

Summary of the Assessment of Public Comment

6 NYCRR Part 380

Prevention and Control of Environmental Pollution by Radioactive Materials

Full text of the Assessment of Public Comment is available on the New York State Department of Environmental Conservation's website at <http://www.dec.ny.gov/regulations/106149.html>

Introduction

This summary reflects the responses of the New York State Department of Environmental Conservation (DEC) to the main comments submitted by the public regarding the adoption of proposed amendments to 6 NYCRR Part 380, *Prevention and Control of Environmental Pollution by Radioactive Materials*.

The rule making was proposed on April 5, 2017 with the Notice of Proposed Rule Making published in the *State Register* and an announcement posted in DEC's *Environmental Notice Bulletin*. This included a 90 calendar day public comment period that ended on July 5, 2017, which was an additional 30 days beyond the initial 60-day comment period due to requests received from the public to extend the comment period. A legislative public hearing was held on May 25, 2017 in Albany with a public availability session held prior to the hearing. Oral comments were received during the hearing by one speaker and subsequently 99 commenters submitted written submissions (hard copy and electronic) by the July 5, 2017 public comment period deadline.

DEC received comments from four medical centers (University of Rochester Medical Center, New York University Langone Medical Center, Weill Cornell Medical Center, Albany Medical Center), business interests (American Petroleum Institute, New York State Business Council), a nuclear power generator (Entergy), 32 environmental advocacy groups and 81 individuals.

Based on comments received, DEC made the following changes to Part 380: (1) to improve clarity, the word "radioactive" was added to paragraph 380-1.2(a) between the words "licensed" and "materials;" (2) proposed paragraph 380-1.2(i)(3) was removed because the proposed provision is redundant; (3) the words "in the environment" were added to the definition of disposal in paragraph 380-2.1(a)(20) to clarify that depositing or injecting radioactive material in the environment is disposal and the phrase "in a scientific or other study" was deleted because any permitted use of radioactive material in the environment is not an act of discarding and should not be defined as disposal; (4) language was added to the definition of technologically enhanced naturally occurring radioactive material (TENORM) in paragraph 380-2.1(a)(66) to clarify that TENORM can be produced during the process of manufacturing or water processing; (5) the word "study" was replaced with "use" in the permitting requirements in 380-3.2(e)(4) so that the types of allowable permitted uses of radioactive material in the environment are not limited to only studies; (6) the examples of uncontrolled releases at the end of paragraph 380-9.2(a) were deleted for consistency with the definition of uncontrolled releases in paragraph 380-2.1(a)(67); and (7) the redundant phrase "or to mitigate the consequences of an accident" was deleted from the last sentence of paragraph 380-9.2(b)(2) because the notification provisions in paragraphs 380-9.2(b)(1)-(7) would ensure notification.

Main Themes of Comments

1. Support of the Proposed Amendments to Part 380

Four commenters indicated their support of the adoption of the proposed amendments. The commenters stated that the proposed rule provides a reasonable balance between environmental protection and the ability to execute work, that the proposed amendments are reasonable, and that the proposed amendments reflect best practices for the monitoring, control, and reporting of environmental radiation discharges and exposures, without imposing unreasonable financial burden or oversight.

2. Challenges to Part 380

- a. Several commenters stated that the radiation dose limits for the public in the proposed amendments are not acceptable and must be reduced. DEC's response explained that the 100 millirem (mrem) public dose limit in the Part 380 regulations have not changed, other than the addition of a 10 mrem dose constraint for radioactive emissions, and that the public dose limits are consistent with federal standards, which are protective of public health and the environment, and are based on international and national guidance.
- b. Several commenters stated that DEC should not allow disposal by variance, and considered variances a regulatory loophole. DEC's response explained that the variance provision in Section 380-3.5 describes the process for requesting a variance from specific provisions of Part 380, and this provision has not changed, other than being reworded to clarify that an application for a variance to approve proposed procedures to dispose of radioactive material is not the same as an application for a permit; instead, a variance application is for approval for alternative disposal procedures. DEC is required to maintain the variance provision for compatibility with federal regulations.
- c. Many commenters urged DEC to adopt the U.S. Environmental Protection Agency's (EPA) definition of technologically-enhanced naturally-occurring radioactive material (TENORM), which is broader than DEC's definition. DEC's response explained that 6 NYCRR 380-1.2(e) continues to regulate naturally-occurring radioactive material (NORM) that has been processed and concentrated, and now clarifies that such regulated radioactive material is commonly referred to as TENORM. The definition of TENORM being added to Part 380 is not identical to EPA's definition, because EPA's definition includes NORM that is exposed to the accessible environment. DEC is not adopting that portion of EPA's definition of TENORM because it could be interpreted to include materials containing levels of NORM present in natural isotopic abundance, whereas Part 380 regulates NORM that has been processed and concentrated (i.e., NORM that is present in elevated concentrations due to human activity).
- d. Many commenters requested that all waste generated by the drilling and development of oil and gas wells subject to hydraulic fracturing that are now classified as NORM be reclassified as TENORM. DEC's response explained that waste containing NORM that has been processed and concentrated continues to be regulated radioactive waste per 6 NYCRR 380-1.2(e), and that waste containing NORM in natural isotopic abundance is not regulated waste

