



Center of Excellence in Environmental Toxicology (CEET)

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DEP Policy Office
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PO Box 2063
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RE: Revisions to Rules and Regulations Title 25- Environmental Protection Department of Environmental Protection 25 PA CODE CHS. 78 AND 78a

To whom it may concern:

The Center of Excellence in Environmental Toxicology (CEET) is the University of Pennsylvania's P30 Environmental Health Sciences Core Center (EHSCC) funded by the National Institute of Environmental Health Science (NIEHS). It is the only EHSCC in the Commonwealth of Pennsylvania and as such the communities it serves are impacted significantly by the hydraulic fracturing process. CEET and its public health professionals are pleased to offer the following comments on the above referenced proposed rule-making.

In April 2015, the Pennsylvania Department of Environmental Protection (DEP) released for public comment proposed revisions to the State oil and gas regulations. Chapter 78 regulations address the policies and practices for conventional operators, while Chapter 78a regulations pertain to unconventional Marcellus Shale operators. Overall, we applaud and support these proposed regulatory changes in anticipation that they will provide increased safeguards to the public health and the environment while maintaining a robust natural gas exploration program in Pennsylvania. Clearly they attempt to highlight and remediate current significant risks regarding on-site wastewater storage, the protection of sensitive populations and facilities, protection of Safe Drinking Water Act (SDWA) standards, and increased focus on noise mitigation. However, with our comments we will identify a number of specific issues that may still warrant additional scrutiny to ensure that the public and the environment are fully protected from potential significant adverse impacts associated with ongoing operations. DEP Secretary John Quigley recently stated "The proposed revisions focus on the need to protect public safety and the environment while enabling drilling to proceed." With up to 25,000 comments already being considered in developing these regulations, many of which identify a change to more stringent policies likely disrupting the booming natural

gas economy in the State, the DEP will be required to hold steadfast to its environmental positions in the face of numerous industry and political challenges.

Our specific comments are as follows:

All "open-air" well-site pits should be eliminated under Sections 78 and 78a. These facilities have been cited by the DEP as a cause of contaminated water and their immediate closure and future elimination is imperative to public safety. Ecologic damage in the immediate vicinity of the pits due to volatile chemicals also predicts human health exposure in close proximity.

(b) [Except as provided in § 78.56 (relating to pits and tanks for temporary [containment] storage), the] AN operator may not use a pit for the control, handling or storage of brine and other fluids produced during operation[, service or plugging] of a well [unless the pit is authorized by a permit under The Clean Streams Law (35 P.S. §§ 691.1—691.1001) or approval to operate the pit as an impoundment under The Clean Streams Law is obtained from the Department under subsection (c)].

Though the majority of operators are clearly avoiding well-site storage pits in their future plans, eliminating any possibility of permitting will clearly define that this dangerous practice will not be approved in future operations. In addition require that all centralized wastewater impoundments of any type shall be closed within six months of implementation date for these regulations. This action will send a strong signal to the industry that these practices are a risk that must be eliminated. However, if temporary permitting is required all such actions must meet the mandates of the Residual Waste Regulations at 25 PA code Chapter 299.

(1) Spills or releases to the ground of less than 42 gallons at a well site that do not [impact or] POLLUTE OR threaten to pollute [of] waters of the Commonwealth may be remediated by removing the soil visibly impacted by the SPILL OR release and properly managing the impacted soil in accordance with the Department's waste management regulations. The operator or responsible party shall notify the Department of its intent to remediate a spill or release in accordance with this paragraph at the time the report of the spill or release is made. [Completion of the cleanup should be documented through the process outlined in § 250.707(b)(1)(iii)(B) (relating to statistical tests).]

