

# **FREQUENTLY ASKED QUESTIONS**

## **Environmental Protection Performance Standards at Oil and Gas Well Sites**

Waste Management – Control and Storage

(§§ 78a.56 – 78a.59c)

*The purpose of this Frequently Asked Questions (FAQ) document is to highlight changes in and address questions about the new regulations. This FAQ should not be used in lieu of reference to the 2012 Oil and Gas Act, 25 Pa.Code Chapter 78a and other applicable laws and regulations. The answers outlined in this FAQ are intended to supplement existing requirements. Nothing in this document shall affect statutory or regulatory requirements.*

*This document is not an adjudication or a regulation. There is no intent on the part of the Department to give this document that weight or deference. The Department may supplement or amend this document at any time as necessary without notice.*

### **§ 78a.56 Temporary Storage**

- 1) What is the tank specific approval and siting approval process for the installation of a modular aboveground storage structure? What is the turnaround time on this approval? The operator may not know the exact siting location on the well pad or tank pad; this may not allow for locational adjust. Why is siting approval even needed?

New approvals of modular aboveground storage structures will be completed through the submission of an OG-71A. That particular modular aboveground storage structure will then be added to the Department of Environmental Protection's (DEP) approved list. As an initial matter, DEP notes that approval for a modular aboveground storage structure is only required if the structure exceeds 20,000 gallons capacity. 25 Pa.Code § 78a.56(a)(2).

For siting approval, the operator will submit either an OG-71A for a modular aboveground storage tank not on the approved list or an OG-71B for one that is on the approved list. This submission will also need to include information such as a site map showing the proposed location of the structures, a topographic map of the well site, soil types, any type of geotechnical testing that has been performed, etc. If this information is already contained in an ESCGP-2 on file, then the operator only needs to submit the OG-71A or OG-71B.

The turnaround time for siting approval can vary depending upon the complexity of the location, the completeness of submitted material, and if

the storage structure has been previously approved. For minimal turnaround times, operators should plan ahead when designing their site layouts to allow for locational adjusts.

Some of these aboveground modular structures can be relatively large. Even if the engineering structure of the tank has been approved, DEP still needs to look at the siting of that tank at a particular site to make sure there are no site structural stability concerns, such as landslide or stabilization issues, which have been experienced on unconventional well sites in Pennsylvania. For example, is a 5,000,000-gallon storage structure being placed on the fill slope in a soil area where the site was not engineered to bear that type of load? (posted 10/19/16)

- 2) What is the approval timeframe for an OG-71?

OG-71A approval timeframes vary from one OG-71A to the next, depending on the complexity of the submittal. It is recommended to contact DEP's District Office where the well site is located as early as possible to provide expeditious review of the application. (posted 10/19/16)

- 3) Please clarify whether mobile storage tanks that are complete – that is, are not assembled on site but are moved from site to site and linked together as needed, (for example, multiple 21,000-gallon storage tanks manifolded together) - are not modular aboveground storage structures and therefore are exempt from siting approval.

This is correct. Tanks that are complete and structurally intact, are moved from site to site, and require only hooking up or manifolded together at the destination location are not required to be approved through an OG-71. Modular aboveground storage structures are storage structures that are taken to a site in multiple sections, assembled on site, used for well development activities, disassembled, and taken to the next site. (posted 10/19/16)

- 4) If the modular aboveground storage structure is to hold freshwater only to be used for storage for fracturing then, is it necessary to get siting approval and adhere to the same criteria as those storing produced fluids?

No. "Modular aboveground storage structure" is defined in section 78a.1 as "An aboveground structure **used to store wastewater...**" (emphasis added). (posted 10/19/16)

- 5) Will all open top tanks that are on average 500bbl (around 21,000 gallons) need to be registered as an aboveground storage tank?

