DEPARTMENT OF ENVIRONMENTAL PROTECTION Bureau of Oil and Gas Planning and Program Management

DOCUMENT NUMBER: 550-5000-001

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TITLE: Addressing Spills and Releases from Oil & Gas Wells and

Related Operations Well Sites.

AUTHORITY: The Act of February 15, 2012, P.L. ____, No. 13 (58 Pa.C.S. §§

2301 – 3504) (Act 13 §§ 3201-3274 (relating to Oil and Gas

Development) (2012 Oil and Gas Act), The Clean Streams Law (35 P.S. §§ 691.1 – 691.1001), The Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), and The Pennsylvania Land Recycling and Environmental Remediation Standards Act (35 P.S.

§§ 6026.101 – 6026.908) (Act 2).

POLICY: Persons responsible for spills and/or releases fromat oil and to

oiland gas well operations sites should follow this policy in responding to those spills and releases to ensure protection of

people and the environment.

PURPOSE: This policy is developed to facilitate a consistent and uniform

general response by those working in and for the oil and gas

industry to respond to spills and releases related to at oil and gas well

operationssites regulated by the Pennsylvania Department of

Environmental Protection (DEP or Department).

APPLICABILITY: This policy applies to any and all parties responsible for spills and

releases from at oil and gas wells and related operations well sites.

DISCLAIMER: The policies and procedures outlined in this guidance are intended

to supplement existing requirements. Nothing in the policies or

procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in these policies that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from

this policy statement if circumstances warrant.

PAGE LENGTH: 8 pages

Scope

The policy outlined in this document applies to Oil & Gas operations taking place on well sites, as defined in 25 Pa.Code § 78.1 ("the area occupied by the equipment or facilities necessary for or incidental to the drilling, production or plugging of a well."). Spills and releases at other facilities or transportation spills and releases are not addressed under this policy.

<u>Preparing for and Responding to a Spill or Release Related to at an Oil & Gas Operations Well Site</u>

Before generating waste, oil and gas well operators are required by 25 Pa.Code § 78.55 (relating to control and disposal plans) to prepare and implement a control and disposal plan under 25 Pa.Code § 91.34 (relating to activities utilizing pollutants). The plan must address the control and disposal of residual waste, drill cuttings and fluids, including tophole water, brines, drilling fluids, additives, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids and drill cuttings from the drilling, alteration, production, plugging or other activity associated with oil and gas wells. The plan must identify the control and disposal methods and practices to be utilized by the well operator and be consistent with the 2012 Oil and Gas Act, The Clean Streams Law, the Solid Waste Management Act and 25 Pa. Code Chapter 78.

Operators can meet these regulatory requirements and the requirements under 25 Pa.Code § 78.55 and 25 Pa.Code § 91.34 by developing and implementing a site specific Preparedness, Prevention and Contingency (PPC) Plan. A PPC Plan should identify the appropriate regional office contact numbers and procedures for reporting spills, releases and all emergencies to DEP as well as the immediate response and clean-up activities associated with such spills, releases and emergencies.

Copies of the plan(s) must:

- 1) Be provided to the Department upon request,
- 2) Be available at the well site during drilling, completion and alteration activities for use by those involved in those activities and for review by DEP, and
- 3) Include a list of emergency contact phone numbers for the area in which the well site is located. The emergency contact phone numbers must be prominently displayed at the well site during drilling, completion or alteration activities.

Regional Emergency Contact Numbers and the counties they serve are attached in Appendix A. For detailed information on preparation of PPC Plans, one can refer to the Department's technical guidance document, *Guidelines for the Development and Implementation of Environmental Emergency Response Plans* (document number 400-2200-001). In addition, the Department also has prepared Oil & Gas industry-specific PPC Plan guidance in Chapter 4 of the Department's *Oil and Gas Operator's Manual* (document number 550-0300-001).

In accordance with the control and disposal plan and/or PPC plan, the person applicable law and regulations, the person responsible (Responsible Party) for a spill or release of a substance that creates a danger of pollution of the waters of the Commonwealth or damage to property (hereinafter "pollutional substance") shouldmust take immediate action to:

- 1) Cease the spill or release of the pollutional substance,
- 2) Prevent migration of the pollutional substance from the site of the spill or release, and
- 3) Prevent the pollutional substance from reaching or impacting surface water or groundwater, and
- 4) If reasonably possible to do so, notify known downstream users of the waters.

