

Q&A FROM AIR PERMITTING OPTIONS FOR THE O&G INDUSTRY WORKSHOP

Below are the questions and answers from part two of our three-part series of oil and gas workshops. If you have any specific questions regarding the workshops, please send them to PermianEE@tceq.texas.gov

Category: LDAR

1. Has the TCEQ developed standard emission reductions that can be applied to fugitive emissions for sites complying with NSPS OOOOa LDAR requirements?
 - No.
2. What % reduction can you claim on fugitives for a facility subject to NSPS OOOOa LDAR?
 - No reduction can be claimed based solely NSPS OOOOa monitoring, however emissions reductions can be claimed for LDAR programs that meet the requirements of an applicable TCEQ LDAR program. For more information, please see the TCEQ Fugitive Guidance Document (<https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/fugitive-guidance.pdf>)
3. Is there a control efficiency reduction for OGI LDAR?
 - No.
4. Does TCEQ ever plan to allow a site to take credit for fugitive emissions reduction when complying with LDAR requirement under NSPS OOOO? Specifically asking for PBR sites.
 - Not at this time.
5. Is LDAR using an optical gas imaging camera acceptable for quarterly LDAR under non-Rule Standard Permit? Is there a control efficiency reduction for OGI LDAR?
 - Optical gas imaging can be used for some LDAR demonstrations in line with the Alternative Work Practice in 40 CFR 60.18, however emissions reductions from LDAR programs in permit registrations must meet the monitoring requirements of the applicable program. For more information, please see Table 9 of the Non-Rule Oil and Gas Standard Permit and the TCEQ Fugitive Guidance Document. (<https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/fugitive-guidance.pdf>)

Category: Tanks/Tank Calculations and Vents

6. Is TCEQ creating a tank emission calculation workbook that will use AP-42, Chapter 7 equations to calculate W&S losses?
 - Yes. A workbook should be available on the TCEQ website in early 2021 that will include AP-42 Chapter 7. In the future, the workbook may be required for project submittal but until that time we will accept other similar systems.
7. If you are preparing an update to a PBR that previously used TANKS 4.09D, do the tank emissions have to be updated using an alternative software other than TANKS 4.09D?
 - Yes. EPA TANKS 4.09D is no longer supported by the EPA and is not being updated to include the revisions to calculation methodologies and supporting information in AP-42 Chapter 7.

- Emissions representations should be based on simulation software that utilizes the updated AP-42 Chapter 7 or calculated using the AP-42 Chapter 7 equations.
8. Is it acceptable for lb/hr tank emissions to be calculated from the annual emissions instead of a possible true maximum hourly emissions?
 - Yes, for claimed and registered PBRs; For certified PBRs and standard permits, the represented emission rates should be reasonably anticipated maximums.
 9. Is it acceptable to use OK's storage tank emissions calculation tool report output for NSR permit applications? It appears the same attendee then posted the following as "questions" see a, b and c below.
 - a. OK DEQ uses AP-42 Chapter 7
 - b. The OK tool is AP 42 updated
 - c. <https://www.deq.ok.gov/air-quality-division/air-permits/storage-tank-emissions-calculation-tool/>
 - The Oklahoma tool has not been formally vetted by the TCEQ, however our understanding is that the Oklahoma tank emission calculation tool is using the updated version of the AP-42 Chapter 7 calculations for emissions estimation. If this tool is used for emission representations, the permit reviewer will need to verify the calculations and may take longer to process. We prefer that the TCEQ calculation tools be used as soon as they are available.
 10. Many sites still use open top water tanks that are shorter than 20 feet. How is vent height applicable to these?
 - 30 TAC §106.352(l)(4) states that "the height of each vent emitting sulfur compounds" shall in no case be less than 20 feet. If the water tank emits any amount of sulfur compounds, the minimum height must be 20 feet.
 11. IF there are no changes to a facility, do we need to go back and update tanks for ALL facilities, or is it just when a change happens at the facility?
 - No. Emissions should only be updated at the next change or modification to the facility
 12. Does the TCEQ calculation workbook include the most recent changes made for tank emission calculations in AP-42?
 - The current version of the Oil and Gas Spreadsheet posted on the TCEQ website does not include AP-42 calculations, only input pages for the results of the calculations. A workbook with the most updated version of AP-42 Ch. 7 calculations and supporting information will be posted by early 2021.
 13. Does TCEQ allow VBE?
 - Yes, but the TCEQ VOC Flash Emission Guidance provides specific ranges of separation characteristics that must be used (https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/guidance_flashemission.pdf)
 14. Why would there be a 20 ft vent height requirement at 0.27 lb/hr sulfur emissions if you need a 20 ft stack height for ANY sulfur emissions?
 - As stated in the rule: "Total emissions of sulfur compounds, excluding sulfur oxides, from all vents shall not exceed 4.0 pounds per hour (lb/hr) and the height of each vent emitting sulfur compounds shall meet the following requirements, except

