 30 the same year), and 6.6 tpy on a 12-month rolling basis. And, combined hazardous air pollutant (HAP) emissions at the facility must be less than 1,000 lbs of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period.

The exemption emission thresholds do not include emissions from sources that are approved by the Department in Plan Approvals or General Plan Approvals/General Operating Permits at the facility, nor do they include emissions from sources meeting the criteria specified in Subparagraphs i, ii and iv in Exemption Category No. 38.

As required by 25 Pa. Code § 135.3, an owner or operator is required to annually report emissions to DEP from all sources, including exempt sources, located at the facility. The annual source report must be submitted to DEP by March 1st each calendar year for emissions during the preceding calendar year.

- 59. Question:** *If you have an engine that meets the NO_x requirements under exemption #38, but has CO emissions above 20 tpy, is this engine still exempt from plan approval? Is this engine exempt from operating permits?*
- 60. Question:** *Please confirm that a facility that qualifies for the exemption is not required to apply for and obtain an operating permit if emissions exceed the thresholds (in particular CO) on page 16 of the guidance concerning state only operating permits.*

Response: Sources meeting the established permit Exemption Category No. 38 emission thresholds are exempted from Plan Approval and Operating Permit requirements. This exemption would include CO emissions above 20 tpy so long as the established thresholds for NO_x emissions are not exceeded. Although a source may be exempt from the Plan Approval and Operating Permit requirements of Chapter 127, the source is subject to all other applicable air quality regulations, including federal and state requirements such as NSPS and NESHAPs, which are incorporated by reference in the Pennsylvania Code. .

- 61. Question:** *Will the Bureau of Air Quality inspectors handle field enforcement of the exemption or will it be handled by oil and gas inspectors?*

Response: Regional air program staff will handle field enforcement of exemption criteria. However, oil and gas inspectors may gather information for air program staff, which may prompt an investigation by Air Program staff.

- 62. Question:** *Should fugitive emissions be included as part of the 2.7 tpy of VOC if the facility is in an LDAR program?*

Response: Fugitive emissions are not required to be included as part of 2.7 tpy of VOC emissions threshold so long as the facility meets the specified LDAR exemption criteria.

- 63. Question:** *What activity triggers a site to be in the Exemption 38 bucket – wells drilled or spudded after Aug. 10, 2013?*

Response: The Air Quality Permit Exemption List revisions are applicable prospectively. The Category No. 38 exemption was revised on Aug. 10, 2013. The revised criteria for Exemption Category No. 38 are applicable for wells that are spudded or drilled after August 10, 2013 or any sources that commenced construction on or after Aug. 10, 2013.

64. Question: *Please clarify the following reference to 60.18: “Enclosed combustion device including enclosed flare will be used for all permanent flaring operations at a wellhead or facility. These flaring operations will be designed and operated in accordance with the requirements of 40 CFR § 60.18.”*

Response: As per Exemption Category No. 38, iv. D., only “flaring operations” are required to be designed and operated in accordance with the requirements of 40 CFR § 60.18. Other enclosed devices such as thermal oxidizer are not required to comply with the requirements of § 60.18.

65. Question: *Within 60 days after the well is put into production, and annually thereafter, the owner/operator is required to perform a leak detection and repair (LDAR) program that includes either the use of an optical gas imaging camera such as a FLIR camera or a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2% or other leak detection monitoring devices approved by the Department. What is the Department’s interpretation for “well put into production”?*

Response: The term “into production” is not defined in 40 CFR Subpart Part 60, Subpart OOOO. However, according to the definition of flowback, “... [t]he flowback period ends with either well shut in or when the well is producing continuously to the flow line or to a storage vessel for collection, whichever occurs first”.

The Department’s interpretation of “well put into production” means that the well is producing continuously to the flow line or to a storage vessel. Therefore, within 60 calendar days after the well begins producing continuously to the flow line or to a storage vessel for collection, whichever occurs first, and annually thereafter, the owner or operator will be required to perform a leak detection and repair (LDAR) program. No well will be considered to be put “into production” unless gas is flowing into a sales line. For any well owner or operator that is selling gas through temporary equipment designed for flowback, the well shall not be considered to be placed “into production” until the earlier of: (1) 30 days after first gas sales through temporary flowback separator(s), if sales through such temporary equipment continue for more than 30 days; or (2) commencement of gas sales through permanent production separators.