Reporting a Spill or Release Related to at an Oil & Gas Operations Well Site

What Spills to Report to the Department

According to 25 Pa.Code §§ 91.33(a) and 78.66(a), a spill or release causing or threatening pollution of the waters of this Commonwealth must be reported to the Department. Pursuant to 25 Pa.Code § 78.66(b), if a reportable release of brine on or into the ground occurs at the well site, the Responsible Partyresponsible party must notify the Department. 25 Pa.Code § 78.1 defines "reportable release of brine" as the spilling, leaking, emitting, discharging, escaping or disposing of either:

- 1) More than 5 gallons of brine within a 24-hour period on or into the ground at the well site where the total dissolved solids (TDS) concentration of the brine is equal or greater than 10,000 mg/L, or
- 2) More than 15 gallons of brine within a 24-hour period on or into the ground at the well site where the TDS concentration of the brine is less than 10,000 mg/L.

DueIn addition to these explicit mandatory reporting requirements, due to the requirements in § 78.66 and § 91.33 and the difficulty in ascertaining the exact quantity of a spill or release or the danger such a spill or release poses to the environment, the Responsible Party shouldDepartment recommends that the responsible party report a spill or release of any pollutional substancemore than five gallons of a pollutional substance to the surface of the ground over twenty-four hours to the Department-regardless of the quantity spilled.

For this policy, a "person" is any legal entity that is recognized by law with rights or duties.

² The term "pollutional substance" is used in 25 Pa.Code § 78.66 and so is retained in this Policy. However, the Department interprets the terms to have the same meaning as "regulated substance," as that term is defined in section 103 of Act 2, 35 P.S. § 6026.103.

IfSimilarly, if secondary containment is in place when the spill or release occurs on a well site, including a competent well pad liner,³ the Department recommends but does not require that the Responsible Partyresponsible party should notify the Department if the quantity of material exceeds 42 gallons. If the secondary containment is sufficient to contain the spill or release, the Responsible Partyresponsible party should remove the spilled/released material from the secondary containment within 24 hours. Once removed, the Responsible Partyresponsible party should must properly store and/or dispose of the material in accordance with applicable law and regulations in a timely manner as required by those laws and regulations.

When to Notify the Department

The Responsible Partyresponsible party must immediately notify the Department of a spill or release causing or threatening pollution of waters of this Commonwealth in accordance with 25 Pa.Code §§ 91.33(a) and 78.66(a). Pursuant to 25 Pa.Code § 78.66(b), the Responsible Partyresponsible party must notify the Department of a reportable release of brine as soon as practicable, but no later than two hours after detecting or discovering the release. These are mandatory reporting requirements.

The Responsible Partyresponsible party should report all other spills and releases, including spills and releases related to transportation of oil and gas wastes, at well sites to the Department within two hours, if practicable, after detecting or discovering the spill or release. The Department requests that the Responsible Partyresponsible party report spills to secondary containment to the Department as soon as practicable. These are recommended practices to avoid operator liability for failure to properly report spills and releases, but are not requirements.

How to Notify the Department

The Responsible Party shouldresponsible party must notify the Department by telephone. The Department does not consider voicemail messages; (unless left at a contact number identified in Appendix A or the 1-800 number below), e-mails or text messages to fulfill this notification requirement. Mailed letters or communications from a third party also are not acceptable forms of initial notification.

Spills and releases should be reported to the appropriate DEP Regional Office listed in Appendix A. The Department also maintains a statewide toll free number: 1-800-541-2050. This number serves as a backup to the regional numbers and also supports a reporting mechanism for people who do not know which regional office is responsible for a particular area.

Responsible <u>Parties parties</u> should be advised that the notification procedures outlined above are in addition to those requirements outlined in <u>the 2012 Oil and Gas Act-13</u>, Solid Waste Management Act, Waste Transportation Safety Act, Clean Streams Law, or other applicable laws

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³ Generally speaking, this means a liner that was professionally installed according to manufacturer's specifications, is structurally sufficient for containing the materials that are used or stored at the well site and compatible with those materials, and, with respect to which, the operator had no actual knowledge of any breach of integrity.

and any related regulations. Under certain circumstances, as specified under applicable law and in accordance with the control and disposal plan and/or PPC plan, the Responsible Partyresponsible party must immediately notify emergency responders (including, but not limited to state or local police and the County emergency management official), federal authorities, other state authorities and downstream users of impacted or threatened waters.

Remediation of a Spill or Release Related to at an Oil & Gas Operations In General Well Site

In General

Remediation of an area affected by a spill or release related to at an oil and gas operations well site is required. Upon confirming that a spill or release has occurred, the responsible party shall immediately initiate interim remedial actions necessary to prevent or address an immediate threat to human health or the environment, including prevention of further migration of pollutional substances. 4

The Responsible Partyresponsible party must remediate the affected area by demonstrating attainment of one of the remediation standards available under the Act 2/Land Recycling Program regulations in Chapter 250 of Title 25 of the Pennsylvania Code; or under the alternative remediation option, meeting all the applicable requirements to demonstrate attainment of one or more of the remediation standards, except the notice, review and fee provisions under Sections 302(e) and/or 303(h)⁵, and Section 703⁶. For remediation purposes, not all regulated substances have a published numericStatewide health standard. In situations where there is no published Statewide health standard for a regulated substance, one of the other standards must be selected for that substance. For example, chlorides have a Statewide health standard for releases to groundwater, but do not have a Statewide health standard for releases in soil. For those chloride releases to soil, either the background or site-specific standard must be achieved in order to demonstrate attainment under Act 2.

