

FREQUENTLY ASKED QUESTIONS

Environmental Protection Performance Standards at Oil and Gas Well Sites

Emergency Response, Secondary Containment,
Reporting/Remediating Spills & Releases

(§§ 78a.55, 78a.64, 78a.64a, 78a.66)

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.55. Control and disposal planning; emergency response for unconventional wells.

- 1) Is fresh water released to a well pad considered a “regulated substance?”

Please refer to the definition of “regulated substance” in Section 103 of Act 2 (35 P.S. § 6062.103). In general, freshwater is not a regulated substance when spilled on a well pad. However there could be site specific circumstances where fresh water released to a well pad impacts waters of the Commonwealth or poses a threat of pollution to waters of the Commonwealth. Fresh water could constitute a “regulated substance” in certain volume and if it contains chlorine, additives, algacides or other polluttional constituents. This would require reporting under Section 91.33.

- 2) Will the Department be creating a new guidance document for preparing PPC plans? The current guidance document the regulation references (the EERP Guidance Document) does not fit well with the temporary construction activity associated with O&G operations.

DEP's policy, *Guidelines for the Development and Implementation of Environmental Emergency Response Plans*, Document No. 400-2200-001, provides appropriate guidance for Preparedness, Prevention, and Contingency (PPC) planning during oil and gas operations construction activity. DEP is currently in the process of developing a guidance document that integrates the various planning document requirements in a single source of information. Providing guidance for standardization of Emergency Response Plan (ERP) formats, maps, and symbols is critical for emergency responders during incidents. In addition, DEP is working with the Pennsylvania Emergency Management Agency (PEMA) on a new guidance to implement the emergency response plan (ERP) requirements.

- 3) Who at PEMA should be contacted and what is the number?

The 24/7 PEMA number for reporting incidents is **800 424 7362**

- 4) Does the requirement for implementing National Incident Management System (NIMS) in the event of a well emergency require the use of the FEMA ICS team forms?

In accordance with section 78a.55(i)(5)(i), the ERP shall incorporate NIMS planning standards, including the use of the Incident Command System (ICS), Incident Action Planning and Common Communications Plans. Any forms used under NIMS should be used as appropriate. DEP realizes that some forms may not be suitable for direct use for unconventional emergency response plans/incidents and customizing forms may be necessary.

- 5) Does DEP expect that universal symbols will be defined and required for the ER plans/diagrams?

Map symbols will be evaluated during development of ERP guidance to be issued by DEP in coordination with PEMA. While these items may not necessarily be “required” in the final guidance document, they will be strongly recommended as universal symbols in order to prevent any confusion during an emergency situation. DEP and PEMA will see public comment on this this matter.

- 6) Are PPC Plans required for producing well locations?

In accordance with Section 78a.55(b), a well operator shall prepare and develop a site specific PPC plan prior to storing, using, or generating regulated substances on a well site from the drilling, alteration, production, plugging or other activity associated with a gas well or transporting those regulated substances to, on or from a well site.

- 7) What is the timeline for an operator to provide a copy of the PPC plan once requested by the landowner?

Under Section 78a.55(f), “a copy of the well operator’s PPC plan shall be provided to the Department, the Fish and Boat Commission or the landowner upon request and shall be available at the site during drilling and completion activities for review.” There is no specified timeline, operators should provide PPC copy to landowner in a timely manner.

- 8) Can landowner also request a copy of the ERP?

A landowner can” request” a copy of the ERP, however there are no specific requirements under Section 78a.55 that require the operator to provide it upon request. A copy of the ERP shall be available at the well site during all phases of operation. ERPs are also available for review on DEP’s Oil and Gas Mapping application. A learning tutorial on the mapping application is available at <https://www.youtube.com/watch?v=OAAKQnOh048>

- 9) Is not providing a copy of the PPC plan to the parties listed in section 78a.55(f) a violation?

Yes, the violation would be failure to provide a copy of PPC plan as required under section 78a.55(f).