in no case shall the height be less than 20 feet, where the total emission rate as H₂S, lb/hr, and minimum vent height (feet), and other values may be interpolated:

- (A) 0.27 lb/hr at 20 feet;
- (B) 0.60 lb/hr at 30 feet;
- (C) 1.94 lb/hr at 50 feet;
- (D) 3.00 lb/hr at 60 feet; and
- (E) 4.00 lb/hr at 68 feet

- Stated another way, any vent that emits a sulfur compound must be at least 20 feet. Anything over 0.27 lb/hr must be higher than 20 feet and the height can be determined by using the listed values to interpolate the corresponding height.
15. Why are the vent height requirements of min 20' now required for all OG sites, including sweet? Years ago this requirement was only applicable to sour sites (>24ppmv H₂S). This is confusing for sweet sites, for example, with a 210bbl uncontrolled tank that is only 15' tall. Would seem that >0.27lb/hr level in the rule language would be moot then.
- The minimum vent height requirement has been applicable to all oil and gas sites authorized by this rule and the previous versions of the rule and standard exemption. At no time was the vent height requirement only applicable to sour sites. The provided tank example would not meet the requirements as laid out in the rule.
16. Do vapor combustors have to meet the minimum height requirement of 20 ft when burning H₂S?
- Yes.

Category: Permit Renewals/General APD

17. Standard permits are renewed automatically by TCEQ. Does the non-rule standard permit gets renewed automatically by TCEQ?
- If a site is operating under the current version of the authorization mechanism and no changes have been made to any facilities represented in the current registration, the Standard Permit registration will be automatically renewed.
18. To renew a Non-Rule Standard Permit ("NRSP") do we need to submit a full application, or can it be only a letter if nothing has changed?
- Yes.
19. Does the Non-Rule Standard Permit also has to be renewed every 10 years?
- Yes, per the requirements of 30 TAC §116.604, Standard Permit registrations are only valid for a period of 10-years and must be renewed to continue authorization.
20. Is the 10-year renewal of the Standard Permit a TCEQ obligation or industry must resubmit applications every 10 years?
- Response- Can you clarify--do you mean does the TCEQ re-issue the permit every 10 years whether or not a renewal application is submitted, or is an operator required to submit a permit renewal every 10 years? (Is the 10-year renewal of the Standard Permit a TCEQ obligation or industry must resubmit applications every 10 years?)
 - I would like clarification on both. What means and what are the implications of having to renew every 10 years for each SP and NRSP.
 - Standard Permit registrations under the 30 TAC §116.620 and the NRSP require renewal 10-years after issuance per the requirements of 30 TAC §116.604. If the site

is operating under the current version of the authorization mechanism and no changes have been made to any facilities represented in the current registration, the renewal can be automatically renewed. If there have been any changes at the site, a renewal with updated representations will need to be submitted through STEERS.

21. Is there a time period to roll a PBR into an NSR?

- PBR incorporation into NSR permits does not have a specified time frame, the length of the review time depends on the completeness of the application. The PBR should be incorporated at the next amendment or renewal. For more information on this topic, see the memo "Permits by Rule and Standard Permit Consolidation Into Permits (Revised) - September 2006"
(https://www.tceq.texas.gov/assets/public/permitting/air/memos/pbr_spc06.pdf).

22. Under a non-sour PBR site that submits an APD-Cert form, is the lb/hr an emission limit?

- Yes, if short-term emissions are included in the representations made in the AP-CERT submittal, they become part of the federally enforceable representations.