The Responsible Partyresponsible party must appropriately remove and dispose of waste from the spill or release.

The Department has the authority to order the Responsible Partyresponsible party to remediate the spill or release utilizing the Act 2-process.². The Department will exercise enforcement discretion and issue such orders where:

⁴ Interim remedial actions are those actions necessary to prevent or address an immediate threat to human health or the environment and may include identifying and mitigating fire, explosion and safety hazards posed by vapors and free product, preventing further migration of the spilled or released material and free product recovery.

⁵ 35 P.S. §§ 6026.302(e), 6026.303(h).

⁶ 35 P.S. § 6026.703.

⁷ 25 Pa. Code § 250.2(b) (relating to application of remediation standards).

- A spill or release poses a substantial threat of harm to the environment or public health or where a Responsible Partyresponsible party demonstrates a lack of intention to appropriately remediate a spill or release; or
- 2) The Responsible Partyresponsible party does not conduct the remediation in accordance with one of the following processes.

Small Spills

For spills of less than 42 gallons at a well site that do not pollute waters of the Commonwealth or threaten pollution of these waters, the Responsible Partyresponsible party should remove the soil visibly impacted by the spill upon discovery of the spill and should dispose of the impacted soil by a method permitted by law. The Responsible Partyresponsible party should notify the Department of its intent to remediate a spill in this manner at the time notification of the spill is made.

Act 2

If the Responsible Party voluntarily chooses to utilizeresponsible party is utilizing Act 2, the Responsible Partyresponsible party should notify the Department of this decision in writing within 15 days of the spill or release. The notification should also include a brief summary of the actions the Responsible Partyresponsible party has taken and intends to take at the site to address the spill or release (e.g., a schedule for site characterization, to the extent known).

The Responsible Partyresponsible party will then be required to follow the administrative process set fortheach applicable provision in Act 2, including publication of submission to DEP of a Notice of Intent to Remediate (NIR) and municipal notification of submission to DEP of a Final Report demonstrating attainment of the selected standard. However, the submission and publication of an NIR and public notification regarding the Final Report are not necessary for cleanups conducted under the Act 2 background or Statewide health standard if the Final Report is submitted to the Department within 90 days of the spill or release. If the Department approves the Final Report, Act 2 provides the Responsible Partyresponsible party relief from cleanup liability for the contamination identified in the site reports submitted to and approved by the Department.

The forms for completing the NIR, Final Report Summary, and examples of the public notice language are available on the Department's website—at http://www.portal.state.pa.us/portal/server.pt?open=514&objID=552033&mode=2..

Alternative **Process**Remediation

Where a Responsible Party does responsible party will not elect to utilize be utilizing Act 2, the Responsible party may remediate a spill or release to either under the background or

⁸ 35 P.S. §§ 6026.302(e) and 6026.303(h).

Statewide health standard in the following manner. A Responsible Party A responsible party utilizing this alternative process remediation option may not use the site-specific standard.

Within 15 days of the spill or release, the Responsible Partyresponsible party should provide a brief written report that includes, to the extent that is available, the following information:

- 1) The pollutional substance involved,
- 2) Where the spill or release occurred,
- 3) The environmental media affected,
- 4) Any impacts to water supplies, buildings or sewersutilities, and
- 5) Interim remedial actions planned, initiated or completed.

The initial report should also include a summary of the actions the Responsible Partyresponsible party intends to take at the site to address the spill or release (e.g., a schedule for site characterization, to the extent known) and the anticipated timeframes within which it expects to take those actions. After the initial report, any new impacts identified or discovered during interim remedial actions or site characterization should also be reported in writing to the Department within 15 days of their discovery.

Within 180 days of the spill or release, the Responsible Partyresponsible party must perform a site characterization to determine the extent and magnitude of the contamination and submit a site characterization report to the appropriate DEP Regional Office outlining the findings. The report should also include discussion on any interim remedial actions taken. This report may be the last report submitted to the Department where interim remedial actions adequately addressmeet all of the spill or releaser equirements of a background and attains an Act 2/or Statewide health standard, except the notice and review provisions.