The owners or operators of temporarily shut-in wells are not required to perform a leak detection and repair (LDAR) program until within 60 calendar days after the well is put into production and gas is flowing into a sales line. However, the owner or operator is required to repair the leak as expeditiously as practicable but no later than 15 calendar days after it is detected for temporarily shut-in well.

66. Question: *Where the term "completion" is used, we understand its meaning to be as defined exclusively as in the Definitions section of 40 CFR Part 60, Subpart OOOO.*

Response: Your understanding of the definition of the term, "completion" is correct. Well completion means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

67. Question: *A drilled, but not fractured well, even though capped, is not considered shut in. If a well is drilled, but is not hydraulically fractured until weeks or months later, the well will not be considered as "shut in" for purposes of starting the 180- day CDR period, until after hydraulically fracturing and subsequent flowback. Our rationale is based on the idea that a drilled well, even if capped or blocked off after drilling (the industry does call it shut in, even though temporary), is not going to be a source of fugitives because there is virtually no pressure in the well hole, therefore, there is virtually no potential for leakage. It follows that LDAR would be a waste of time because leaks are not physically possible at that point. The fact is the hydraulically fractured well will have flowback, after which the well is completed.*

Response: The owner or operator is required to demonstrate compliance with the Exemption Category No. 38 criteria using any generally accepted model or calculation methodology within 180 calendar days after the well completion as defined in 40 CFR Part 60, Subpart OOOO or installation of a source. Well completion means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank. The 180 calendar day clock for compliance demonstration begins once flowback starts.

Within 60 calendar days after the well begins producing continuously to the flow line or to a storage vessel for collection, whichever occurs first, and annually thereafter, the owner/operator will be required to perform a leak detection and repair (LDAR) program. No well will be considered to be put "into production" unless gas is flowing into a sales line. For any well which is selling gas through temporary equipment designed for flowback, the well shall not be considered to be placed "into production" until the earlier of: (1) 30 days after first gas sales through temporary flowback separator(s), if sales through such temporary equipment continue for more than 30 days; or (2) commencement of gas sales through permanent production separators.

The owners or operators of temporarily shut-in wells are not required to perform a leak detection and repair (LDAR) program until within 60 calendar days after the well is put into production and gas is flowing into a sales line. However, the owner or operator is required to repair the leak as expeditiously as practicable but no later than 15 calendar days after it is detected for temporarily shut-in well.

68. Question: *Exploratory wells, wildcat wells, or delineation wells will still be subject to LDAR even if those wells are shut in and never deliver gas to gathering. The rationale is that the wells will be pressurized and therefore the equipment/valves that prevent the gas or liquids flow can potentially leak and therefore the well should still be subject to 60 day LDAR, the 180 day CDR and annual LDAR until the well is officially plugged per Oil & Gas standards. Is this correct?*

Response: The owners or operators of Exploratory wells, wildcat wells, or delineation wells as defined in 40 CFR Part 60, Subpart OOOO are not required to submit any compliance demonstration to the Department. However, the owner or operator must comply with all applicable requirements including 40 CFR Part 60, Subpart OOOO requirements.

69. Question: *Even though 38 (b) sources are exempt, do they still have any compliance requirements?*

Response: Yes. The Exemption Category No. 38 (b) criteria are implemented through No. 38(d). This exemption allows owners or operators to commence the activities related to well drilling, completion, and other activities without any Air Quality permitting requirements as long as they comply with all of the Category No. 38 permit exemption criteria. It should be noted that completion activities are subject to 40 CFR Part 60, Subpart OOOO.