No, as long as the open top tank is not a "modular aboveground storage structure" as defined in section 78a.1. The exemptions under the Storage

Tank and Spill Prevention Act and the tank regulations in Chapter 245 still apply even after these regulations take effect. The only thing that would need to be done in terms of open top tanks used for temporary storage is what is in section 78a.56, and that section does not require registration of any aboveground storage tanks. Open top storage tanks may not be used for the storage of brine or other fluids produced during operation of a well, as outlined in section 78a.57(a). (posted 10/19/16)

- 6) Does the DEP have a list of approved modular aboveground storage structures? If not, when will the review/approval process start?

A list will be populated on DEP's website of approved modular aboveground storage structures as they are reviewed and approved. The list will be made available and updated as structures are approved. (posted 10/19/16)

- 7) Modular aboveground storage structures - Will specific manufacturer names and model numbers be included on the list or will the list only be inclusive of general tank types/styles?

This will be similar to the way liners are currently handled. Listings will be specific to the manufacturer and model number of the modular aboveground storage structure. The goal of DEP's website is to include the documentation from the actual approval that shows the specifications and other technical specs of that storage structure, process, or procedure. (posted 10/19/16)

- 8) What are some examples of "reasonable measures to prevent unauthorized access by third parties" for both temporary tanks and permanent production storage tanks at an unmanned site? Please also provide some examples of what would not be acceptable?

This is an equipment specific, site-specific question. Operators need to assess their operations and equipment to take appropriate steps to prevent unauthorized access by third parties at their particular sites. Generally, these measures would include those that prevent simple interaction with tanks, valves, ladders, etc. This could include fencing, locks, bull plugs, removable handles, retractable ladders, etc. DEP will work with vendors and operators to come up with further examples, but it will not be an exhaustive list, allowing operators the flexibility to handle situations at their sites as appropriate. (posted 10/19/16)

- 9) Who at the Department will be approving above ground storage structures and what qualifications do they have to approve such structures? Example: Will the reviewer be a P.E.?

DEP will ensure that the review and approval process will be conducted by staff members who have the proper education, training, and qualifications to evaluate the structural strength and stability of modular aboveground storage structures by examination of the submitted technical specifications. (posted 10/19/16)

- 10) If a storage tank meets the requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200, does this meet the signage requirements of section 78a.56(a)(8)?

Yes, if a tank or other approved storage structure is marked identifying its contents and, if applicable, displays an appropriate warning for the contained material, it meets the requirement of section 78a.56(a)(8). (posted 10/19/16)

### **§ 78a.57 Control, Storage, Disposal of Production Fluid**

- 11) Would you describe at degree of "deficiency" in tank inspection requires notification to the Department?

When substantial modifications are required to correct the deficiency or the deficiency is significant enough that failure could cause a spill or release, notification to DEP should occur. The Department will be releasing additional guidance on this in the future as specific situations are addressed. (posted 10/19/16)

- 12) What are some examples of "reasonable measures to prevent unauthorized access by third parties" for both temporary tanks and permanent production storage tanks at an unmanned site? Please also provide some examples of what would not be acceptable?

This is an equipment specific, site-specific question. Operators need to assess their operations and equipment to take appropriate steps to prevent unauthorized access by third parties at their particular sites. Generally, these measures would include those that prevent simple interaction with tanks, valves, ladders, etc. This could include fencing, locks, bull plugs, removable handles, retractable ladders, etc. DEP will work with vendors and operators to come up with further examples, but it will not be an exhaustive list to allow operators flexibility to handle situations that apply at their sites. (posted 10/19/16)

- 13) Does secondary containment as outlined in sections 78a.57(c) and 78a.58(c) need to meet the  $1 \times 10^{-10}$  cm/sec permeability standard specified in section 78a.64a(c)(2)?

REVIEW Secondary containment is defined under section 78a.1 Definitions. It is defined as "A physical barrier specifically designed to

minimize releases into the environment of regulated substances from primary containment or well development pipelines, to prevent comingling of incompatible released regulated substances and to minimize the area of potential contamination, to the extent practicable.” (posted 10/19/16)

14) Does corrosion inspection require internal inspection as in API standard?

