ENVIRONMENTAL IMPACT APPRAISAL BY THE

OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENTS NO. 2 TO CPPR-126 AND CPPR-127

TEXAS UTILITIES GENERATING COMPANY

COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

Description of Proposed Action

By letter dated June 15, 1979, the Texas Utilities Generating Company (TUGCO) submitted a proposed change to the Construction Permits Nos. CPPR-126 and CPPR-127 for the Comanche Peak Steam Electric Station. The proposed change was requested to amend condition 3.E(8) in the Construction Permits to authorize withdrawal of groundwater during construction for an additional year. Construction Permit Condition 3.E(8) provides, in pertinent part, as follows:

> (8) The rate of groundwater withdrawal during construction of facility shall not exceed 250 gpm. Withdrawal of groundwater shall be reduced to an annual average of 30 gpm at the end of five years.

The Construction permit was received by TUGCO in December 1974. Thus, the 5 year, 250 gpm, condition will expire in December 1979. At that time, TUGCO should reduce its pumping rate to 30 gpm.

The reason for requesting this change is that construction of Unit 1 has not been completed as projected five years ago. Construction is now projected by TUGCO to be completed by the end of 1980. TUGCO claims and the staff agrees that decreasing the rate of groundwater withdrawal from 250 gpm max. to 30 max. would cause substantial construction delays resulting in cost increases.

Environmental Impacts of Proposed Action

The NRC staff has reviewed and analyzed the data provided by TUGCO with its amendment request together with pertinent data contained in the ER, FSAR, and the CP-SER. These analyses show that although TUGCO is authorized to withdraw groundwater at a rate of 250 gpm, the actual withdrawal rate during the pumping period from 1974 to 1978 has averaged only 155 gpm. As of May 1979, a total of 3.63×10^8 gallons had been pumped. During this time, groundwater levels in the four observation wells at the site declined 22 feet, 24 feet, 30 feet, and 41 feet. These declines correspond to an average water level drop of about 5 to 10 feet per year. Records obtained from the Texas Department of Water Resources (TDWR) show that groundwater levels in the area were declining long before CPSES began using groundwater. Groundwater declines in north-central Texas have totaled several hundred feet in this century. Based on this, the staff has concluded that water level declines of 5 to 10 feet per year as computed previously are not entirely due to the CPSES pumping. Part of these declines is due to regional pumping.

The nearest existing offsite well (Figure 2.4-35 of the FSAR) is about 8000 feet from the CPSES. TUGCO's groundwater observation well (No. OB-3) is located at the west site boundary, very close to the offsite well. Based on water level records for observation well No. OB-3, the staff has estimated that the decline in water levels at the nearest offsite well, due to pumping at CPSES at a rate of 155 gpm, for an additional year would be about three feet. For a 250 gpm rate, the decline would be about five feet.

By the terms of the construction permits, the staff authorized TUGCO to withdraw groundwater at a rate not to exceed 250 gpm. This amounts to a total volume of 6.57×10^8 gallons during the construction period of five years. Actual plant construction has not proceeded at the rate originally anticipated so withdrawal of groundwater has averaged only about 155 gpm. This amounts to a total volume of about 3.63×10^8 gallons over this period of time. TUGCO now requests that it be permitted to withdraw groundwater for an additional year at a rate not to exceed 250 gpm.

This will amount to a total one year usage of about 1.31×10^8 gallons. Combining this with what has been used during the past five years results in a total of 4.94×10^8 gallons which is still well below the original authorization of pumping 6.57×10^8 gallons of water over the projected five year construction period.

Additional factors considered in our evaluations:

1. TUGCO will construct a surface water treatment plant which will supply the necessary 300 gallons of process water per day for operation. It is estimated that this plant will be operating by June 1980.

2. TUGCO has advised the staff that those construction activities which require the most water, i.e., processing, placement and curing of concrete, have already been completed. Therefore, actual use of groundwater for an additional year will probably be less than 155 gpm so the corresponding groundwater decline will be less than the estimated three feet.

3. Complete cessation of pumping at CPSES would probably lead at least to a short term recovery of water levels in the immediate vicinity of the plant. Eventually, however, water levels would continue at regional rates as influenced by other centers of high pumpage in the area.

Conclusion

On the basis of the foregoing analysis, it is concluded that there will be no environmental impact attributable to the proposed action other than has already been predicted and described in the Commission FES for the Construction Permit. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.