- 10) How often does DEP request copies of PPC plans?

Requests for PPC plans will vary according to inspector preference, site-specific situations, compliance reviews, permit compliance issues, spills, fires, accidents, and complaints.

- 11) How is compliance with PPC plans determined on an ongoing basis?

Operators need to prepare, develop, and implement site specific PPC plan prior to storing, using, or generating regulated substances on a well site from the drilling, alteration, production, plugging, or other activity associated with a gas well or transporting those regulated substances to, on or from a well site. A PPC plan developed in conformance with the *Guidelines for the Development and Implementation of Environmental Emergency Response Plans*, Document No. 400-2200-001, as amended and updated, will be deemed to meet the requirements of this section and be considered "in compliance." An inspector may review the operator's implementation of the PPC plan to ensure that the plan is being implemented properly, and require corrective action if needed.

- 12) Please clarify the requirements for reporting a spill versus requirements for documenting spills in a PPC plan.

The Department's *Guidelines for the Development and Implementation of Environmental Emergency Response Plans*, Document No. 400-2200-001, contains a section relating to "Pollution Incident History." This section suggests documenting spills as follows:

List the previous pollution incidents, the date, the material or waste spilled, approximate amount spilled, environmental damage, and action taken to prevent a recurrence.

An important criteria in determining the effectiveness of the plan and its implementation is the history of incidents. A history of no incidents suggests that the practices and procedures at the site are effective. For a site with a history of incidents, it is important to investigate the reasons for the spills and the response of the company in minimizing the potential for their recurrence.

Reporting any spill under section 78a.66 is dependent upon real and potential threat to public health and safety, environmental impact to waters of the Commonwealth, materials and volume involved, spill site location, circumstance, and immediate remedial action taken.

- 13) Does "regulated substance" include technologically enhanced naturally occurring radioactive materials (TENORM) radioactive substances?

Yes.

§ 78a.64. Secondary containment around oil and condensate tanks.

- 1) What is the definition of “harmful discharge” as used in section 78a.64(d)(1)?

Drainage of secondary containment is acceptable if the accumulation of liquids in secondary containment consists of “only precipitation directly to the secondary containment and drainage will not cause a harmful discharge or result in a sheen.” Examples of a harmful discharge could be situations where the result of the discharge is an issue such as erosion, staining, stressed or dead vegetation, excessive pooling, safety issues, and interference with existing land uses.

§ 78a.64a. Secondary containment.

- 1) What is the secondary containment coefficient of permeability?

In accordance with section 78a.64a(c)(2), secondary containment must have coefficient of permeability no greater than 1×10^{-10} cm/sec.

- 2) Will the secondary containment resistance requirement need to follow the same ASTM standard for permeation of chemical protective clothing?

Section 78a64a(c)(3) provides:

The physical and chemical characteristics of all liners, coatings or other materials used as part of the secondary containment, that could potentially come into direct contact with regulated substances being stored, must be compatible with the regulated substance and be resistant to physical, chemical and other failure during handling, installation and use. Liner compatibility shall satisfy compatibility test methods as approved by the Department.

While liner compatibility may be demonstrated by satisfying American Society for Testing and Materials (ASTM) Method D5747 Compatibility Test for Wastes and Membrane Liners, ASTM D543 wet patch at 140°F for 72 hours, Section 78a.64a(d)(3) accommodates other tests methods to demonstrate liner compatibility.)

- 3) In Section 78a.64a there is a permeability standard for secondary containment on well sites. What is the difference between this section and what is described as secondary containment in Sections 78a.57 and 78a.58?

The requirements of Section 78a.64a apply to the secondary containment requirements in Sections 78a.57 and 78a.58.

- 4) What does a record of repair for secondary containment look like?

Section 78a.64a(e) requires operators to maintain records of repairs until the well site is restored. A record of repair may be a signed and dated narrative

description of repair work or a contractor receipt, photo, completed work order, or an inspection report.

