

Testimony of

Deputy Secretary Kurt Klapkowski
Office of Oil and Gas Management

Department of Environmental Protection

Before the House Environmental Resources and Energy Committee

Monday, April 24, 2023

Good morning Chair Vitali, Chair Causer, and members of the House Environmental Resources & Energy Committee. My name is Kurt Klapkowski and I am the Deputy Secretary for the Office of Oil and Gas Management (OOGM) at the Department of Environmental Protection (DEP). On behalf of DEP, thank you for the opportunity to provide information about the proper abandonment of oil and gas wells in the Commonwealth, the oil and gas industry's record of compliance with those requirements and potential approaches to address these issues.

Pennsylvania has a long history of oil and gas development with the first commercial oil well drilled in 1859 near Titusville, Pennsylvania. Since then, it has been estimated that as many as 300,000 to 760,000 oil and gas wells have been drilled in the state. A significant number of wells were drilled and abandoned prior to enactment of Pennsylvania's modern oil and gas statute, which was established in 1984 (1984 Oil and Gas Act). The 1984 Oil and Gas Act required an operator to plug a well that was not used to produce, extract or inject any gas, petroleum or other liquid within the preceding 12 months or from which equipment necessary for production was removed. Other wells have been abandoned by operators who declare bankruptcy or move operations out of Pennsylvania, leaving their wells unplugged and posing a potential threat to public health, public safety and the environment.

Act 96 of 2022 removed one tool that DEP and the Environmental Quality Board had to address improper abandonment – adjusting conventional oil and gas well bonds to reflect the projected costs to the Commonwealth of plugging the well. In response to the passage of this legislation, Governor Wolf directed the Department to prepare a report reviewing existing processes and procedures to address abandoned wells and violations of the applicable law. The report was released on December 29, 2022 and contains information regarding compliance levels and potential responses available to the Department. Based on that report, Acting Secretary Negrin has directed the Office of Oil and Gas Management (or OOGM) to develop approaches to slow and eliminate improper abandonment to meet our constitutional obligations and protect Pennsylvania's taxpayers from bearing the burden of future well plugging responsibility.

Reviewing data developed since 2017, DEP has identified significant non-compliance with laws and regulations in the conventional oil and gas industry, particularly regarding improper abandonment of oil and gas wells, as well as not reporting hydrocarbon and waste production and conducting mechanical integrity assessments.

Wells that are improperly abandoned may pose environmental and public health and safety threats such as gas migration into occupied structures, water supply impacts, surface water impacts, hazardous air pollutant emissions, methane emissions, and soil and groundwater contamination. These wells may become the responsibility of the state's taxpayers to plug, along with remediation and reclamation of the well site. The failure to report denies DEP critical information about the operating

status of individual wells. Significant changes in the conventional oil and gas industry will need to occur before meaningful improvement can happen.

Although the recent compliance trends are troubling, the good news is that DEP possesses the authority and tools necessary to take appropriate steps to begin to address these issues. These tools include the use of administrative orders, civil penalty assessments, bond forfeiture, entry and docketing of liens, criminal referrals when appropriate, permit denials and increased scrutiny of permit transfer and regulatory inactive status requests.

We are also beginning to address these threats using funds provided by the Infrastructure Investment and Jobs Act, or IIJA, signed into law by President Biden on November 15, 2021. DEP has approximately \$22.5 million out in plugging contracts as of today to plug 226 wells across the state. And we will be doing more IIJA work in the years to come with the potential for an additional \$386 million in federal well plugging funding between now and 2030.

The DEP is also interested in working with conventional oil and gas operators who get it right – properly plugging their wells when they become unproductive and meeting the annual reporting deadlines. 100% compliance is always the goal and understanding what works or how processes, systems and information or training can be improved to get to higher levels of compliance are important efforts to undertake alongside enforcement.

Ensuring proper abandonment of conventional wells and protecting the taxpayers of the Commonwealth from bearing those costs will require additional resources, especially in the Bureau of District Oil and Gas Operations (in particular, field inspectors and enforcement personnel such as Compliance Specialists as well as permitting geologists) and the Office of Chief Counsel which provides the legal guidance to identify responsible parties and compel compliance.

