

Regulatory Citation(s):

78.91. General provisions.

(a) Upon abandoning a well, the owner or operator shall plug the well under Sections 78.92 – 78.98 or an approved alternate method under Section 3220 of the act to stop the vertical flow of fluids or gas within the well bore unless one of the following applies....

Question:

How do operators go about acquiring permits for micro-seismic or seismic observation/monitoring wells? How do these wells fit into the current regulatory framework?

Response:

For shallow micro-seismic or seismic observation/monitoring wells, i.e., wells that are completed at or above the base of the deepest fresh groundwater-bearing zone, no permit is required. These wells should still be drilled and constructed in accordance with industry best practices and be configured in such a way to ensure protection of fresh groundwater by way of surface infiltration. Such wells should also be reported to the Department of Conservation and Natural Resources using the WebDriller Reporting System (<http://www.dcnr.state.pa.us/topogeo/groundwater/WebDriller/wdindex.aspx>) and decommissioned properly once they are no longer necessary to support operations.

For deeper micro-seismic or seismic observation/monitoring wells that are expected to penetrate brackish water/brines and/or oil- or gas-bearing strata, the casing and cementing program employed must meet all relevant requirements in Subchapter D of 25 Pa. Code Chapters 78 and 78a. Such wells are permitted as observation wells. Once the well ceases to be used as an observation well it must be plugged within 90 days according to procedures set forth in 25 Pa. Code Chapters 78.91-78.98 and 78a.91-78a.98. If the operator intends to convert the observation well to a production well, a change-in-use (well alteration) permit is required.

This guidance also pertains to seismic shot holes. However, because they contain charges, they should either be temporarily capped or plugged the same day they were drilled and loaded. They should also be re-plugged as soon as practicable in the event of a blowout.