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Before the Environmental Quality Board and Department of Environmental Protection on proposed revisions to oil & gas regulations, Chapter 78 of the Pennsylvania Code

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Thank you for the opportunity to speak this evening. Founded in 1988, Earthworks is a nonprofit organization dedicated to protecting communities and the environment from the negative impacts of mineral and energy development while seeking sustainable solutions. As Eastern Program Coordinator, I focus on both policy and community concerns related to shale gas development in Pennsylvania and neighboring states.

Five years into Pennsylvania's shale gas boom, it is high time for a full overhaul of Chapter 78. It is increasingly clear that gas development poses hazards to health and air and water quality by virtue of the products used, substances produced, and operator practices. Such realities—faced every day by communities statewide—should persuade the Board and the DEP to make oil and gas regulations as stringent and protective as possible.

Earthworks will submit extensive technical comments on numerous aspects of the proposed regulations. Tonight I will focus on concerns related to water quality and waste.

Water contamination and pre-drilling data

DEP has confirmed that drilling has caused at least 160 cases of water contamination. Yet a lack of testing and data allow operators to maintain that pollution does not exist, or that they did not cause it. Homeowners are often left not only to bear the burden of proof, but also to fend for themselves in securing safe drinking water.

- Pollution or degradation caused by well site construction should not be given an exception from the presumption of liability; soil erosion, sedimentation, and chemical and fuel leaks can all degrade water quality (section 78.51).

- All drillers should be required to use a consistent, comprehensive list of parameters for pre-drill water testing and to make results available to the public. DEP should

establish a list of parameters and online data platform before the proposed regulatory changes are adopted (section 78.52).

Waste storage and disposal

The challenge that operators face in dealing with growing volumes of solid and liquid waste should not be an excuse to allow dangerous substances to harm health and the environment.

The oil and gas industry alone enjoys a special exemption to the U.S. Resource Recovery and Conservation Act (RCRA), which regulates the storage, transport, and disposal of hazardous materials. Pennsylvania should choose to follow the protective standards of RCRA. At the very least, DEP's proposed Chapter 78 changes must address the risks posed by drilling waste; as currently proposed, they simply do not.

- Many spills and leaks occur at waste pits and impoundments. Production pits and any open impoundments, tanks, and modular structures should be prohibited for the temporary containment of regulated substances and production fluids (such as wastewater, drill cuttings, gels, and used frac sand).

  Only covered, closed-loop systems should be allowed for this purpose. These must have consistent and reliable leak detection, secondary containment, groundwater monitoring, and emission prevention systems. (Section 78.56 and 78.57.)

- "Freshwater" must be clearly defined for the purposes of regulation. Otherwise, operators will improperly use, process, and dispose of harmful substances such as effluent, mining water, and flowback. (Section 78.59.)

- The requirement that pits and impoundments be only 20 inches above the seasonal high groundwater table gambles with local water quality in a state with many shallow water sources. If pits are allowed, the separation distance must be vastly expanded; other states require far greater distances, such as 5 feet in Louisiana and 4 feet in Michigan. (Section 78.56.)

- The burial and land application of drill cuttings should be prohibited. Different regulations are proposed for drill cuttings from above and below the well casing seat, but this distinction does not make the practice safe. Drill cuttings contain chemicals and—as demonstrated by alarms often going off at landfills—can be radioactive. (Sections 78.61 and 78.63).

- The burial of production fluids and residual waste in pits and storage tanks should be prohibited. This "out of sight, out of mind" practice may be convenient for operators and the DEP, but waste burial leaves a toxic legacy behind, which the public will have to deal with in the future. (Section 78.57 and 78.62.)

- No waivers to waste disposal regulations should be issued. There is no evidence that DEP actually checks whether "alternative waste management practices" are "equivalent or superior" to Chapter 78 regulations—or in practice anything but a convenience for operators. (Sections 78.58, 78.59, and 78.62.)

- The use of brine for dust suppression, de-icing, and road stabilization should be prohibited. Brine from even conventional wells can push salinity loads excessively high. The safety of this practice has never been shown, and codification in Chapter 78 would allow DEP to evade its own beneficial use requirements. (Section 78.70.)

Accidents, spills, and equipment failures occur even during routine operations and at properly permitted facilities. It is imperative that the agency responsible for protecting the environment be up to the complex and vital task of enforcing its own rules.

Yet the vast majority of active wells go uninspected. Operators violate the same rules at different locations. The rate of enforcement actions per violation has gone down in recent years. It is tragically clear that at current funding and staffing levels, DEP is not able to keep pace with the expansion of drilling and facilities.

The Board and the DEP have a lot of work ahead to develop and adopt strong regulations—you must also do whatever it takes to ensure the regulations are followed. Pennsylvania's citizens deserve no less.

Thank you for your time and attention to these critical concerns.