- 5) Does an operator need to keep records of weekly secondary containment inspections? Maintaining containment inspections at the actual well site may not be practical, can these be provided to Department upon request for unmanned sites?

Yes, Section 78a.64a(e) states that “The well operator shall maintain records of any repairs until the well site is restored.” Under Section 78a.64a(h), “Inspection reports and maintenance records shall be available at the well site for review by the Department.”

- 6) Will the DEP develop a weekly inspection checklist or guidance for secondary containment inspections like they did for monthly tank inspections?

Site-specific situations and broad range of secondary containment applications along with wide variations of containing/use/transfer of regulated substances on the well site create too many variables for standard checklists at this time.

- 7) Why are tanks inspected monthly and secondary containment weekly?

Tanks and secondary containment serve different purposes on a well site and different inspection timeframes are appropriate. Tanks provide primary storage of regulated substances designed for long-term operation with use with secondary containment. For these reasons, monthly inspections are appropriate for tanks. Secondary containment is designed to minimize releases into the environment from primary containment, to prevent comingling of incompatible released regulated substances and to minimize the area of potential contamination, to the extent practicable. Secondary containment must also be drained of precipitation in accordance with Section 78a.64a(d). Because of these functions and requirements for containment, it is appropriate to inspect secondary containment weekly, at a “minimum.”

- 8) Are dry materials subject to the requirements of secondary containment? For example the dry additives used as part of the mud system.

Yes, Section 78a.64a(b) requires “All regulated substances, including solid wastes and other regulated substances in equipment or vehicles, shall be managed within secondary containment.” The states of fluids/solids as regulated substances are irrelevant.

- 9) How is “equipment required for drilling or completing a well” defined for the purposes of Section 78a.64a(c)(1)? For example, drill pipe, casing, tubing, etc.

Equipment is not a defined term, but it is defined in the context of this provision. It is equipment used for any phase of drilling, casing, cementing, hydraulic fracturing or flowback operations brought on a well site and when regulated substances including drilling, mud additives, hydraulic oil, diesel fuel, hydraulic fracturing additives, or flowback are brought onto or generated at the well site.

§ 78a.66. Reporting and remediating spills and releases.

- 1) Can you please confirm the statement “spills on containment are no longer reportable?”

Section 78a.66(b)(1)(ii) requires an operator or other responsible party to report “[a] spill or release of 5 gallons or more of a regulated substance over a 24-hour period that is not completely contained by secondary containment.” Accordingly, spills of regulated substances that are completely contained within secondary containment are not required to be reported. However, there may be situations where completely contained spills on secondary containment threaten to pollute Waters of the Commonwealth and must be reported in accordance with Section 78a.66(b)(1)(i) in the manner required by Section 91.33.

- 2) Does Section 78a.66 apply to spills or releases on public roads?

Section 78a.66(a) states that the Section “applies to reporting and remediating spills or releases of regulated substances on or adjacent to well sites and access roads.” Section 78a.66 does not apply to public roads. Responsibilities for transportation incidents and spills on public roads have many potential liability issues and reporting obligations which are case specific.

- 3) If you have a spill of 42 gallons or less that does not pollute or threaten waters of the Commonwealth that is remediated by visibly removing the impacted soil, and you inform the Department of this, do you still have the coordination with the Department’s Environmental Cleanup and Brownfields (ECB) program?

No, if the spill was completely visually remediated there is no coordination with ECB. However, ECB could potentially be involved for spill cases involving 42 gallons or less where for example there was a slow leak over a long time period and/or spill migrated through highly permeable soils making a total visual cleanup unachievable.

- 4) With regard to clean ups at well site – is an OG-71 approval necessary for rig pit and tank cleaning when decontaminating to move the rig or equipment from one pad to another? This is all done on containment, and with use of super suckers and vac trucks to contain the fluid.