Recent Record of Compliance with Reporting Requirements and Performance Requirements Under Existing Law

The primary statutory provisions that apply to the conventional oil and gas industry are codified in Title 58 of the Pennsylvania Consolidated Statutes, Chapter 32 (relating to development). For shorthand, this law is often referred to as "Act 13 of 2012" or the "2012 Oil and Gas Act." The primary regulations applicable to conventional oil and gas development are located in 25 Pa.Code Chapter 78 (relating to oil and gas wells). Other Pennsylvania statutes and regulations, such as the Solid Waste Management Act, the Clean Streams Law, the Dam Safety and Encroachments Act, the Air Pollution Control Act and regulations developed under the authority of those statutes, may also apply to conventional oil and gas operations, depending on the activity being conducted.

OOGM develops and collects significant data concerning the oversight of and enforcement against the conventional oil and gas industry and has reviewed the compliance data for this industry sector for the prior six calendar years. Table 1 demonstrates that OOGM's significant inspection efforts (more than 76,000 inspections conducted on conventional wells) which uncovered almost 22,000 violations. It is also worth noting that significant numbers of conventional oil and gas operators were cited for violations of the applicable statutes and regulations.

| Summary of conventional well inspections/violations from 2017 through 2022 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--|--|--|--|--|
| Calendar Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | | | | | |
| Count of unique operators that had conventional wells inspected | 630 | 627 | 607 | 615 | 645 | 663 | | | | | |
| Count of unique conventional wells inspected | 11,888 | 10,447 | 8,919 | 7,692 | 8,780 | 8,387 | | | | | |
| Count of total inspections conducted on conventional wells | 15,254 | 13,422 | 12,101 | 10,500 | 11,749 | 13,018 | | | | | |
| Count of total violations cited on conventional wells | 3,286 | 3,072 | 1,784 | 3,957 | 4,469 | 5,416 | | | | | |
| Count of unique operators with a violation cited for conventional wells | 176 | 158 | 131 | 239 | 202 | 188 | | | | | |
| Count of unique conventional wells with a violation cited | 1,108 | 1,326 | 453 | 1,039 | 980 | 904 | | | | | |
| Percent of conventional wells inspected with violations | 9.3% | 12.7% | 5.1% | 13.5% | 11.2% | 10.8% | | | | | |
| Percent of operators that had conventional wells inspected with violations | 27.9% | 25.2% | 21.6% | 38.9% | 31.3% | 28.3% | | | | | |

Table 1. Summary of conventional well inspections/violations from 2017 through 2021.

Of particular concern to DEP is the general lack of compliance with reporting requirements in the 2012 Oil and Gas Act and Chapter 78, including hydrocarbon production and waste produced, as well as how that waste was managed. Without accurate production reporting, DEP cannot determine if a well has been "used to produce, extract or inject and gas, petroleum or other liquid within the preceding 12 months." If a well is not so used, it is defined by the 2012 Oil and Gas Act as abandoned and must be plugged. The failure to report how much waste is generated and how the waste was managed poses obvious problems for an agency charged with overseeing proper waste management practices. In addition to production reporting, conventional oil and gas operators are also required to investigate and report on the mechanical integrity of their wells. This integrity review and information is crucial for protecting the environment and public health and safety.

As Table 2 shows, reporting non-compliance is widespread. In order to exclude home use wells from this analysis (a subset of conventional wells used by homeowners or businesses for consumptive use on the property where the well is located and typically operated by non-industry persons), this reporting compliance analysis was limited to include only those operators with eleven or more conventional oil and gas wells. Less than 30% of such operators report their production or mechanical integrity assessments on time. Even including operators who do eventually submit information after the compliance date, the annual compliance rate fails to climb above 50%.

