PADEP Updates Guidance for Handling Radioactive Waste to Address Unconventional Oil and Gas Operations and Publishes Radioactive Materials Disposal Data

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On June 11, 2022, the Pennsylvania Department of Environmental Protection (PADEP) published a substantive revision to its technical guidance document (TGD) Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities (Guidance), TGD No. 250-3100-001 (June 11, 2022), in the *Pennsylvania Bulletin*, 52 Pa. Bull. 3374 (June 11, 2022). PADEP updated the Guidance, which was immediately effective, to assist unconventional oil and gas operators in complying with the obligation under 25 Pa. Code § 78a.58(d) to prepare an action plan specifying procedures for monitoring for and responding to radioactive material produced by the treatment processes (and other procedures). The Guidance does not cover waste from conventional oil and gas operations.

The Guidance applies to all solid waste processing or disposal facilities, including underground injection control wells, as defined in the Guidance, and well sites where fluids or drill cuttings generated by the development, drilling, stimulation, operation, or plugging of an oil or gas well are processed on-site. Facilities that are not required to monitor radiation, but do so voluntarily, are also subject to the Guidance.

PADEP originally published a draft version of the Guidance in the *Pennsylvania Bulletin* in October 2019. See 49 Pa. Bull. 6197 (Oct. 19, 2019). The final Guidance follows PADEP's July 2021 announcement that all Pennsylvania landfills, including those accepting unconventional oil and gas waste, would be required to conduct quarterly testing of leachate for radiological contamination prior to the liquid being treated on-site or being sent to an off-site wastewater treatment facility. See Press Release, PADEP, "Wolf Administration to Move Forward with Radiological Testing of Leachate at Landfills" (July 26, 2021).

In a September 30, 2022, meeting with the Low-Level Waste Radioactive Advisory Committee, PADEP presented its most recent data summarizing low-level radioactive waste (LLRW) disposal among the Appalachian Compact states (Pennsylvania, West Virginia, Delaware, and Maryland). Among the data presented, PADEP noted that in 2021 oil and gas operators sent approximately 236,000 cubic feet of technologically enhanced naturally occurring radioactive material (TENORM) waste generated during operations for disposal to out-of-state LLRW facilities. According to PADEP, shale gas operators disposed of a total of 811,070 cubic feet of TENORM waste between 2016 and 2021, most of which was sent to LLRW disposal facilities in Texas and Utah. See PowerPoint Presentation, PADEP, "Appalachian Compact: Low Level Radioactive Waste (LLRW) Disposal Data—Calendar Year 2021" (Sept. 30, 2022). PADEP is also currently reviewing its regulations allowing on-site disposal of radioactive and nonradioactive waste associated with well plugging activities, a response to the increased scale of the well plugging that will occur pursuant to the federal Infrastructure Investment and Jobs Act's conventional well plugging program. See Meeting Minutes, Oil & Gas Technical Advisory Bd. (Apr. 25, 2022).

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