(2) For spills or releases to the ground of more than 42 gallons or that [impact] POLLUTE or threaten [pollution of] TO POLLUTE waters of the Commonwealth, the operator or OTHER responsible person MUST [may satisfy the requirements of this subsection by demonstrating] DEMONSTRATE attainment of one or more of the standards established by Act 2 and Chapter 250 (relating to administration of land recycling program) IN THE FOLLOWING MANNER:

[(3) For releases of more than 42 gallons or that impact or threaten pollution waters of the Commonwealth, as an alternative to paragraph (2), the responsible party may remediate a spill or release using the Act 2 background or Statewide health standard in the following manner:]

(i) Within 15 business days of the spill or release, the operator or OTHER responsible party shall provide an initial written report that includes, to the extent that the information is available, the following:

- (A) The regulated substance involved.*
- (B) The location where the spill or release occurred.*
- (C) The environmental media affected.*

What is the significance of 42 gallons in evaluating the dangers of any spillage to the environment? This seems arbitrary and capricious in designing a response strategy that is not risk based on the potential impacts of the hazard. Typical risk assessment protocol suggests first defining the hazard and the potential to cause harm rather than establishing a guideline based on what appears to be just a volume calculation. Historically spills are always under reported. Introducing 42 gallons as a benchmark measurement in the risk assessment process may just be inviting many spills to be under reported to avoid increased regulatory intervention. Would a 42-gallon spill of a carcinogen, such as benzene, be equal to a similar spill of brine?

(iii) Within 180 calendar days of the spill or release, the operator or OTHER responsible party shall perform a site characterization to determine the extent and magnitude of the [contamination] POLLUTION and submit a site characterization report to the appropriate Department regional office describing the findings. THE TIME TO SUBMIT THE SITE CHARACTERIZATION REPORT MAY BE EXTENDED BY THE DEPARTMENT. The report must include a description of any interim remedial actions taken. [For a background standard remediation, the site characterization must contain information required under § 250.204(b)(2)(e) (relating to final report). For a Statewide health standard remediation, the site characterization

In some cases 180 days to perform the risk characterization may actually be a short-term that would have to be administratively extended. However, the nature of the hazard and exposure may also require risk characterization to be completed in a more timely fashion to ensure adequate public health safeguards are achieved. For example, a release that has the potential to impact public drinking water or a recreational water source must be evaluated in a shorter timeframe than 180 days to provide adequate protection for public health. Also, does DEP oversight need to be further detailed? For example, will DEP perform its own sampling and monitoring in conjunction with operator or its consultant? Does DEP have to provide consent that operator's remediation meets the minimum thresholds to protect the public and the environment. However, we do feel that the site characterization process defined in Act 2 Sec 250.204 is a sound process that will do a good job at defining risk to the affected population.

We strongly support the time extension for other state agencies to evaluate potential impacts to "public resources" for plans and permits that are to be issued by the DEP. However, when resources affected may be considered broader in scope and require federal agencies or multi-state players, such as DRBC, to offer an expert opinion, we believe the possibility of additional time extensions should be referenced to allow for additional collaboration with important partner organizations when special resource issues are indentified.

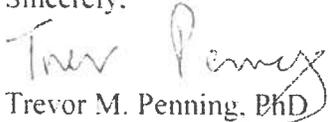
The concept of safe distances is referenced both with respect to environmental features, such as wetlands and streams, and especially children. We believe that human exposures should be more broadly considered with respect to sensitive populations. Much of our research now focuses on those "most-at-risk" and we feel stronger and more precise language is required to identify specific populations that are frequently exposed to

environmental risks that are more impacted because of developmental, gender or age sensitive conditions.

Finally, we believe that the greatest risk to the community may be from impaired public and private water supplies that may remain permanently damaged and will not be able to successfully meet MCL's as guaranteed by the mandates of the SDWA. Therefore, we encourage the adoption of strong and precise language that unambiguously states that ALL water supplies will meet pre-drilling SDWA standards prior to completion of activities by all operators, and that strict "command & control procedures" will be put in place for the DEP to achieve this provision of the regulations.

We appreciate the opportunity to comment on the DEP's proposed regulations on Chapter 78 and 78(a). We further believe this initiative is a significant step forward to govern an important industry for the Commonwealth and nation to increase our energy production and U.S. global energy independence. However, with all good plans, we need resources to achieve our most significant goals. We have been dismayed at DEP's inspection and monitoring rates at active sites for almost a decade. The success of these new regulations will largely depend on "boots-on-the-ground" to create both partnership with operators and deterrence to ensure that the regulated community meets the public's expectations both with respect to economics and environmental protection.

Sincerely,



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