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DERRY-LONDONDERRY EXIT 4A
13065

August 6, 2020

SPECIAL PROVISION

SECTION 662 -- WELLS, PUMPS AND APPURTENANCES

Item 662.282 – Decommission Monitoring Wells

Description

1.1 This work shall consist of decommissioning a monitoring well where shown on the plans or as directed in accordance with applicable sections of the New Hampshire Water Well Board Code of Administrative Rules, Chapter We 100 – We 1000, mainly Part We 604 - Abandonment of Wells. Well decommissioning shall only be performed by a licensed New Hampshire water well contractor per Administrative Rule We 604.02(b).

1.2 A monitoring well also falls under the New Hampshire Groundwater Release Detection Permits Code of Administrative Rules, Chapter Env-Or 700. Requirements in Administrative Rule Env-Or 704.02 - Groundwater Monitoring Wells shall be followed in the decommissioning process. A monitoring well identified as having a contaminated condition shall be handled using applicable OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standards, depending upon the contaminant present.

1.3 If constructed after January 1, 1984, well installation information may be on file with the New Hampshire Department of Environmental Services (NHDES). Well information may be obtained by visiting either the NHDES One-Stop website (<http://des.nh.gov/onestop/index.htm>) or by contacting the Water Well Board by phone at 603-271-1974.

Materials

2.1 Sealing material for a non-contaminated well shall consist of either: neat Portland cement grout; Portland cement grout with 2 to 10 percent bentonite clay; or a commercially available premixed grout; proportioned with clean water as described in Administrative Rule We 604.05(f). Alternatively, 1/4 inch diameter bentonite chips shall be used, except if the well is 6 inches or greater in diameter; whereupon 3/8 inch minimum size chips shall be used.

2.2 Sealing material for wells that are sealed using the pressure grout method shall consist of Portland cement and bentonite grout proportioned per Table 604-1 in Administrative Rule We 604.05(c).

Construction Requirements

3.1 Prior to decommissioning, the well should be investigated to determine its condition, the details of construction, and whether or not any obstructions exist that could interfere with the decommissioning process. The depth of the existing well shall be measured and recorded by the Design-Builder in the presence of the Engineer. Other information, such as the groundwater level and casing diameter, shall be recorded by the Design-Builder for inclusion in the Abandoned Well Report.

3.2 The Design-Builder shall remove existing miscellaneous hardware from the monitoring well, including caps, tubing, samplers, etc. If possible, well casing shall be removed prior to sealing otherwise it shall be cut off a minimum of one foot below finished grade.

3.3 The monitoring well shall be sealed using one of the grout materials listed in 2.1, unless the well poses a continuing contaminated hazard or is salt contaminated, then it shall be sealed with the grout specified in 2.2.

3.3.1 A monitoring well identified as contaminated shall only be sealed by the pressure grout method, as described in Administrative Rule 604.05(c), using a tremie pipe from the bottom of the well to within one foot of ground level.

3.3.2 When bentonite chips are used for sealing the well, the chips shall be applied per the manufacturer's specification and clean water shall be added in the filling process per the manufacturer's recommendation to assist in hydration of the clay.

3.4 The well cover, typically a road box or riser pipe, shall be removed and the resulting hole shall be backfilled and hand compacted. If removal is in a paved area, at least 8 inches of sand or gravel backfill shall be placed covered by asphalt cold patch equal in thickness to the existing pavement. The resulting backfilled area or pavement patched location shall be level with the adjacent ground surface.

3.5 Hardware, casing, well cover, and any other material removed from the well shall become property of the Design-Builder unless otherwise noted, and they shall be disposed of properly according to current State and Federal regulations.

3.6 Per Administrative Rule We 602.02, an Abandoned Well Report shall be completed by the licensed water well contractor and submitted to the NHDES Water Well Board. The report can be found at: <http://des.nh.gov/organization/divisions/water/dwgb/wwb/categories/forms.htm>.

3.7 A copy of the completed Abandoned Well Report shall be provided to the Engineer for inclusion with the project records.