70. Question: *40 CFR 89.2 non-road engines CDR's are only required for engines that arrive once the Subpart OOOO well completion is achieved. We do not interpret the CDR reporting to encompass any engines on site pre-completion. We also think there really is no bang for the buck on requiring the registration/listing of these engines. Use of these engines is normally intermittent, short-term and infrequent on well pads. We would be happy to see CDR requirements go away for these engines. It is assumed that non-road engines exempt from 40 CFR 89 will have no compliance reporting requirements under Exemption 38 (even if they are subject to another standard somehow).*

Response: The owner or operator of a non-road engine as defined in 40 CFR § 89.2 is not required to submit a compliance demonstration to the Department for these engines. However, as required by 25 Pa. Code § 135.3, the owner or operator is required to annual report emissions to the DEP for all sources, including exempted sources such as non-road engines, located at the facility. The annual source report must be submitted to DEP by March 1st each calendar year for emissions during the preceding calendar year. The natural gas emissions inventory and instructions are available at the following web site:

<http://www.dep.pa.gov/Business/Air/BAQ/BusinessTopics/Emission/Pages/default.aspx#.VmsZGfMo6Uk>

71. Question: *For satisfying CDR, instead of operators submitting FLIR videos of before and after of leak repairs, we prefer that they have the option of retaining the videos in their files and then just produce the videos on request from the Department. The operators have stated they will provide written and appropriately descriptive documentation, and even still images, of the repair but the videos are unusually large files and sometimes will not even fit on a CD unless they take the time to tediously edit the clip and extract pertinent sections to a separate video file. We believe letting them retain the videos for inspection upon request is reasonable as we don't care to clutter up facility files with CD's, only to have file reviewers ask if they can view the video or copy the CD, etc. This could become cumbersome.*

Response: There is no need for an owner or operator to submit video footage from an imaging camera. The image of a leaking component with component name, ID, and printed date is required. As required by Air Quality Exemption Category No. 38, leaks are to be repaired no later than 15 calendar days after detection unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks. The image of the repaired component with printed date will demonstrate compliance with the repair within 15 days after the leak was detected.

The owner or operator must maintain the record for leaks, repair methods and repair delays for five years and make the records available to the Department upon request.

72. Question: *The CDR Guidance directs the O/O to send Air Quality the 24 hour notice required by Act 13 along with the Subpart OOOO Advance Notice on Flowback. Since the O/O already sends the well completion advance flowback notification required by 40 CFR 60 Subpart OOOO to the regional Air Program, it seems redundant to require the Act 13 notice be also sent. Since the Act 13 Notice is an O&G requirement, it doesn't get sent to the Air Program initially anyway, so we think it should be omitted from our CDR.*

Response: The owner and operator must send a copy of the 24-hour advance notice to the DEP prior to the commencement of each well completion as required under Pennsylvania's Oil and Gas Law (Act 13 of 2012). In accordance with 40 CFR § 60.5420 (a) (2) (ii), notification to the DEP under Act 13 satisfies the notification requirement to EPA established in 40 CFR § 60.5420 (a) (2) (i).

73. Question: *The CDR Guidance directs the O/O to send Air Quality certain reports as part of the CDR. Since these reports will be included with the annual OOOO reporting, we think these particular reports can wait until they are sent in the annual OOOO report. Sending these reports two times seems unnecessary and will ultimately take up precious file space in the file rooms.*

Response: Compliance with Category No. 38 exemption requirements is an applicable State requirement. Therefore, compliance must be demonstrated to DEP within 180 days after the well completion or installation of a source, in addition to the EPA's Annual Reporting requirements.

74. Question: *As I understand from the 40 CFR Subpart OOOO regulations, Notification and Reporting are required to be submitted to the Administrator (PA DEP), except the performance test data that must be reported to EPA's webFIRE database. Please let me know whether any additional notifications or reporting are required to be submitted to the EPA.*

Response: As required by the Exemption Category No. 38, the owner or operator will demonstrate compliance with the exemption criteria using any generally accepted model or calculation methodology within 180 days after the well completion or installation of a source. The owner or operator is also required to comply with all applicable state and federal requirements including notification, recordkeeping, and reporting requirements as specified in 40 CFR Part 60, Subpart OOOO. As stated in the Internal Implementation Instructions for Exemption Category No. 38, this initial compliance demonstration to the Department may be submitted electronically or via regular mail to the appropriate Regional Air Program Manager.

In accordance with 40 CFR § 60.5420, the owner or operator is required to submit all reports required by Subpart OOOO to the DEP. The owner or operator is required to submit results of the performance tests to the EPA by generating the submission package of the test data using the latest version of EPA's Electronic Reporting Tool (ERT) and submitting the package through Compliance and Emissions Data Reporting Interface (CEDRI). The owner or operator is also required to submit test results to the Department.