No, routine well site cleaning/decontamination operations that are properly contained within secondary containment with complete waste recovery and off-site disposal do not typically require an OG71 for onsite processing approval.

- 5) Is the Alternative Method under Act 2 still an option?

No. The provisions in Section 78a.66 replace DEP’s *Addressing Spills and Releases at Oil & Gas Well Sites or Access Roads*, Technical Guidance, No. 800-5000-001, for unconventional operations including the alternative remediation option for unconventional well sites and access roads.

- 6) Does the Act 2 reference in Section 78a.66 mean that you must go through the complete Act 2 administrative process? And will the operator ultimately get a release of liability? It makes sense to require public notice if an operator is remediating a spill or release to the

site-specific standard, but if the operator is using the statewide health standard or the background standard, then why is public notice needed?

Yes. For spills or releases to the ground of greater than or equal to 42 gallons or that pollute or threaten to pollute waters of the Commonwealth, the operator or other responsible person must demonstrate attainment of one or more of the standards established by Act 2 and Chapter 250 (relating to administration of land recycling program). All three standards contain administrative and public notice requirements. Public notification to the municipality and the public via the newspaper notice, and publication in the Pennsylvania Bulletin are not required for background or Statewide health standard remediations if the final report demonstrating attainment of the standard is submitted within 90 days of the release.

The ultimate release of liability will be dependent upon demonstration of attainment of Act 2 Standards, including supporting documentation of any required reports such as initial report, interim remedial action, site characterization, remedial action plan and final remedial action completion report. Act 2 provides a procedure to remediate and receive relief of environmental liability relating to a release of a regulated substance addressed under various environmental statutes, including the Clean Streams Law, the Solid Waste Management Act, and the Hazardous Sites Cleanup Act. Many substances that are spilled at sites regulated under the Oil and Gas Act are regulated as waste under the Solid Waste Management Act or as pollutants under the Clean Streams Law (see, for example, Sections 3273 and 3273.1 of the 2012 Oil and Gas Act, 35 Pa.C.S. §§ 3273, 3273.1). If these wastes and pollutants are regulated substances as defined under Act 2 and have contaminated soils and groundwater, they must be addressed under Act 2.

- 7) Has the Department given any thought to issuing a technical guidance document or updated oil/gas spill policy to ensure transparency and that expectations and obligations are being met within this regulatory section?

The Department will review and update the *Addressing Spills and Releases at Oil & Gas Well Sites or Access Roads*, as necessary to properly reflect the regulations in Chapter 78a. The scope of Section 78a.66 applies to reporting and remediating spills or releases of regulated substances on or adjacent to well sites and access roads.

- 8) Are there any circumstances where confirmation samples will be required for releases that are less than 42 gallons that do not threaten waters of the Commonwealth?

There may be circumstances where confirmation samples may be required for these types of spills. If a spill cannot be adequately remediated by using visual clean up option (for example production brine spill into saturated soil conditions) confirmation for proper remediation and managing the impacted soil in accordance with the Department's regulations may require confirmation samples and/or field instrument testing.

- 9) Which Department program will be responsible for oversight of section 78a.66 clean-ups? Oil and Gas or ECB?

Oversight will depend on complexity of site-specific remediation situations along with program staffing.

- 10) Do all spills greater than 42 gallons (including those not threatening the “waters of the Commonwealth”) fall into the releases requiring Act 2 participation?

Yes, in accordance with Section 78a.66(c)(2), for spills or releases to the ground of greater than or equal to 42 gallons, the operator or other responsible person must demonstrate attainment of one or more of the standards established by Act 2 and Chapter 250 (relating to administration of land recycling program) and the other provisions in this section. Act 2 provides a procedure to remediate and receive relief of environmental liability relating to a release of a regulated substance addressed under various environmental statutes, including the Clean Streams Law, the Solid Waste Management Act, and the Hazardous Sites Cleanup Act. Many substances that are spilled at sites regulated under the 2012 Oil and Gas Act are regulated as waste under the Solid Waste Management Act or as pollutants under the Clean Streams Law (see, for example, sections 3273 and 3273.1 of the 2012 Oil and Gas Act, 35 Pa.C.S. §§ 3273, 3273.1). If these wastes and pollutants are regulated substances as defined under Act 2 and have contaminated soils and groundwater, they must be addressed under Act 2.