| Production/Waste data submissions by operators with 11 or more conventional wells | | | | | | | | | | | |
|---|---------------|------------|------------|-------|-------|-------|-------|--|--|--|--|
| Calendar Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total | | | | |
| Count of conventional well operators that submitted data by reporting deadline | 194 | 193 | 177 | 167 | 172 | 174 | 1,077 | | | | |
| Percentage of conventional well operators that submitted data by reporting deadline | 28.5% | 28.7% | 26.5% | 25.3% | 26.4% | 27.6% | 27.2% | | | | |
| Count of conventional well operators that submitted data but did not meet the reporting deadline | 121 | 106 | 130 | 109 | 77 | 62 | 605 | | | | |
| Percentage of conventional well operators that submitted data but did not meet the reporting deadline | 17.8% | 15.8% | 19.5% | 16.5% | 11.8% | 9.8% | 15.3% | | | | |
| Count of conventional well operators that failed to submit data | 366 | 373 | 361 | 383 | 403 | 394 | 2,280 | | | | |
| Percentage of conventional well operators that failed to submit data | 53.7% | 55.5% | 54.0% | 58.1% | 61.8% | 62.5% | 57.5% | | | | |
| Total count of conventional well operators | 681 | 672 | 668 | 659 | 652 | 630 | 3,962 | | | | |
| Mechanical Integrity Assessment data submissions by operators w | ith 11 or moi | e conventi | onal wells | | | | | | | | |
| Calendar Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total | | | | |
| Count of conventional well operators that submitted data by reporting deadline | 197 | 184 | 202 | 192 | 188 | 167 | 1,130 | | | | |
| Percentage of conventional well operators that submitted data by reporting deadline | 28.9% | 27.4% | 30.2% | 29.1% | 28.8% | 26.5% | 28.5% | | | | |
| Count of conventional well operators that submitted data but did not meet the reporting deadline | 69 | 82 | 86 | 76 | 76 | 47 | 436 | | | | |
| Percentage of conventional well operators that submitted data but did not meet the reporting deadline | 10.1% | 12.2% | 12.9% | 11.5% | 11.7% | 7.5% | 11.0% | | | | |
| Count of conventional well operators that failed to submit data | 415 | 406 | 380 | 391 | 388 | 416 | 2,396 | | | | |
| Percentage of conventional well operators that failed to submit data | 60.9% | 60.4% | 56.9% | 59.3% | 59.5% | 66.0% | 60.5% | | | | |
| Total count of conventional well operators | 681 | 672 | 668 | 659 | 652 | 630 | 3,962 | | | | |

Table 2. Conventional Oil and Gas Reporting.

Table 3 breaks down the conventional oil and gas violations from 2017 through 2021 by violation type, with a further distinction between "environmental/health/safety" and "administrative" violations. Most disturbingly, the number one "environmental/health/safety" violation that DEP has noted is the violation of requirements in the 2012 Oil and Gas Act and Chapter 78 for the proper abandonment of oil and gas wells. Section 3220 of the 2012 Oil and Gas Act states in relevant part:

- § 3220. Plugging requirements.
- (a) General rule.--Upon abandoning a well, the owner or operator shall plug it in the manner prescribed by regulation of the department to stop vertical flow of fluids or gas within the well bore, unless the department has granted inactive status for the well or it has been approved by the department as an orphan well.

Proper plugging of conventional oil and gas wells at the end of their economic life is critical for protecting public health and safety as well as the environment. Improperly plugged or unplugged wells can cause a myriad of problems, including gas migration into occupied structures, water supply impacts, surface water impacts, hazardous air pollutant emissions, methane emissions, and soil and groundwater contamination. Improperly plugged wells have been tied to fatal explosions in Pennsylvania and other states, so this is a category of potentially significant violations. Failure to properly plug an abandoned well also means that the task of properly plugging the abandoned well might fall to the Commonwealth – "the plugger of last resort" – and costs to do so passed along to Pennsylvania taxpayers. The issue of plugging obligations passing to the Commonwealth is especially critical for wells abandoned today but drilled before April 15, 1985, as these wells have no bonds

that could be forfeited to cover at least a portion of the cost of plugging them (see, Act 57 of 1997, the original waiver through Administrative Code amendments of bonding requirements for such oil and gas wells; Act 87 of 2012, Fiscal Code amendments that retained the Act 57 provisions and Act 96 of 2022, which amended the 2012 Oil and Gas Act to continue this waiver).

This is probably a good moment to discuss bonding levels. As noted above, due to the adoption of Act 57 of 1997 a significant number of active conventional oil and gas wells are not subject to <u>any</u> bonding requirements. Even those conventional oil and gas wells that are subject the bonding requirements in section 3225 of the 2012 Oil and Gas Act only have a maximum bond of \$2,500 per well or \$25,000 for all conventional oil and gas wells in Pennsylvania. Further, the Environmental Quality Board was stripped of authority to amend this level of bonding for the next ten years by the passage of Act 96 of 2022 last summer.

