

Potential for groundwater contamination at the Comanche Peak Nuclear Power Plant

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There is insufficient time to perform a thorough review of the groundwater system and assess the potential for groundwater contamination at the Comanche Peak Nuclear Power Plant. However, some of the radionuclides that are used in or produced by the plant, such as uranium, radium, and tritium, are known to be mobile in groundwater. If released from the plant or associated facilities, these radionuclides may contaminate the local groundwater system and any lakes and streams to which the groundwater discharges.

Section 5.2.3.5, entitled *Impacts to Groundwater*, states “There are two sources for radiological impacts to groundwater: (1) leaks from radioactive waste tanks, ponds, and piping, and (2) leaks from the spent fuel pool.” However, there is at least one more potential source of groundwater contamination. Any contaminants that migrate to Squaw Creek Reservoir (SCR) could affect underlying bodies of groundwater. But, the potential of groundwater contamination from SCR is not considered. The failure to assess the potential for groundwater contamination from SCR is an omission in the Environmental Report and requires further consideration.

My 2004 report, entitled *New Mexico’s Right to Know: The Potential for Groundwater Contaminants from LANL to Reach the Rio Grande*, addressed whether it was possible for groundwater to transport contaminants from Los Alamos National Laboratory (LANL) during the 61 years LANL has existed and if so, whether the contaminants from the LANL have reached the Rio Grande. The analysis found that contaminants from LANL have entered the groundwater and that groundwater from LANL flows toward the Rio Grande. Moreover, the analysis found that it is possible for groundwater, and at least some of the contaminants it transports, to travel from contaminated areas at LANL to the Rio Grande during the 61 years LANL has existed. Contaminants from LANL have reached springs discharging to the Rio Grande.

These results from the above-mentioned analysis demonstrate why a study of this nature would be important in the case of Comanche Peak. A full analysis of the groundwater system at Comanche Peak is essential to discern the potential for radionuclides contaminating the local

groundwater system and any lakes and streams to which the groundwater discharges. The 60-day time period is insufficient to perform a thorough review of the groundwater system and assess the potential for groundwater contamination from SCR and the operation of the Comanche Peak Nuclear Power Plant Units 3 & 4.