

SAFETY EVALUATION OF REQUEST FOR EXTENSION OF  
CONSTRUCTION PERMIT NO. CPPR-84  
FOR THE WILLIAM B. MCGUIRE NUCLEAR STATION, UNIT 2  
DOCKET NO. 50-370

INTRODUCTION

On February 28, 1973, Duke Power Company (the permittee) was given authorization to begin construction of the William B. McGuire Nuclear Station, Unit 2. Construction was to be completed by March 1, 1977. In response to requests from the permittee, the Commission issued Orders dated August 3, 1976, and December 26, 1978, extending the latest date for completion of construction.

On March 30, 1979, the permittee requested a third extension of the construction completion date, stating that its schedule for operation had been revised for various reasons. The permittee requested an extension of the construction completion date from December 31, 1980, to December 31, 1981. In its letter dated November 30, 1979, the permittee submitted information which discussed the details concerning the construction delays and requested a further extension until July 31, 1982. Subsequently, its November 26, 1980, letter requested an extension until June 30, 1983.

DISCUSSION

Duke Power Company attributes the delay to (1) diversion of construction effort from Unit 2 to Unit 1, (2) pipe hanger problems, (3) modifications resulting from the testing of components/systems, (4) preoperational testing, (5) ice condenser activities, (6) environmental qualification modifications, and (7) the impact due to the accident at Three Mile Island Unit 2.

- (1) A major portion of the construction effort was diverted from Unit 2 to expedite completion of Unit 1 which was issued an operating license on January 23, 1981, and is now operating.
- (2) The permittee is conducting a reinspection program for its 1200 design hangers to be erected for all of the Unit 2 design hangers not erected. This was done to alleviate problems arising from different interpretations of hanger tolerance specification and to comply with more stringent erection requirements. A program has been developed and implemented which requires "as built" sketching of the hanger prior to the inspection.

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- (3) The additional hanger work has required additional manpower and time and may have an impact on the testing of equipment in the future, including the diesel generator load sequencer, pressure operated relief valve and block valve, engineered safety features, and accumulator testing. The permittee stated that other modifications have been or will be made to the steam generator, liquid waste recycle system and waste gas system, upper head injection guard pipe, and personnel air lock doors.
- (4) An additional delay is caused by the limited hot functional testing program the applicant will perform. Hot functional tests have been completed for the majority of the testing required; however, the permittee plans to conduct another limited testing program on certain systems prior to fuel loading. This could be a critical path item.
- (5) Due to the sublimation rate of the ice in the ice condenser following the initial ice loading in Unit 1, the permittee decided to completely melt the ice and reload to substantially increase the weight of ice at the start of unit operations diverting manpower from Unit 2 activities. In addition, the permittee reported other modifications it made to reduce the sublimation previously experienced.
- (6) Components which are not environmentally qualified were either replaced or modified. This included identification of all components which should be environmentally qualified, determination of required modifications or need for replacement of components already identified, and completion of other identified modifications.
- (7) The permittee anticipates additional requirements for licensing will be imposed by the staff as a result of evaluation of the accident at Three Mile Island Unit 2. It expects these requirements may impact the issuance of operating licenses.

CONCLUSIONS

Based on our review of Duke Power Company's requests, we concluded that the above factors are reasonable and that Duke Power Company has shown good cause for the delay in completion of the construction. Based on our evaluation of the causes for the delay, we have determined that the requested extension is for a reasonable period of time.

As a result of our review of the McGuire Final Safety Analysis Report to date and considering the nature of the delays, we have identified no area of significant safety considerations in connection with the extension of the construction completion date. In addition, we find that the only modification proposed by Duke Power Company to the existing construction permit is an extension of the construction completion date which does not allow any work to be performed involving new safety information of a type not

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considered by a previous Commission safety review of the facility and that is not already allowed by the existing construction permit. Therefore, we find that (1) this action does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by extension of the construction completion date, and (3) good cause exists for the issuance of an order extending the completion date.

Accordingly, issuance of an order extending the latest completion date for the construction of the William B. McGuire Nuclear Station, Unit No. 2 to June 30, 1983, is reasonable and should be authorized.

Principal Contributor: Ralph Birkel, Licensing Branch No. 4, DOL

Dated: September 2, 1982

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September 2, 1982

EXTENSION OF CONSTRUCTION COMPLETION DATE MCGUIRE NUCLEAR STATION, UNIT 2

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