Prior to the passage of Act 96 of 2022, section 3225 of the 2012 Oil and Gas Act (and Section 215 of the 1984 Oil and Gas Act before that) granted the Environmental Quality Board the authority to amend well bond amounts every two years to "reflect the projected costs to the Commonwealth of plugging the well." It is worth taking a moment to discuss what those projected costs might be. DEP plugged more than 3,300 abandoned and orphan wells between 1989 and the present. Taken as a whole, the historic average per-well plugging cost was around \$33,000 per well plugged. As part of a statistical analysis conducted as part of the Commonwealth's submission of a Notice of Intent to Apply for a Formula Grant to the Department of the Interior in December 2021, DEP estimated that future costs to plug wells would average around \$68,000 per abandoned well plugged. Finally, DEP's "request for bid" contracts issued as part of the Initial Grant activity under the Infrastructure Investment and Jobs Act have come in at around \$110,000 per abandoned well plugged. This last number is likely inflated due to the rapidity with which funds were required to be obligated, the obligations to pay prevailing wages, and a general shortage of equipment, skilled plugging operators and plugging supplies as the IIJA efforts were being conducted by other states and the federal government at the same time Pennsylvania was issuing contracts. However, it is clear that the current conventional well bond amounts under the 2012 Oil and Gas Act neither cover the "the projected costs to the Commonwealth of plugging the well" nor do those bond amounts provide an adequate financial incentive for operators to properly plug the well (especially if the bond amount is zero). Many operators do choose to follow the regulations and properly plug their wells, even without this incentive. But the compliance information outlined above makes it clear that other operators do not take such steps.