75. Question: *Is Exemption Category No. 38 applicable to any equipment such as a storage vessel or engine installed at a well pad after the effective date where the well is spud prior to the effective date of Exemption Category No. 38?*

Response: The Exemption Category No.38 criteria for unconventional well, wellhead, or associated equipment, and other sources, were finalized on August 10, 2013 (43 Pa. B. 4661). As a result, any unconventional well, wellhead, or associated equipment constructed after August 10, 2013 is subject to all of the Exemption Category No.38 criteria, including demonstration of compliance. Failure to demonstrate compliance with these criteria may require an owner or operator to apply for and receive a plan approval and operating permit before construction or operation may resume.

As provided in the Exemption Category No. 38, "[t]he owner or operator will also demonstrate compliance with the exemption criteria using any generally accepted model or calculation methodology within 180 days after the well completion or installation of a source."

The applicability date under the exemption criteria applies to the construction of each individual air contamination source, like a well, engine, or dehydration unit, and not to the entire facility, like the well pad. For example, if the owner or operator began actual construction of a well, well head or associated equipment on a well pad prior to August 10, 2013, that well, well head or associated equipment is not subject to the Exemption Category No.38 requirements. However, any well, well head or associated equipment constructed on that well pad after August 10, 2013 is subject to the Exemption Category No.38 criteria.

76. Question: *PADEP's May 8, 2014 letter clearly states that applicability applies to the construction of each individual air contamination source, not the facility. What is commenced construction for a well? Spud Date?*

Response: Commenced construction for a well is the date of commencement of well drilling.

77. Question: *What happens when a new heater, or generator, dehy, is installed at an existing well site not subject to revised Exemption 38. Does that addition trigger applicability to revised Exemption 38? If yes, is it only the new emission source that is required to meet the various conditions of revised Exemption 38?*

Response: The construction or reconstruction of each individual air contamination source, like a well, engine, heater, or dehydration that begins on the existing well pad after August 10, 2013, is subject to all of the criteria specified Exemption Category No. 38 including the compliance demonstration requirement.

Exemption Category No. 38 criteria apply only to the new, reconstructed, or modified air contamination source and not to the entire existing well pad equipment or source that was constructed prior to August 10, 2013.

78. Question: *What if modifications to existing equipment (change a reboiler, change out a burner, etc.) for maintenance and repair purposes are made at an existing well site? Does the modification trigger applicability to revised Exemption 38?*

Response: Exemption Category No. 38 criteria apply to the new, reconstructed, or modified air contamination source and not to the entire existing well pad that was constructed prior to August 10, 2013. The modification of the air contamination source that was constructed prior to August 10, 2013 will be evaluated on a case-by-case basis.

79. Question: *For applicability to revised Exemption 38, instead of using the date that the source commenced construction (was installed), can we use the date that the well/source was "put into production", or startup date since this date in some cases is easier to track? The "put into production" date is the "startup" date, and would be more conservative for determining applicability to new Exemption 38 than the date the well was constructed (completed/drilled) or production equipment set on pad. Can we also use this date to determine when the initial compliance report is due?*

Response: For purposes of determining the applicability of the revised Exemption Category No. 38 (August 2013), the owner or operator must use the date when the well drilling commenced, and not the date when well was "put into production" or startup date. The date when "well put into production" applies for the LDAR requirements established in Exemption Category No. 38 d. i.

80. Question: *Was the Department's intent to conduct an aggregation analysis to apply to the 2.7 tpy, or to apply the 2.7 tpy threshold to each well site?*

Response: If two well sites are determined to be a single source then 2.7 tons VOC per year limit will be applicable to the combined VOC emissions from sources located at both well sites.

81. Question: *If aggregation analysis is required, what sources? Just well sites, or well sites, compressor stations, tank batteries, processing plants, etc.?*

Response: If two well sites or well site and compressor station, processing plant are determined to be a single source then the Aggregation Analysis is required for all sources located at both well sites or all sources at the well site and compressor station and processing plant.

82. Question: *Instead of 12-month rolling average emissions, can we use potential emissions and prove that potential emissions are not exceeded based on the annual actual air emission standards?*

Response: Any requests for alternative way of demonstrating compliance with 12-month rolling average emissions will be evaluated by DEP on a case-by-case basis.