23. On an APD-Cert for a PBR site, can we only certify the tpy and not the lb/hr if there are no lb/hr requirements?

- Yes.

24. What if a piece of equipment does not meet the representations but the equipment remains under the emission limit for that piece of equipment?

- If a facility is not included in the representations, it is not included in the authorization.

25. For a facility already permitted under a Standard permit or NSR, what PBR should be used for temporary equipment, flares, engines, compressors, etc.

- If an NSR authorized facility is an Oil and Gas facility or the Site is operating under the 30 TAC §116.620 Standard Permit, PBR 30 TAC §106.359 or PBR 30 TAC §106.263 can be used for temporary equipment associated with MSS. For a Site operating under the Non-Rule Standard Permit, the temporary equipment should be included in the registration and cannot be authorized via PBR.

26. Is a skim oil tank at a SWD authorized under the 351 or does it require a separate authorization?

- If the skim oil tanks are only associated with the saltwater disposal operation, they can be included in the authorization under 30 TAC §106.351. Skim oil tanks associated with production should be authorized under 30 TAC §106.352 or standard permit.

27. Can 106.512 be used for authorizing a natural gas fired or diesel non-emergency generator?

- PBR 30 TAC §106.512 can authorize engines or turbines used to generate electricity exclusively for on-site use at locations where the electric grid is not readily available or where it is not economically feasible to connect to the electric grid. Please refer to the memo "Electric Generators Under Permits By Rule" (October 2006).
(https://www.tceq.texas.gov/assets/public/permitting/air/memos/egens_pbr10_06.pdf)

28. Can a portable engine be claimed under 30 TAC §106.511 if it is located at a NRSP site?

- Maybe. If the portable operation is involved with the normal operation or MSS of the site authorized under the NRSP, it should be included in the NRSP registration. NRSP

- (c)(2) outlines specific situations where an updated registration may not be required, however records must be maintained. If the portable engine is being authorized for a stand-alone operation that does not create dependency with the facilities authorized under the NRSP, it can be authorized through PBR 30 TAC §106.511
29. If painting activities was not represented in the NRSP, and if painting occurs, is this a deviation?
- Painting activities must be authorized. You can find more compliance information for surface coating on our website.
(<https://www.tceq.texas.gov/assistance/industry/sc>)
30. Which rule states the speciation requirement?
- The speciation requirement for the 30 TAC §116.620 Standard Permit is found in the Applicability requirements for Standard Permits in 30 TAC §116.610(a)(1).
31. For a 30 TAC §106.492 flare continuous pilot. Does instrumentation for recording a continuous pilot have to be used? Does Vmax require a flow meter or is calculated value acceptable?
- A continuous pilot should be monitored with a thermocouple or other equivalent device as specified in 40 CFR §60.18, per the TCEQ Control Device Requirement Charts
(<https://www.tceq.texas.gov/assets/public/permitting/air/NewSourceReview/oilgas/control-dev-reqch.pdf>).
 - The maximum flare tip velocity can be calculated using process knowledge and maintained with compliance records. Compliance with 40 CFR §60.18 should be demonstrated in compliance with the regulation requirements.
 - For more information about specific monitoring requirements, we recommend contacting your TCEQ Regional Office.
32. What are the permitting requirements for a cogeneration plant in a non-attainment area?
- We recommend contacting the TCEQ for further information. General questions for the Air Permits Division can be sent to airperm@tceq.texas.gov.
33. If a NRSP site has a temporary generator (only a few days) is a registration required if the emissions for that one day is under the emission listed in the NRSP (c)(B)(i)?
- If the temporary generator meets the requirements of NRSP (c)(B)(i), the registration is not required to be updated however the facility should be incorporated into the registration at the next revision or certification.

Sampling/Emission Calculations

34. 60.18 does a GC or calorimeter have to be used or is process knowledge acceptable for BTU value of flared material?
- Compliance with 40 CFR §60.18 should be demonstrated in compliance with the regulation requirements. The heat input of waste gas streams can be determined using process knowledge for permit registration, however certified representations are federally enforceable.
35. For permitting, is there a limit for how recent a site-specific sample must be or is it just a recommendation?
- There is no specific timeline in TCEQ guidance for a site-specific sample, but generally a sample less than two years old is preferred. Keep in mind that samples taken for RRC reporting and compliance can be used for TCEQ representations.