| Top 10 Envionmental/Health/Safety (EHS) and Administrative violations associated with conventional wells for calendar years 2017 through 2022 | | | | | | |
|--|-----------|--------|-------|--|--|--|
| Violation Code | | | | | | |
| OGA3220(A) - PLUGGING REQUIREMENTS - Failure to plug the well upon abandoning it. | EHS | 3,631 | 2,393 | | | |
| SWMA 301 - MANAGEMENT OF RESIDUAL WASTE - Person operated a residual waste processing or disposal facility without obtaining a permit for such facility from DEP. Person stored, transported, processed, or | | | | | | |
| disposed of residual waste inconsistent with or unauthorized by the rules and regulations of DEP. | EHS | 761 | 386 | | | |
| 78.57(a) - CONTROL, STORAGE AND DISPOSAL OF PRODUCTION FLUIDS - Operator failed to collect the brine and other fluids produced during operation, service and plugging of the well in a tank, pit or a series of | | | | | | |
| pits or tanks, or other device approved by the Department or Operator discharged brine or other fluids on or into the ground or into waters of the Commonwealth. | EHS | 677 | 326 | | | |
| 78.54 - GENERAL REQUIREMENTS - Operator failed to control and dispose of fluids, residual waste and drill cuttings, including tophole water, brines, drilling fluids, drilling muds, stimulation fluids, well servicing | | | | | | |
| fluids, oil, and production fluids in a manner that prevents pollution of the waters of the Commonwealth. | EHS | 443 | 210 | | | |
| 78.73(a) - GENERAL PROVISION FOR WELL CONSTRUCTION AND OPERATION - Operator failed to construct and operate the well in accordance with 25 Pa. Code Chapter 78 and ensure that the integrity of the well is maintained and health, safety, environment and property are protected. | EHS | 430 | 189 | | | |
| 78.91(a) - PLUGGING - GENERAL PROVISIONS - Upon abandoning a well, the owner or operator failed to plug the well to stop the vertical flow of fluids or gas within the well bore under 25 Pa. Code §§ | | | | | | |
| 78.92—78.98 or an approved alternate method. | EHS | 367 | 193 | | | |
| OGA3259(1) - UNLAWFUL CONDUCT - Drilling, altering or operating a well without a permit. Failure to comply with rules or regulations adopted under the 2012 Oil and Gas Act, DEP order, or a term or condition | | | | | | |
| of the well permit. | EHS | 317 | 61 | | | |
| SWMA 610(1) - UNLAWFUL CONDUCT - Person dumped or deposited, or permitted the dumping or depositing, of solid waste onto the surface of the ground or underground or into the waters of the Commonwealth, without a permit for the dumping of such solid wastes from DEP. | EHS | 311 | 199 | | | |
| SWMA 302(A) - DISPOSAL, PROCESSING AND STORAGE OF RESIDUAL WASTE - Person disposed, processed, stored, or permitted the disposal, processing or storage of residual waste in a manner which is contrary | 2113 | 311 | 133 | | | |
| to the rules and regulations of DEP or to any permit or to the terms or conditions of any permit or any order issued by DEP. | EHS | 303 | 190 | | | |
| 78.88(b)1-4 - OPERATING WELLS - MECHANICAL INTEGRITY OF OPERATING WELLS - Operator failed to meet minimum requirements for inspections to determine compliance with the well construction and | 2110 | 303 | | | | |
| operating requirements. | EHS | 289 | 204 | | | |
| Total | EHS | 7,529 | | | | |
| 78.121(A) - WELL REPORTING – PRODUCTION REPORTING – Conventional operator failed to submit annual conventional production and status report for permitted or registered well. | Admin | 2,366 | 1,485 | | | |
| 78.88(e) - OPERATING WELLS - MECHANICAL INTEGRITY OF OPERATING WELLS - Operator failed to submit an annual report to the Department identifying the compliance status of each well with the mechanical | | , | | | | |
| integrity requirements for structurally sound wells in compliance with 25 Pa. Code Section 78.73(c). | Admin | 2,333 | 1,537 | | | |
| OGA3211(H) - WELL PERMITS - LABELING - Failure to install, in a permanent manner, the permit number on a completed well. | Admin | 2,181 | 1,450 | | | |
| OGA3211(G) - WELL PERMITS - POSTING - Failure to post the well permit number and the operator's name, address and phone number at the well site during construction of the access road, site preparation and | | | | | | |
| during drilling, operating or alteration of well. | Admin | 1,421 | 887 | | | |
| 78.121(B) - WELL REPORTING – PRODUCTION REPORTING – Operator failed to electronically submit production and status report to the Department through its web site. | Admin | 855 | 558 | | | |
| 78.88(a) - OPERATING WELLS - MECHANICAL INTEGRITY OF OPERATING WELLS - Operator failed to inspect each operating well quarterly for compliance with the well construction and operating requirements. | Admin | 635 | 387 | | | |
| 78.88(A) OPERATING WELLS - MECHANICAL INTEGRITY OF OPERATING WELLS - Operator failed to record inspection results and retain records for at least 5 years for review by the Department. | Admin | 210 | 133 | | | |
| 78.122(A) - WELL REPORTING – WELL RECORD – Operator failed to keep a detailed drillers log at well site or submit a complete well record, on a form provided by the Department, within 30 days of cessation of drilling or altering. | Admin | 62 | 41 | | | |
| 78.124(A) - WELL REPORTING – CERTIFICATE OF PLUGGING – Owner or Operator failed to submit a certificate of plugging to the Department and each coal operator, lessee or owner who was sent notice, by | 7.0111111 | 52 | | | | |
| certified mail, of intent to plug, within 30 days after well has been plugged. | Admin | 61 | 42 | | | |
| 102.4(b)8 - EROSION AND SEDIMENT CONTROL REQUIREMENTS — E & S plan, inspection reports and monitoring records were not available at the project site during all stages of earth disturbance activity. | Admin | 56 | 24 | | | |
| Total Total | Admin | 10,180 | | | | |

Table 3. Top 10 Environmental/Health/Safety (EHS) and Administrative violations associated with conventional wells for calendar years 2017 through 2021.

In response to this non-compliance, DEP has undertaken significant efforts to compel compliance with Pennsylvania's rules and regulations or penalize operators. Over \$1.9 million in penalties were assessed on conventional oil and gas operators over the period and 80 administrative orders were issued.