83. Question: *Do maintenance activities, such as liquids unloading and miscellaneous blowdowns, need to be counted toward the 2.7 tpy limit? It is clear that fugitive emissions including pneumatic controllers and annulus venting are not included, per the FAQ document.*

Response: Liquid load out activities are not considered as maintenance activities. VOC emissions from truck load outs are required to comply with 95% VOC control requirement stated in condition d. ii of Exemption Category No. 38. Emissions from truck load outs that are equipped with 95% or greater VOC control system are not accounted toward 2.7 tons per year VOC emissions threshold.

84. Question: *Temporary activities are unconditionally exempt for drilling and completions (and completions include well flowback). However, exploratory well tests are not explicitly addressed. Well tests could occur as part of flowback, or the well could be shut-in, and the well test could occur at a later date. Do well test emissions need to be part of the 2.7 tpy threshold?*

Response: Temporary exploratory well tests are not required to comply with the exemption criteria established in Category No. 38. The owner or operator of Exploratory wells, wildcat wells, or delineation wells as defined in 40 CFR Part 60, Subpart OOOO are not required to submit any compliance demonstration to the Department. However, the owner or operator must comply with all applicable requirements including 40 CFR Part 60, Subpart OOOO requirements.

Emissions from temporary exploratory test wells are not required to be accounted for 2.7 VOC emissions threshold.

85. Question: *What if the tank at a well site is not subject to Subpart OOOO, but is being controlled in order to claim Exemption 38. Do we still have to meet the AVO and Method 21 inspections required by Subpart OOOO for the non-Subpart OOOO storage tank?*

Response: As stated in Exemption Category No. 38 d. i, the owner or operator of a storage tank on a well pad is required to comply with the LDAR requirements using FLIR camera or other leak detection monitoring devices approved by the Department. Any leak detection and repair is required to be performed in accordance with 40 CFR Part 60, Subpart OOOO.

Therefore, even though the storage tank at well site that is not subject to Subpart OOOO, the owner or operator must perform LDAR in accordance with 40 CFR Part 60, Subpart OOOO including annual visual inspections and all other applicable requirements established in Exemption Category No. 38 d. i.

86. Question: *Instead of submitting initial compliance reports sporadically throughout the year, can we request the submission of one annual report or semi-annual reports, for all new well sites or sources claiming Exemption #38?*

Response: The owner or operator must demonstrate compliance with the exemption criteria using any generally accepted model or calculation methodology within 180 days after the well completion or installation of a source. The owner or operator may submit the initial compliance report semi-annually if all sources covered in report satisfy 180 days compliance demonstration requirement.

Miscellaneous Questions on GP-5 and Category No. 38 of Exemption criteria:

87. Question: *Please provide some guidance on the following circumstance: An existing, single gas compressor, located on a separate pad (i.e., not on a well pad), requiring renewal of GP-5.*

Response: An engine that is located at a separate pad and is authorized under a previous GP-5 is not eligible to be re-authorized under the current GP-5 if it is not used for mid-stream natural gas operations. Such an engine may either be exempted under Exemption Category No. 38 or the owner or operator may apply for a State-only Operating Permit. In any event, a Plan Approval is not needed. Any engine associated with a conventional well is exempted from permitting requirements.

GP-5 may be authorized by DEP for engines located at a well pad provided the well pad is aggregated as a single facility with a mid-stream natural gas compression source. The gases must be collected and compressed from multiple well pads by the engine located at a well pad.

GP-5 is applicable only to natural gas compression and/or processing facilities that are not major sources. GP-5 requirements, including quarterly leak detection and repair (LDAR), will be applicable to the entire facility, including sources located at the well pad. Exemption Category No. 38 criteria will not be applicable to sources located at the well pad because the sources are covered by GP-5. All emissions

including leaks from the facility must be summed on a monthly basis to document that the facility continues to be a minor facility on a 12-month rolling basis.

88. Question: *What are the permitting requirements for NO_x emissions from a compressor located at a well pad that exceeds 6.6 TPY?*

Response: If NO_x emissions from a compressor located at a well pad exceed the threshold for Exemption Category No. 38 and the application of the subject compressor is for compression of gases from various well sites, the applicant may apply for authorization to use GP-5. If it is not eligible for a GP-5 authorization, the applicant should apply for a plan approval and a State-only Operating Permit.

