



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:

NEPA-DE-NRC-F06018-IL
(84005)

MAR 12 1984

Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
United States Nuclear
Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

We have completed our review of the Draft Environmental Impact Statement related to the Operation of Braidwood Station Units 1 and 2 in Will County, Illinois. This nuclear power plant will employ two pressurized water reactors to produce up to 6850 megawatts of thermal energy. Two steam turbine-generators will use this heat to provide 2240 megawatts of electrical power. Exhaust steam will be condensed by cooling water circulated from a cooling pond. Makeup and blowdown will be taken from a discharged to the Kankakee River.

Based upon our review of the Draft EIS and reference documents, we do not have any major objections to the operation of the Braidwood Station however, additional information should be provided in the Final EIS regarding the radioactive waste treatment systems and maintenance of the soil erosion control programs implemented at the time of construction. We have rated our detailed comments on the Draft EIS, which are attached, as LO-2. Specifically this means that we have no objections to the proposed operation of the nuclear power station and that additional information is necessary regarding the topics cited above.

We appreciate your providing us the opportunity to review this Draft EIS. If you have any questions regarding our comments please contact Mr. Bill Franz at 886-7500 (FTS) or 312-886-7500 (Commercial).

Sincerely yours,

Larry G. Reed, Deputy Director
Planning and Management Division

Enclosure

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U.S. Environmental Protection Agency Region V's
Comments on the Draft Environmental Impact Statement
Related to the Operation of the Braidwood Station Units 1 and 2

The proposed action is the issuance of an operating license to the Commonwealth Edison Company (CECo) for the startup and operation of Units 1 and 2 of Braidwood Station, located near the Kankakee River in Reed Township, Will County, Illinois, 2.3 km (1.4 mi) south of Braidwood and 32 km south-southwest of Joliet, Illinois.

The plant will employ two pressurized water reactors to produce up to 6850 megawatts of thermal energy (MWt). Two steam turbine-generators will use this heat to provide 2240 MW (net) of electrical power capacity. The maximum design thermal output of the units is 7130 MWt, with a corresponding maximum calculated electrical output of 2330 MWe. The exhaust steam will be condensed by cooling water circulated from a cooling pond. Makeup and blowdown water (i.e., water to replace that lost by evaporation and water to control the buildup of dissolved solids, respectively) will be taken from, and discharged to, the Kankakee River.

Radiological Impacts

The Draft Environmental Impact Statement (EIS) description of the radioactive waste treatment system and the Nuclear Regulatory Commission staff's evaluation was insufficient for a detailed analysis. The Draft EIS referenced the Safety Evaluation Report (SER) which has not been completed. We recommend that the Safety Evaluation Report be completed prior to the issuance of the Final EIS in order to permit thorough evaluation of the radioactive waste treatment system.

In view of the concern for development of nuclear waste disposal sites for solid waste, the section of the report on "Radioactive Waste Management" in the SER needs to be completed. The Draft EIS refers to Section 11 of the SER for the presentation of the staff's detailed evaluation of the solid radioactive waste system and its capability to accommodate the solid wastes expected during normal operations as well as emergency situations. However, Section 11 of the SER has not been completed.

Based upon our review of the available information it appears that the radioactive waste treatment systems are capable of controlling emissions to levels such that, when the direct radiation is considered, operations will still be within the EPA Environmental Radiation Standards, 40 CFR 190.

The Draft EIS does not address the problem of storing the high level waste. The impact of "away from reactor" and/or "at the reactor" storage needs to be controlling emissions to levels such that when the direct radiation is considered, operations will still be within the EPA Environmental Radiation Standards (40 CFR 190).

In view of the concern for development of nuclear waste disposal sites for solid waste, the section of the report on "Radioactive Waste Management" in the SER needs to be completed. The presentation of the staff's detailed evaluation expected during normal operations, including anticipated operational occurrences needs to be made.

Water Quality Impacts

During construction of the Braidwood station erosion control programs were developed and implemented by the Commonwealth Edison Company. As part of the scoping process for this Draft EIS, we participated in a site visit to the Braidwood Station. While on this site visit, we noticed several areas where the measures to control soil erosion had failed and rill and gulleys were the result. Islands in the cooling pond were also void of vegetation and were eroding. Commonwealth Edison needs to better maintain the soil erosion program. Minimization of suspended solids in the cooling pond should also improve the efficiency of the power plant's cooling system.