Table 4. Summary of enforcement actions from 2017 through 2021 that were associated with conventional well violations.

| | Summary of enforcement actions from 2017 through 2022 that are associated with conventional well violations | | | | | | | | | | | | | |
|--|---|---------------------------------|------------------------------|---------------------------------|------------------------|---------------------------------|------------------------|---------------------------------|------------------------|---------------------------------|------------------------------|---------------------------------|---------------------------|---------------------------------|
| Count by Enforcement Type | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | | Grand Total | |
| | Count of Enforcement s | Sum of Penalties Assessed | Count of Enforcement s | Sum of Penalties Assessed | Count of Enforcement s | Sum of Penalties Assessed | Count of Enforcement s | Sum of Penalties Assessed | Count of Enforcement s | Sum of Penalties Assessed | Count of Enforcement s | Sum of Penalties Assessed | Total Enforcement s | Sum of Penalties Assessed |
| ADORD - Administrativ e Order | 4 | | 13 | | 3 | | 3 | | 3 | | 7 | | 33 | 0 |
| BDFT - Bond Forfeiture | 1 | \$25,000.00 | | | 2 | \$40,000.00 | 2 | \$47,500.00 | 3 | \$75,163.00 | 3 | \$235,700.00 | 11 | \$423,363.00 |
| CACP - Consent Assessment of Civil Penalty | 16 | \$503,490.00 | 18 | \$195,178.00 | 8 | \$121,050.00 | 9 | \$269,589.00 | 7 | \$34,783.00 | 11 | \$46,676.00 | 69 | \$1,170,766.0 0 |
| CDEC - Consent Decree | | | | | 1 | | | | | | | | 1 | 0 |

| CMPOR - Compliance Order | 2 | | 6 | | 2 | | 2 | 1 | 5 | | 18 | 0 |
|--|-----|--------------|-----|-------------|-----|-------------|-----|-----|-----|--------------|-------|-------------|
| COA - Consent Order and Agreement | 5 | \$16,300.00 | 3 | | 5 | \$82,500.00 | 2 | 2 | 4 | | 21 | \$98,800.00 |
| CPA - Civil Penalty Assessment | | ¥ = 0,000.00 | | \$70,000.00 | | \$16,285.00 | | | 5 | \$129,605.00 | 8 | |
| CTORD - Court Order | 3 | \$5,000.00 | 3 | | 9 | | 2 | | 4 | | 21 | \$5,000.00 |
| EHBO - Environment al Hearing Board Order | | | | | 1 | \$42,500.00 | | | | | 1 | \$42,500.00 |
| NOV - Notice of Violation | 225 | | 206 | | 133 | | 304 | 262 | 287 | | 1,417 | 0 |
| PTCON - Petition for Contempt | 3 | | | | 1 | | 1 | | 1 | | 6 | 0 |
| PTNEN - Petition to Enforce | 2 | | 5 | | 1 | | | | 1 | | 9 | 0 |
| VIOIN - Violation Inquiry | | | | | | | 1 | | | | 1 | 0 |

| Grand Total | 261 | \$549,790.00 | 255 | \$265,178.00 | 168 | \$302,335.00 | 326 \$317,089.00 | 278 \$109,946.00 | 328\$411,981.00 | 1,616 0 \$1,956,319.0 0 |
|-------------|-----|--------------|-----|--------------|-----|--------------|------------------|------------------|-----------------|----------------------------------|
|-------------|-----|--------------|-----|--------------|-----|--------------|------------------|------------------|-----------------|----------------------------------|



Enhancement of Enforcement Actions Relating to Improper Well Abandonment

Clearly, there is significant non-compliance in the conventional oil and gas industry. The bad news is that DEP's use of enforcement tools and techniques available to it have not made an appreciable dent in compliance rates over the past six years. The good news is that with some specific effort, streamlined processes and additional resources, the existing tools might be used in a way that will provide effective deterrence for those in the conventional oil and gas industry presently choosing not to comply.

Administrative Orders to Plug Improperly Abandoned Wells

First, an administrative order is a basic and important enforcement tool for DEP to obtain compliance with the Commonwealth's statutes and regulations, particularly relating to improper abandonment of an oil or gas well. OOGM is working with DEP's Office of Chief Counsel to develop standard operating procedures to issue administrative orders containing standardized, readily defensible provisions requiring plugging of the well within a defined timeframe. This "template" order will reduce review time for compliance and legal personnel. Given the significant potential for threats from abandoned, unplugged wells to the environment and public health and safety, as well as the potential fiscal impacts to the Commonwealth's taxpayers, the more frequent use of administrative orders is a prudent step to take in these cases. Violations of such final orders also would give the DEP authority to deny applications for new well permits and deny permit transfers, an additional deterrent.