GP-5 may be authorized by DEP for affected sources located on a well site if the well pad is aggregated as a single facility with a natural gas compression and/or processing facility. GP-5 is applicable only to natural gas compression and/or processing facilities that are not major sources. All the actual emissions from the facility must be summed to document that the facility continues to be a minor facility on a 12-month rolling basis.

89. Question: *The section which details ‘How to demonstrate compliance with’ the storage tank provisions indicates that ‘Compliance with the exemption criteria for storage vessels may be demonstrated by [...]’ and lists out multiple items. Due to the fact that the language reads ‘may’ and there are multiple compliance-related items, is it up to PADEP to determine whether or not the documentation submitted satisfies the Exemption 38 compliance requirements in the CDR?*

Response: The owner or operator may choose any one of the listed options for compliance demonstration purposes. Implementation Instructions to demonstrate compliance with the Category No. 38 (d. ii) exemption criteria has been clarified in the revised document.

90. Question: *Many owners and operators will choose to purchase a control device whose performance test results have been submitted to the United States Environmental Protection Agency (U.S. EPA) to demonstrate that the device meets the control device requirements of Subpart OOOO (list at <http://www.epa.gov/airquality/oilandgas/pdfs/mantesteddevices.pdf>). Can compliance with this provision be demonstrated by indicating in the CDR that one of the devices on this list marked ‘yes’ (for ‘Control Device Demonstrates Performance Requirements’) is being utilized?*

Response: Yes. The CDR should indicate that a control device included on the EPA list (<http://www.epa.gov/airquality/oilandgas/pdfs/mantesteddevices.pdf>) demonstrates compliance with the 95% VOC reduction requirement.

91. Question: *The section which details ‘Documents Required to be Submitted to the Department to Demonstrate Compliance With the 95% VOC Reduction Requirement From Other Equipment’ indicates that the results of performance tests are required, and references specific provisions for combustion control devices under 40 CFR Part 60. Subpart OOOO. Does other equipment include potentially anything that is controlled by 95% or greater – examples include loading operations, dehydration units, etc.?*

Response: Yes.

92. Question: *Please confirm that for control devices to which the Subpart OOOO performance testing requirements do not apply (ex. a thermal oxidizer for a glycol dehydrator), alternate documentation such as vendor guarantees would be sufficient.*

Response: A control device included on the EPA list (<http://www.epa.gov/airquality/oilandgas/pdfs/man-tested-devices.pdf>) is adequate to demonstrate compliance with the 95% VOC reduction requirement. The Department may consider alternate documentation such as vendor guarantees for demonstration of the 95% VOC reduction requirement.

93. Question: *The Department Response indicates that the 180- day clock for compliance with Exemption 38 begins once flowback starts. This response is consistent with the revised (and previous) Exemption 38 CDR Instructions. Would it make more sense for the 180-day clock to begin once the well is placed ‘into production’? This would be consistent with the requirement for the initial FLIR camera inspection, and also fit more of a ‘completion of construction’ definition for when a compliance clock begins.*

Response: The CDR is due within 180 days after a well completion. All wells are not put into production upon completion. Therefore, LDAR must be performed within 60 days after the well being put into production.

94. Question: *The LDAR program must begin within 60 days of start of production. The Department response indicates that their interpretation of ‘into production’ means that the well is producing into a sales line. The Department seems to indicate that if gas is being sold through temporary equipment (as opposed to permanent GPUs, etc.), the ‘into production’ period begins 30 days after this starts. Also, if gas is being sold through permanent equipment, the well is ‘in production.’ The intent of the last paragraph is unclear – but seems to indicate that if the well is shut in right away, the 60-day clock for LDAR begins once gas starts flowing to sales. Please elaborate.*

Response: As clearly explained in the instruction document, “No well will be considered to be put “into production” unless gas is flowing into a sales line. For any well owner or operator that is selling gas through temporary equipment designed for flowback, the well shall not be considered to be placed “into production” until the earlier of either of the following: (1) 30 days after the first gas sales through

temporary flowback separator(s), if sales through such temporary equipment continue for more than 30 days; or (2) commencement of gas sales through permanent production separators. When wells are temporarily shut-in, an owner or operator is not required to perform a leak detection and repair (LDAR) program until within 60 calendar days after the well is put into production and gas is flowing into a sales line. However, the owner or operator is required to repair a leak from temporarily shut-in wells as expeditiously as practicable, but no later than 15 calendar days after it is detected at a temporarily shut-in well.”