36. Under the NRSP, when determining compliance with hourly limits, are steady state and low-pressure periodic emissions compared to the hourly limits separately? Or must they first be summed and then compared to the hourly limits?
- The limits for steady-state or <30 psig periodic releases and ≥ 30 psig periodic releases in NRSP requirement (h)(3) are assessed separately. The annual emissions should be evaluated cumulatively.
37. With respect to a oil and gas sample analysis age, for a permit revision that is submitted after 3 years of the initial application can we use the same oil and gas analysis as the original application if the revision is only for an equipment (eg; engines, heaters, etc) addition and we did not add any new wells to the tank battery or streams and hence did not change the composition of the oil or gas?
- For a Site using a representative analysis for emissions representations, updating to a representative analysis less than 3-years old or a site-specific analysis would be preferred however if the new equipment is not using field gas and the previous representations for all other equipment handling materials from the site is not changing, a new analysis would not be required. For a site-specific sample, this would be okay.
38. Under the NRSP, if site-wide steady state benzene emissions are 4 lb//hr and if site-wide benzene low pressure periodic emissions are 5 lb/hr, does this meet NRSP hourly limits?
- Based on the information provided, yes, the emission limits in NRSP(h)(3) would be met, however an impacts review would be required per NRSP(k).
39. To my understanding, you mentioned" TCEQ have >24 ppm of H₂S for sour, but RRC have >100 pm of H₂S for sour. Why can't both regulatory companies be on the same page or have same limits to avoid confusion for oil and gas operators?
- The TCEQ's definition of sour gas is in 30 TAC §101.1(96) which specifies the threshold as natural gas containing more than 1.5 grains of hydrogen sulfide per 100 cubic feet, which equates to about 24-ppm H₂S. This is the representation we are required to use because it is in our agency rules.

EE/Upset/MSS

40. The TCEQ oil and gas emissions spreadsheet states that Planned MSS may be authorized if "the root cause of the emissions is from a planned maintenance activity." This seems to be in conflict with this presentation that states AOS is NOT MSS even if the root cause of the emissions is from MSS. Please explain in more detail.
- An Alternate Operating Scenario allows for a site to continue operating when outside of normal operations if the representations are included in the authorization. This diversion from normal operations can be a result of MSS, however the company is representing that the operation is normal operation. Routine MSS activities occur outside of normal operations, however are planned and predictable and should be authorized via the appropriate mechanism. Upsets and unplanned MSS events occur due to deviations from normal operation. For more information on this topic, we recommend taking a look at the recent OCE presentations available on the TCEQ website.
41. Last week during the emissions event workshop, it was mentioned that emission events that are considered not to be upset events and are now considered to be a routine event should be included in the MSS permit. If a company exceeds the 25 tpy of VOC for routine unscheduled maintenance emissions then how should a customer go about getting authorization for these emissions?

- Planned MSS should be permitted, and if estimated emissions are over the 30 TAC §106.4(a)(1) allowable of 25-tpy of VOCs, then the company will need to consider a standard permit or NSR authorization mechanism for the Site.

42. Under the PBR or NRSP, does upset flaring events that are handled with excess emissions reporting have to meet 60.18?

- The requirements of 40 CFR §60.18 are applicable to the flare during normal operation. Deviations from normal operation should be included in the upset representations.
- In order to obtain the affirmative defense criteria found in 30 TAC §101.222(b), one of the requirements is that the “air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emission and reducing the number of emissions events.” Good practice for minimizing emissions from a flare would mean that, if possible, the requirements of 40 CFR 60.18 would be met. Another of the criteria requires that “the amount and duration of the unauthorized emissions and any bypass of pollution control equipment were minimized and all possible steps were taken to minimize the impact of the unauthorized emission on ambient air quality.” If a flare is not able to meet 40 CFR 60.18 during an event, the owner/operator must be able to show what actions were taken to reduce the amount of emissions and the duration of the event. This would include what steps were taken to get the flare back into compliance with 40 CFR 60.18 as soon as possible.