Bond Forfeiture

Second, bond forfeiture is another enforcement tool available to DEP. OOGM is working with the Office of Chief Counsel to develop a template "Notice of Intent to Forfeit" letter to be issued to operators in conjunction with the template administrative order to properly plug abandoned wells. This letter commences the bond forfeiture process. DEP should make resources available to carry the process to its conclusion, forfeiting the bond and requiring replacement as a condition of continued operation of conventional oil and gas wells.

Civil Penalty Assessments

Third, OOGM is working with DEP's Office of Chief Counsel to develop a standard protocol for assessing civil penalties for violations relating to improper abandonment of conventional oil and gas wells. Assessment and collection of civil penalties for violations can provide a significant deterrence effect if they are used consistently for significant violations such as improper abandonment and can address abandonment violations for wells drilled prior to 1985. The 2012 Oil and Gas Act allows DEP to assess penalties considering "savings resulting to the violator as a result of the violation," which in this case would be the cost of properly abandoning and plugging the well.

In addition to the direct deterrence impact of civil penalty assessments, failure to pay such assessments or appeal to the Environmental Hearing Board also gives the Commonwealth the authority to enter liens against the violator. DEP is working to routinely enter and docket liens on the real and personal property of conventional oil and gas operators when valid civil penalty assessments are not paid.

Criminal Referrals

Finally, DEP can refer matters to the Office of Attorney General for criminal investigation and enforcement. In addition to other statutes providing criminal penalties such as the Solid Waste Management Act and the Clean Streams Law, the 2012 Oil and Gas Act also contains criminal penalties for violations. OOGM will continue to review enforcement cases with the DEP Office of Chief Counsel and consider referral of appropriate cases to the Office of Attorney General for criminal investigation.

Administrative Functions

In addition to taking enforcement actions to require correction of non-compliance and deter future violations, DEP also engages in several administrative functions that can be improved to make improper abandonment of non-economic oil and gas wells less likely. Primarily, this involves greater scrutiny of conventional oil and gas well permit transfers from better- to lesser-capitalized entities, and the closer review and approval of regulatory inactive status requests, which enable operators to cease producing wells without plugging them and reclaiming the well site. In addition, DEP has the authority to deny new permits for non-compliance with final actions or issue permit suspension and revocation orders in particular cases.

Permit Transfers

The only grounds for denying a permit transfer are lack of bonding compliance and failure to comply with a final action of DEP, which includes an administrative order. By routinely issuing administrative orders requiring plugging when improper abandonment of a conventional oil and gas well occurs, DEP will either 1) obtain compliance with the plugging and reclamation requirements, or 2) be entitled to block the transfer of permits from the violator to a third party.

This second piece is particularly critical given the final sentence of section 3211(k), as well as section 3223 of the 2012 Oil and Gas Act, which together transfer the obligation to plug the well under section 3220 to the third-party transferee. Operators should not be entitled to benefit from their non-compliance and avoid their plugging obligation through a permit transfer.

When an operator requests to transfer permits, it is an appropriate time for DEP to gather useful information that would be critical later if the wells are improperly abandoned. This information should include operating agreements, identification of well owners and corporate structures so that OOGM can identify who controls and/or manages the wells in question.

Inactive Status

As noted above, section 3220 allows an operator of a conventional oil and gas well to avoid responsibility for plugging a well even if the well is not producing so long as DEP grants inactive status approval to the operator. While inactive status approval can be reasonable in certain circumstances such as fluctuations in commodity prices, it should not be used as a means of delaying proper plugging until the operator can transfer the well or otherwise avoid their plugging responsibilities. Section 3214 of the 2012 Oil and Gas Act and DEP's regulations in 25 Pa.Code §§ 78.101 – 78.105 govern the standards to qualify a well for inactive status and the operator's ongoing responsibilities regarding the well while it is in inactive status.