95. Question: *If there is no permitting required, does it fall on the owner/operator to make an aggregation call or it is determined via review of the CDR?*

Response: The owner/operator of well sites is responsible to conduct a single source determination. Such determinations will be reviewed by the Department upon receipt of CDRs.

96. Question: *The Department response seems to indicate that all liquid loading (i.e. regardless of liquid type or quantity) must be controlled.*

Response: Yes. VOC emissions from tanker truck load-outs must be controlled with 95% or greater efficiency unless VOC emissions from all sources at the facility are less than 2.7 tons per year.

97. Question: *Please respond to the following interpretation(s) regarding liquid loading: If the emissions are controlled, they do not count against the 2.7 tpy VOC threshold.*

Response: If VOC emissions from the liquid loading operations are controlled with 95% or greater efficiency, such emissions are not required to be accounted for 2.7 tpy VOC exemption threshold.

98. Question: *Please provide guidance on the following scenario: An existing well pad whose equipment is not subject to the revised Category No 38 exemption requirements (based on date) adds a small compressor engine. This engine is greater than 100 brake horsepower (bhp). The engine’s NOx emissions are less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis. No other changes are made to the site or the existing equipment.*

If the engine were less than 100 bhp, 25 Pa. Code § 127.14(a)(8) Exemption #4 would exempt it, but that engine would have to comply with the new Exemption 38 requirements, as this exemption specifically says to “Note Category 38 addresses oil and gas facilities.”

Response: The 100 bhp exemption threshold is applicable for engines that are located other than natural gas well sites. Category No. 38 of exemption criteria is applicable for sources including internal combustion engines located at well site. Regardless of the size of the engine, in accordance with the Category No. 38 of exemption criteria, an engine at the well site is exempted provided that NOx

emissions from all engines at the well site are less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis.

GP-5 may be authorized by the Department for engines located at a well pad provided the well pad is aggregated as a single facility with mid-stream natural gas compression sources. The gases must be collected and compressed from multiple well pads by the engine(s) located at a well pad.

99. Question: *Can this engine be exempted solely based on Pa. Code § 127.14(a)(8) Exemption #6, based on NOX emissions? This particular exemption makes no mention of Exemption 38, and appears to be a stand-alone exemption. Or would the engine still be subject to the revised Exemption 38 requirements (FLIR inspections, CDR submittal, etc.)?*

Response: An engine at the well site can be exempted solely based on the Category No. 38 of exemption criteria. However, the owner or operator must submit the Compliance Demonstration Report (CDR) including a demonstration of Leak Detection and Repair (LDAR) requirements for all sources at the well site.

100. Question: *Same question as above regarding similar equipment which may fall into other exemption categories that is added to a site whose existing equipment pre-dates Exemption Category No. 38. Example: a natural gas fired heater with a rating of 1.0 MMbtu/hr is swapped out for a new identical heater. This heater is typically categorically exempt outside of Category No. 38 exemption, due to § 127.14(a) Exemption #2.*

Response: The heater at natural gas well site is eligible for exemption if VOC and HAP emissions from all sources (including the new heater) are below exemption thresholds listed in Category No. 38 d. iii.

101. Question: *Can we submit all the certifications for the contractors' entire fleet of tanker trucks at one time and just reference that file when we submit our CDR? If a new truck is added to the fleet we could simply send that certificate to DEP for inclusion in the file.*

Response: The owner or operator may submit certificates for the entire fleet of tanker trucks and reference that file when the CDR is submitted to the appropriate DEP Regional Office. Whenever, a new truck is added to the fleet, the owner or operator must submit to the Department the updated file incorporating certification information for the new truck.