Section 3218.4(b) of the 2012 Oil and Gas Act and section 78a.57(f) require that all new, refurbished or replaced aboveground storage tanks that store brine or other production fluids must meet the corrosion requirements found under [sections 245.531 – 245.534 \(relating to corrosion and deterioration prevention\)](#), with the exception of use of Department-certified inspectors to inspect interior linings.

Also, section 3218.4(b) and section 78a.57(g) require that all new, refurbished or replaced underground storage tanks that store brine or other production fluids must meet the corrosion requirements found under [section 245.432 \(relating to operation and maintenance including corrosion protection\)](#), with the exception of use of Department-certified inspectors to inspect interior linings.

Those sections reference API standards relating to corrosion prevention, and include internal inspection of tank liners as appropriate. (posted 10/19/16)

15) If the tank is on a platform in secondary containment at a production facility, will we need to have a certified inspector?

Section 78a.57(i) requires operators to inspect tanks storing brine or other production fluids at least once per calendar month. Assuming this is an aboveground production storage tank, part of the inspection is to verify the tank is meeting the corrosion requirements found in sections 245.531 – 245.534. Department-certified inspectors are only required to be used for inspections of storage tanks regulated under the Storage Tank and Spill Prevention Act. (posted 10/19/16)

## **§ 78a.58 Onsite Processing**

16) How are you defining “processing” under section 78a.58?

Process or processing is defined in section 78a.1 as having “the same meaning as “processing” as defined in section 103 of the Solid Waste Management Act (35 P.S. § 6018.103).” section 3273.1(a) of the 2012 Oil and Gas Act ties onsite management of waste back to the Solid Waste Management Act, so it was important to make sure the definitions and requirements were aligned between the two statutes. This was also why

the exemptions under section 78a.58(b) were added. Arguably, those exemptions could be included under the Solid Waste Management Act definition of “processing,” and DEP felt those actions were appropriate to be allowed without prior Department approval. (posted 10/19/16)

- 17) Is water simply flowing through a sand filter and separator considered processed by rule?

Water simply flowing through a sand filter or separator is not considered to be “processing.” However, if any type of coagulate or other chemical additive is added, then this would be considered “processing” and require prior DEP approval. (posted 10/19/16)

- 18) If waste leaving a site is going to a facility outside of PA for treatment or disposal, is characterization required? If yes, can you explain why characterization is required?

Yes, the Waste Management Program requires the characterization for the transportation of the waste within Pennsylvania borders under the residual waste regulations. (posted 10/19/16)

### **§ 78a.59a Impoundment Embankments**

- 19) Is there a minimum height requirement in which the embankment standards outlined in section 78a.59a apply? Some impoundments are dug into the ground and may have a minimal embankment height.

No, but subsection (b) allows for the owner or operator to request approval from DEP to deviate from the requirements in section 78a.59b if the request can demonstrate that the alternate practice provides superior or equivalent protection to the requirements of this section. (posted 10/19/16)

- 20) Is an individual NPDES permit required for the discharge of a well development underdrain?

No, as long as the outfall of the underdrain does not discharge directly to surface waters of the Commonwealth. (posted 10/19/16)

### **§ 78a.59b Well Development Impoundments**

- 21) When can operators begin registering fresh water impoundments?

Section 78a.59b(b) requires registration of well development impoundments to be completed by December 7, 2016. The Department has developed a [well development impoundment registration form](#). This

form is available on the Department's eLibrary and operators may submit it at any time. (posted 10/19/16)

- 22) For existing well development impoundments which were built per DEP construction standards and permitted accordingly, is it necessary to update these impoundments to well development impoundment standards, including geotech standards, or can these be grandfathered?