In the past, DEP was not as aggressive in requiring detailed plans to be submitted by conventional oil and gas operators demonstrating the future utility of the well in detail, relying instead on certifications of future utility made by the operator. Table 5 outlines the number of regulatory inactive status requests approved by DEP since 2017:

| Count of conventional well inactive status requests approved each calendar year by each District | | | | | | | | | | | | |
|--|------|------|------|------|------|------|-------|--|--|--|--|--|
| Year | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total | | | | | |
| Eastern District Office | 0 | 9 | 5 | 2 | 6 | 6 | 28 | | | | | |
| Northwest District Office | 58 | 31 | 3 | 3 | 3 | 10 | 108 | | | | | |
| Southwest District Office | 15 | 0 | 31 | 1 | 1 | 0 | 48 | | | | | |
| Total | 73 | 40 | 39 | 6 | 10 | 16 | 184 | | | | | |

Table 5. Count of conventional well inactive status requests approved each calendar year by District.

In 2018, DEP updated its Inactive Status request form

https://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderlD=3066. One of the changes to the form was to require additional data and plans relating to the future utility of the well, which is critical for separating legitimate inactive status applications from attempts to defer plugging responsibilities. DEP should continue to request this information from inactive status applicants and only grant inactive status applications where the operator has met the burden of proving future utility.

Permit Denial, Suspension or Revocation

The 2012 Oil and Gas Act establishes conditions under which DEP may deny a permit application to drill or operate a new conventional well. As noted in the Permit Transfer discussion, above, issuing administrative orders to plug wells will allow DEP to exercise its authority to deny new well permit applications if the plugging order has not resulted in compliance. Similarly, if an operator has entered into a consent agreement with DEP and has not performed its obligations, permits should be denied. Operators should not be entitled to benefit from their non-compliance and still obtain permits to drill new wells.

Permit suspension or revocation is also authorized under section 3253(b) of the 2012 Oil and Gas Act if there are continuing violations of the 2012 Oil and Gas Act or other statutes administered by DEP and the likely result "is an unsafe operation or environmental damage." DEP will consider moving to suspend or revoke operating permits if the conditions of section 3253(b) are met.

Bonding Alternatives

As for conventional oil and gas well bonding, as noted above the General Assembly has significantly limited the EQB's authority to change bond amounts for conventional wells drilled after April 18, 1985 or even require bonds for wells drilled before that date. DEP continues to seek other avenues to make improvements to programs designed to reduce future orphaned well burdens, such as alternative funding mechanisms for orphaned well programs to protect taxpayers from assuming additional liabilities, and reforms to programs relating to well transfer or temporary abandonment, as noted above. DEP is currently working to compile information regarding how other states approach these issues and make recommendations for any reasonable legislative or regulatory changes that might assist in avoiding improper abandonment.

Conclusion

The conventional oil and gas industry's recent record of compliance is simply not good, particularly with regard to improper abandonment of wells. This record of compliance will require DEP to develop and refine its techniques for deterring violations and encouraging compliance with relevant statutory and regulatory provisions. A significant change in the culture of non-compliance in the conventional oil and gas industry will need to occur before meaningful improvement can happen.

Wells that are improperly abandoned may pose environmental and public health and safety threats and may become the responsibility of the state to plug along with remediation and reclamation of the well site. The reporting non-compliance denies DEP critical information about individual wells and the overall industry and has become so widespread among operators with 11 or more conventional oil and gas wells as to be the rule rather than the exception.

Although the recent compliance trends for the conventional oil and gas industry are troubling, as laid out above, DEP does possess the necessary authority and tools needed to take appropriate steps to address these issues. These tools include the use of administrative orders, permit denials, civil penalty assessments, bond forfeiture, entry and docketing of liens, criminal referrals when appropriate, permit suspension and revocation and increased scrutiny of permit transfer and regulatory inactive status requests. It cannot be emphasized strongly enough, however, that increased oversight of the conventional oil and gas industry and enforcement will require additional resources, especially in the DEP Office of Chief Counsel and the Bureau of District Oil and Gas Operations. Developing a stable funding source to fund these efforts will be critical to successfully altering the current course of non-compliance in the conventional oil and gas industry in Pennsylvania.