102. Question: *Scenario: A well pad that pre-dates the revised Exemption 38 (all wells and equipment) needs to install a new glycol tank or to replace an existing tank with a new glycol tank. No other changes will be made at the facility. The emissions are minimal (<0.01 tpy VOC/HAP), but the tank is a new installation at an (existing) unconventional well pad. Would the tank alone be subject to the provisions of the revised Category No. 38 exemption criteria?*

Response: Yes, the new glycol tank alone will be subject to the provision of the Category No. 38 of Exemption Criteria.

103. Question: *Does this require the submittal of a Compliance Demonstration Report (CDR) for the tank?*

Response: Yes. The owner or operator must submit the CDR within 180 days of installation of the storage tank.

104. Question: *Does the start of use of the tank trigger the 180-day clock for submittal of the CDR in this case (the wells have long been completed and in production)?*

Response: The owner or operator must submit the CDR to the appropriate DEP Regional Office within 180 days of installation of the storage tank. The owner or operator may request an extension for submission of CDR if the tank remains empty. The 180-day clock will start from the day the fluid will flow into the tank.

105. Question: *The LDAR requirements (FLIR inspections) would not apply if there is no piping in hydrocarbon service hooked up to the tank, correct?*

Response: Correct. The Leak detection and Repair requirements will apply only after the fluid will flow into the tank. As stated in the compliance demonstration instructions, “within 60 calendar days after the well begins producing continuously to the flow line or to a storage vessel for collection, whichever occurs first, and annually thereafter, the owner/operator must perform a leak detection and repair (LDAR) program. No well will be considered to be put “into production” unless gas is flowing into a sales line. For any well owner or operator that is selling gas through temporary equipment designed for flowback, the well shall not be considered to be placed “into production” until the earlier of either of the following: (1) 30 days after the first gas sales through temporary flowback separator(s), if sales through such temporary equipment continue for more than 30 days; or (2) commencement of gas sales through permanent production separators.”

106. Question: *Are there any other exemptions that the tank might fall into that could prevent subjecting it to the Category No. 38 exemption criteria?*

Response: The tank at natural gas well site is exempted from permitting requirements if the total VOC and HAP emissions from all sources at the well site are below exemption thresholds established in the Category No. 38 (d iii) exemption criteria or VOC emission from the tank is controlled at minimum of 95% control efficiency.

107. Question: *Would totes for liquids be exempt in general? These are typically small (ex. 330 gallon) vessels with a structure around them for support (metal cage), which are portable and may be moved from site to site or brought on as needed, or replaced when depleted. They are sometimes hooked up to piping, and sometimes stand alone.*

Response: If the tanks are used to store gas, flowback, produced water, or any other liquid with potential of VOC emissions, they must comply with Category No. 38 exemption criteria.

108. Question: *Please provide some guidance on the following circumstances:
A compressor, wells and gathering lines are all owned and operated by the same company. Gas is being compressed from 100+ conventional gas wells in the area, ranging in distance from 500 feet to 2 miles from compressor.
Is this a correct interpretation of the Department's policy that Department would aggregate emissions from the compressor with any wells located within ¼ mile of the compressor for purposes of a GP-5 permit?*

Response: Single facility (source) determinations are made on a case-by-case basis using DEP's "Guidance for Performing Single Stationary Source Determination for Oil and Gas Industries." As per the guidance, properties located ¼ mile or less apart are considered contiguous or adjacent properties for applicability determinations. Properties located beyond a ¼-mile range may only be considered contiguous or adjacent on a case-by-case basis.

109. Question: *Does the temporary operation period mirror the 180 day time frame in a minor source plan approval?*

Response: There is no temporary (shakedown) period incorporated with GP-5. GP-5 is a Plan Approval and/or Operating Permit, which is valid for 5 years.

110. Question: *Municipal notifications are being used to request denial of permits/permit renewals due to gaps in zoning records for older existing facilities. Please discuss the Department's current approach to these types of situations, including the use of the application shield.*

Response: GP-5 authorizations are granted provided the applicant demonstrates that the facility can comply with all applicable terms and conditions of the General Permit.

111. Question: *The Request for Determination (RFD) process has been used for sources of minor significance. Please discuss where the use of an RFD is appropriate and when a new GP-5 application should be submitted.*

Response: RFD process is designed to determine whether the source is eligible for exemption or an application for an authorization to use GP-5 or a Plan Approval is needed. Emissions from exempted sources must be accounted towards the 12-month rolling sum.