Environment Department approves Stage 1 Abatement Plan to investigate groundwater contamination at former power generating station

SANTA FE – The New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) has approved a Stage 1 Abatement Plan for the investigation of contaminated groundwater at the former Public Service Company of New Mexico (PNM) Santa Fe Generating Station.

The site is located near Baca Street and Cerrillos Road in Santa Fe on a 15-acre parcel owned by PNM. PNM submitted the abatement plan as required by New Mexico Ground and Surface Water Protection Regulations (20.6.2 NMAC) and it proposes actions to investigate and characterize groundwater pollution found at the site. Groundwater at the site is not used for drinking water and is located approximately 223 to 312 feet below the surface.

In 1988, PNM discovered elevated concentrations of fuel constituents including benzene and ethylene dibromide (EDB) in a public drinking water well owned by PNM at the site. PNM and NMED conducted an environmental investigation but were unable to conclusively identify the source of the benzene and EDB and PNM shut down the drinking water well. In 1989, PNM put a treatment system on the drinking water well and reactivated it. The City of Santa Fe, which currently owns the well, took the drinking well out of service more than five years ago for several reasons, including its age.

During further investigation of the fuel release at the site in 1989, PNM discovered chlorinated solvents in groundwater. Between 1988 and 2018, PNM has worked with the GWQB and the NMED Petroleum Storage Tank Bureau (PSTB) to characterize the fuel and solvent plumes. PNM submitted the new abatement plan to the GWQB to address the solvent pollutants, specifically tetrachloroethylene, trichloroethylene, 1,1-dichloroethylene, vinyl chloride, methylene chloride and carbon tetrachloride, which are not addressed by PSTB regulatory oversight.

The abatement plan also addresses nitrate contamination that PNM caused by initiating an in-situ bioremediation strategy between 1998 and 2002 to address the fuel contaminants discovered in the investigations that began in 1988. This strategy injected hydrogen peroxide and “Restore 375,” a proprietary bionutrient formulation, into groundwater at the site. A nitrate plume was generated as a byproduct of this process. PNM conducted the in-situ bioremediation under a groundwater discharge permit which required PNM to address any additional impacts that might be caused by the remediation effort.

PNM has summarized all previous investigations and responses to fuel spills and leaks at the site in the Stage 1 Abatement Plan, along with all corrective actions that PNM has completed to date. Once PNM completes the characterization activities, NMED will require a Stage 2 Abatement Plan that outlines clean-up strategies to remediate groundwater contamination at the site. While the abatement process is iterative, and may require more monitoring wells for characterization purposes, the NMED expects that PNM will submit a Stage 2 Abatement Plan in 2022.

The plan may be viewed at https://www.env.nm.gov/gwb/NMED-GWQB-PublicNotice.htm. For more information, contact Justin Ball, State Cleanup Program Team Leader, at 505-222-9522 or justin.ball@state.nm.us.
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Kristine Yurdin, Non-Discrimination Coordinator
New Mexico Environment Department
1190 St. Francis Dr., Suite N4050
P.O. Box 5469
Santa Fe, NM 87502
(505) 827-2855
nd.coordinator@state.nm.us

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