For existing well development impoundments, the operator must register the location of the well development impoundment by December 7, 2016 and certify that the well development impoundment meets the requirements under subsections (d), (e) and (h). This is accomplished by the operator marking off check boxes on the form certifying to the best of their knowledge these requirements have been met. Department staff will follow up with field inspections to verify this information. Any well development impoundment found to be deficient must be upgraded to meet these requirements or be restored in accordance with subsection (g) by October 8, 2017.

Existing well development impoundments do not have to meet the geotechnical requirements under section 78a.59a, but any well development impoundments constructed after the effective date of the regulation will have to meet those requirements, as outlined in section 78a.59b(a). (posted 10/19/16)

- 23) What are the requirements for existing fresh water (fresh only) impoundments that service multiple pads?

The requirements are exactly the same as for well developments impoundments that only service one well pad. Each time a well development impoundment is used for stimulation of a well, that information will be reported on the completion report for that particular well. (posted 10/19/16)

- 24) In many cases, multiple well development impoundments are used to complete a hydraulic fracture. Will multiple impoundments be able to be reported electronically?

For construction and reporting purposes, each well development will be registered individually.

For wells being stimulated using water from multiple well development impoundments, the completion report allows for operators to report such information. (posted 10/19/16)

- 25) Is there a specific fencing requirement for freshwater impoundments (for example, must it be 6-foot chain link or is cattle style fencing acceptable)?

No, there are no specific fencing requirements. This is being left up to the discretion of the operator to address their particular sites, as this can affect the type of fencing that could be installed. The regulation requires the operator to make a reasonable effort in their selection of fencing. Both types of fencing listed in the question would be likely be adequate if appropriate for the location of the well development impoundment. If the operator is not sure, the operator should contact the Oil and Gas District Office where the well development impoundment is located for compliance assistance. (posted 10/19/16)

- 26) Do soil scientists need to be a registered professional soil scientist? If not, what constitutes qualified?

No, they do not have to be registered as professional soil scientists. section 78a.59b(f) states a soil scientist or similarly trained person using accepted and documented scientific methods shall make the determination of the seasonal high groundwater table. The qualifications of the person making the determination will be submitted along with the determination. The Department plans on offering training in the future to allow operator employees to become qualified. (posted 10/19/16)

- 27) How is water usage from well development impoundments that is not for fracturing – for example, dust suppression or hydroseeding – going to be captured to show usage of the water impoundment? These uses are not reported on a completion report. (posted 10/19/16)

The important piece for the Department's purposes involving tracking the use of well development impoundments has to do with restoration. The key for completion reports is that the well development impoundment has been used in the last 9 months to hydraulically fracture a well and not so much in tracking what each drop of water in a well development impoundment has been used for at the well site. The well site restoration requirements are tied to the final use of the impoundment for hydraulic fracturing (section 78a.59b(g)). Uses such as those included in the question do not extend this requirement, although the operator may apply for a twenty-four-month extension of the restoration requirement in accordance with section 78a.65(c). (posted 10/19/16)

- 28) Does freshwater need to be tested prior to storage in an impoundment?

Normal water withdrawal sources listed in a Water Management Plan do not need to be tested prior to storage in a well development impoundment.



This does not include mine influenced water, which does require a specific approval under subsection (h). (posted 10/19/16)

### **§ 78a.59c Centralized Impoundments**

- 29) What time frame is anticipated to transfer from a centralized to a solid waste facility, and is waste prepared to have discussions with operators ready to engage in conversation?

The Waste Management Program is examining this very closely right now. If an operator wants to have this discussion, both the Waste Management and Oil and Gas Programs will be in contact with those operators prior to the effective date of the rulemaking. While the decision to seek the residual waste management permit must be made by April 8, 2017, but there are three years to actually get it done. The Waste Management and Oil and Gas programs has been contacting each individual centralized impoundment owner and operator to outline the operational and permitting requirements for existing centralized impoundments. (posted 10/19/16)