- 11) If meeting Act 2 standards, will an operator obtain relief from further remediation liability protection for the site?

Yes.

- 12) Please clarify that only the Act 2 cleanup standards have to be met? Will cleanup reports be required to be published in the PA Bulletin? Will public notice be required?

Yes. For spills or releases to the ground of greater than or equal to 42 gallons or that pollute or threaten to pollute waters of the Commonwealth, the operator or other responsible person must demonstrate attainment of one or more of the standards established by Act 2 and Chapter 250 (relating to administration of land recycling program). Demonstration of attainment of an Act 2 standard consists of both a substantive demonstration and meeting procedural requirements, including public notice. Accomplishing one or more of the Act 2 standards within 90 days waives the requirement for public notification.

- 13) Does Section 78a.66 apply to compressor stations or pipelines?

No. This Section only applies to reporting and remediating spills or releases of regulated substances on or adjacent to well sites and access roads.

- 14) Is groundwater considered to be waters of Commonwealth for reporting purposes?

Yes, this would include springs, wells, shallow and deep groundwater including seasonal high groundwater. Section 1 of the Clean Streams Law defines “waters of the Commonwealth” as:

Waters of the Commonwealth shall be construed to include any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

15) What are examples of “threatening to pollute waters of the Commonwealth?”

There are many examples where “threats” to pollution of the waters of the Commonwealth can occur. Some typical examples in oil and gas industry are:

- Spills into soils that can easily migrate into streams, wetlands, shallow and seasonal high groundwater, surface channels and ditches and/or where weather conditions could accelerate the threat circumstance.
- Primary and secondary containment issues where a serious threat can occur from overflows, integrity issues or damage to containment.
- Transportation and fluid pumping incidents (vehicles and well development pipelines) where an accident or integrity issue threatens waterways.
- Well fire and/or well control issues where firefighting runoff and/or uncontrolled release of well fluids threaten waterways.

Section 78a.66(b)(1)(i) does reflect some existing uncertainty in the explicit boundaries to the requirements for spill and release reporting under section 91.33. See, e.g., *Milco Industries, Inc., and Municipal Authority of the Town of Bloomsburg v. Commonwealth of Pennsylvania, Department of Environmental Protection* (2002 Pa.Envirn. LEXIS 51), where the Environmental Hearing Board considered the Department’s authority to issue a Clean Streams Law order to address a “danger of pollution”:

The Department has the authority to issue an order to a person if it finds that that person’s activity creates a danger of pollution of the waters of the Commonwealth. 35 P.S. § 691.402(a). The Department has the authority to issue an order requiring a person to cease operations if a condition existing in or on the operation is creating a danger of pollution of the waters of the Commonwealth. 35 P.S. § 691.610.

Neither party has referred us to any case law elaborating upon exactly what constitutes a “danger” of water pollution. Milco argues convincingly that the term should not include every conceivable circumstance in which a creative mind can conjure up a set of circumstances that could theoretically cause pollution. At the other extreme, a “danger” is obviously something less than actual, proven pollution. The appropriate definition doubtless lies somewhere between these two extremes, and whether a “danger” exists sufficient to support an order will undoubtedly require a case-by-case analysis. Beyond these truisms, a more refined analysis will need to await an adjudication by the full Board following the hearing on the merits.

16) If there is a less than 5 gallon spill near the edge of the well pad not on containment but that does not pollute the waters of the Commonwealth or threaten to pollute the waters of the Commonwealth, then there is no need for Section 91.33(a) or 78a.66(b)(1)(i) notification, correct?

Yes.