

Discussion of NRC requirements for water inventory needed to maintain safety of Comanche Peak Nuclear Power Plant

The Nuclear Regulatory Commission (NRC) has established requirements to Comanche Peak Nuclear Power Plant (Comanche Peak) and other licensees for the conditions necessary to safely operate, shutdown, and cooldown a nuclear power plant. The requirements also specify that a water source be available at all times during plant operations to provide sufficient cooling for at least 30 days to cool down the nuclear reactor(s) and maintain them in a safe shutdown condition.

The NRC does not require Lake Granbury water levels be maintained above a minimum level because level in that lake does not affect the safe shutdown of Comanche Peak Units 1 and 2. During the licensing of Comanche Peak Units 1 and 2, the NRC required and approved design and technical specifications that prescribed how the nuclear reactors were to be operated and safely shutdown. These specifications require that Comanche Peak maintain a water level of 770 feet above mean sea level in the body of water which is formed by a cove of the Squaw Creek Reservoir and is retained by a seismically qualified dam. Maintaining this water level ensures that enough water will be available (30 day supply) under all considered scenarios to provide cooling for safe shutdown of both units without relying on water from Lake Granbury in an emergency.

Although no license has been granted for Comanche Peak Units 3 and 4, design requirements and specifications would likely be similar. Therefore, the water levels in Lake Granbury would not affect their safe operation or shutdown and cooldown and they would not depend on water from Lake Granbury in an emergency.