If the site characterization indicates that the interim remedial actions taken did not adequately address the spill or release to atteinmentmeet all of and/or statewide Statewide health standard, the Responsible Partyexcept the notice and review provisions the responsible party must develop and submit a remedial action plan to the appropriate DEP Regional Office. The plan is due within 45 days of the site characterization.

Once the remedial action plan is implemented, the Responsible Partyresponsible party must submit a remedial action completion report to the appropriate DEP Regional Office. The Department will review the completion report to ensure that the remediation has achieved onemet all the requirements of the three Act 2 standards.background and/or Statewide health standard, except the notice and review provisions. Unless the formal Act 2 process is followedcomplied with in all aspects, relief from liability will not be available to the Responsible Partyresponsible party, property owner or person participating in the cleanup. However, the option of completing the remediation by following the Act 2 process will remainall remaining Act 2 requirements remains available to Responsible Parties who wish to obtain relief from liability under Act 2.

Restoration and Revegetation of Areas Impacted by a Spill or Release Related to at an Oil & Gas Operations Well Site

Any areas impacted by a spill or release should be restored in a timely manner. In addition to the cleanup requirements for a spill or release in accordance with the Solid Waste Management Act, the Clean Streams Law, Act 2 and 25 Pa.Code § 91.33, well owners or operators are required to restore the well site under Section 3216 of the 2012 Oil and Gas Act 13, 58 Pa.C.S. § 3216. According to subsection (a) of that provision, well owners and operators are required to restore the land surface within the area disturbed in siting, drilling, completing and producing a well. The Department considers an area impacted by a spill or release at the well site to have been disturbed and to require restoration. Under Section 3216(c), well site restoration must be undertaken within 9 months after the completion of drilling any well. Therefore, if a spill occurs at a well pad and any of the spilled material leaves the well pad, the off-pad area impacted by the spill must also be restored within 9 months of completion of drilling.

Spills that occur on the unrestored area of the well pad must be remediated as soon as possible <u>in accordance with the remediation requirements outlined above</u>. Areas affected by a spill or release that are not on a well site should be restored and revegetated as soon as possible during the growing season and within a time period specified by the Department if outside the growing season.

The Responsible Partywell operator is expected to consult with the landowner of any area affected by a spill or release. Restoration and revegetation should ensure that the restored area is capable of supporting the type of vegetation that was present before the release. The Department considers a well site to be restored under the 2012 Oil and Gas Act 13 when the well site is restored to conditions that support the same potential uses of the land that existed prior to the spill or release, including the vegetation of those areas.

Restoration, including revegetation, is especially important with respect to substances that are not particularly toxic to humans, but that may exhibit phytotoxic properties, such as flowback fluids and production fluids containing chlorides. Plant species vary in their susceptibility to toxic effects of chlorides, and the appropriate levels for restoration and revegetation in many cases will depend on the particular use to be restored.

Appendix A DEP Regional Emergency Contact Numbers

Northwest Region	Northcentral Region	Northeast Region
230 Chestnut Street	208 W. Third Street, Suite 101	2 Public Square
Meadville, PA 16335-3481	Williamsport, PA 17701	Wilkes-Barre, PA 18701-1915
814-332-6945	570-327-3636	570-826-2511
(8:00 a.m. to 4:30 p.m. M-F)	(24-hour number including	(24-hour number including
1-800-373-3398	weekends and holidays)	weekends and holidays)
(After hours, weekends and	Counties: Bradford, Cameron,	Counties: Carbon,
holidays)	Clearfield, Centre, Clinton,	Lackawanna, Lehigh, Luzerne,
Counties: Butler, Clarion,	Columbia, Lycoming, Montour,	Monroe, Northampton, Pike,
Crawford, Elk, Erie, Forest,	Northumberland, Potter, Snyder,	Schuylkill, Susquehanna, Wayne
Jefferson, Lawrence, McKean,	Sullivan, Tioga and Union	and Wyoming
Mercer, Venango and Warren	Suttivities, Troger and Critical	and wyoning
Southwest Region	Southcentral Region	Southeast Region
400 Waterfront Drive	909 Elmerton Avenue	2 East Main Street
Pittsburgh, PA 15222	Harrisburg, PA 17110	Norristown, PA 19401
412-442-4000	877-333-1904	484-250-5900
(24-hour number including	(24-hour number including	(24-hour number including
weekends and holidays)	weekends and holidays)	weekends and holidays)
Counties: Allegheny, Armstrong,	Counties: Adams, Bedford, Berks,	Counties: Bucks, Chester,
Beaver, Cambria, Fayette, Greene,	Blair, Cumberland, Dauphin,	Delaware, Montgomery and
Indiana, Somerset, Washington	Franklin, Fulton, Huntingdon,	Philadelphia
and Westmoreland	Juniata, Lancaster, Lebanon,	_
	Mifflin, Perry and York	