under Part 380. Drilling waste (i.e., cuttings) contains NORM in natural isotope abundance; for this reason, drilling waste is not regulated by Part 380, because such waste does not contain elevated levels of radioactive materials resulting from processing. It would be inappropriate to reclassify waste containing NORM as TENORM when the waste does not exhibit elevated levels or radioactivity. In addition, other DEC regulations (6 NYCRR Parts 360 and 363) apply to landfills; waste containing NORM is not prohibited from disposal in landfills within the State. However, Part 363 prohibits the disposal of waste containing elevated levels of radioactivity, consistent with Part 380 requirements. Hence, TENORM is prohibited from disposal in a Part 363 landfill.

- e. Many commenters requested that the natural gas from Marcellus and Utica shale formations in Pennsylvania be classified as TENORM. DEC's response explained that it would not be appropriate to classify natural gas, from any source, as TENORM; natural gas contains radon, which is NORM, and is not subject to Part 380. Radon levels in natural gas have not been found to exist in significant concentrations, and do not result in elevated indoor radon levels.
- f. Several commenters claimed that DEC's definition of TENORM does not account for the buildup of radioactivity in pipes. DEC's response explained that the buildup of NORM in oil and gas system infrastructure has long been recognized as processed and concentrated NORM (aka TENORM), and the disposal of such radioactive waste has always been subject to regulation under Part 380.

3. Concerns with the Proposed Amendments

- a. A commenter expressed concern that the language change in 6 NYCRR 380-1.2(f) shifting the regulatory focus from "person" to the "disposal or release" suggests that radiological releases from facilities licensed by the U.S. Nuclear Regulatory Commission (NRC) could now be subject to Part 380. The commenter was concerned that DEC may be attempting to assert jurisdiction with respect to discharges, releases, and emissions at or from NRC-licensed facilities. DEC's response confirmed that it does not seek to assert jurisdiction over NRC-regulated activities at NRC-licensed facilities, and that Part 380 does not apply to NRC licensees, as all radiological activities undertaken by NRC licensees – including disposal and releases, are subject to regulation by NRC. 6 NYCRR 380-1.2(f) continues to state that Part 380 does not apply when such activities are subject to regulation by the NRC.
- b. A commenter objected to the change in language regarding applicability from "licensed radioactive material" to all "radioactive material" due to concerns that this language change expanded the scope of material subject to the rule. DEC's response confirmed that the amendment does not expand the scope of regulated material subject to Part 380, which continues to apply to licensed radioactive material and processed and concentrated NORM, and confirmed that although language was added to 6 NYCRR 380-1.2(e) to clarify that processed and concentrated NORM is also commonly referred to as TENORM, this clarification does not change or broaden the scope of this longstanding provision.

4. Requests for Additional Action

While DEC understands the concerns raised by the commenters below, each of these additional actions goes beyond the scope of this rule making. Below is a summary of the requested actions and DEC's responses.

- a. Several commenters requested that DEC scrutinize landfills to ensure that no TENORM is accepted from other states, employ radiation testing devices to detect whether incoming loads of waste are contaminated with TENORM, limit how much shale drill cuttings from Pennsylvania can be disposed of on a single landfill, and measure landfill leachate for radium.

Response: This issue is outside the scope of this rulemaking. However, landfill operations are subject to regulation by 6 NYCRR Part 360, et. seq. and the conditions of a DEC-issued permit, which includes the use of radiation detectors to prevent the disposal of prohibited waste such as TENORM and leachate sampling.

- b. A commenter requested that DEC independently calculate and measure radon at the wellhead from the Marcellus Shale formation in presently operation wells before issuing drilling permits.

Response: This issue is outside the scope of this rule making. However, well drilling operations are subject to 6 NYCRR Parts 550-559 and the conditions of the drilling permits.

- c. A commenter requested that DEC not accept the assumption that radioactivity from nuclear power operations impacts populations independently from other exposures, that DEC protect the most vulnerable individuals and populations, and ensure protection of New York's groundwater and source waters, as the longevity of many radionuclides make emissions from nuclear activities uniquely dangerous, and also stated that federal regulatory actions have enabled nuclear power interests to impose enormous costs upon site communities which have little to no recourse to self-protection.

Response: This issue is outside the scope of this rule making. The NRC has sole jurisdiction of the regulation of nuclear reactors and nuclear power generating stations. Those operations are subject to NRC's federal regulations (10 CFR 19-50) which are protective of all age groups.