

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

November 7, 1978

TELEPHONE: AREA 704
373-4083

Mr. Harold R. Denton
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: McGuire Nuclear Station
Units 1 and 2
Docket Nos. 50-369 and 50-370

Dear Mr. Denton:

My letter of June 29, 1978 applied for an extension of time for completion of McGuire Nuclear Station Units 1 and 2 until January 15, 1979 and October 15, 1979, respectively. Since my last letter, the construction and preoperational testing schedule for Unit 1 has been re-evaluated and several critical path activities have been re-scheduled. One of the major changes was deferment of the containment integrated leak rate test until after hot functional testing. As a result, the projected fuel loading date for Unit 1 is now February 1, 1979.

The following is a discussion of some of the causes for the delay in completion of Unit 1. A precise quantitative assessment to determine the effect of each of these items on the schedule has not been performed and is not practical. The purpose of the discussion of these items is to characterize the types of problems that have been experienced and demonstrate that good cause exists for the delay.

1. Pipe Hanger Problems

Bergen-Paterson previously had the contract to furnish all pipe support and restraint materials for McGuire. In addition, they also designed some of the supports and restraints outside of the reactor building. With the cancellation of the contract with Bergen-Paterson in 1976, Duke instituted a program of checking and evaluating all of the piping supports and restraints for which Bergen-Paterson provided either materials or design information. (See W. O. Parker letter of August 20, 1976 to Dr. Ernst Volgenau which transmitted construction deficiency CD-369/76-6, -370/76-5.) Duke then undertook responsibility for design and material procurement which Bergen-Paterson previously handled. In order to accomplish this, it was necessary to obtain additional manpower, a process which took approximately six months. Although it is impossible to measure exactly, it is estimated that this problem alone caused a three to five month delay in the overall schedule.

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2. System Changes

Numerous changes to various systems have been made over the last two years which have caused delays in releasing design drawings and necessitated re-working of systems which had previously been completed. These changes were required for a variety of reasons including (1) regulatory requirements, (2) proper system operation, (3) operational flexibility and (4) correction of deficiencies observed in preoperational testing. The following is a discussion of several of the more significant changes:

a. Auxiliary Feedwater System

A new auxiliary feedwater connection was added to each of the steam generators. Extensive piping design changes, including new containment penetrations, were required to utilize the new connections. The purpose of these modifications was to minimize the potential for water hammer in the steam generators.

Changes to the suction piping and valves on the auxiliary feedwater system were made to assure availability of water to the auxiliary feedwater pumps under all conditions. This involved addition of new piping to the system and control system changes to the motor operated pump suction valves. (See W. O. Parker letter of April 12, 1978 to J. P. O'Reilly which transmits construction deficiency CD-369, -370/78-02.)

b. Fire Protection

As a result of the NRC review of the McGuire fire protection program, approximately 30 hose stations were added and additional sprinklers were installed in the nuclear service water pump area, component cooling water pump area, residual heat removal pump rooms and corridors, cable room and battery room. Also, additional fire detection equipment, fire barriers and emergency lighting were installed to meet NRC requirements.

c. Containment Isolation Valves

During preliminary leak rate testing of containment isolation valves, it was determined that several types of valves were not capable of meeting the established leakage acceptance criteria. Correction of this deficiency involved the replacement of approximately 26 valves and seat replacement in another 48 valves. (See W. O. Parker letter of August 30, 1978 to J. P. O'Reilly which transmits construction deficiency CD-369, -370/78-06.)

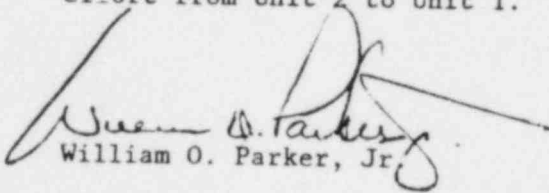
3. Preoperational Testing

Approximately 40 of 149 preoperational tests have been completed to date. Substantial problems were encountered in several tests which resulted in delays in completing the tests. The tests listed below are examples of tests that fall in this category:

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<u>Test</u>	<u>Start Date</u>	<u>Expected Completion Date</u>	<u>Actual Completion Date</u>
Reactor Coolant System Hydro- static Test	8/5/78	8/10/78	8/24/78
Component Cooling Functional Test	12/15/77 (Completion delayed pending replacement of containment isolation valves)	1/1/78	Not Completed
Upper Head Injec- tion System Func- tional Test	2/14/78	2/21/78	7/15/78
Diesel Generator Testing	8/1/78 (Testing delayed pending correction of several deficien- cies observed in preliminary tests)	9/15/78	Not Completed
Auxiliary Electric Boiler	1/15/78	2/1/78	10/1/78
Ice Loading and Weighing Operation	2/20/78 (Completion delayed pending reinstallation of structural steel in intermediate deck door area.)	7/20/78	Not Completed

In recognition of the revised fuel loading date and to allow for contingencies, it is requested that the completion date specified in CPPR-83 for Unit 1 be extended to April 30, 1978. It is further requested that the completion date specified in CPPR-84 for Unit 2 be extended until December 31, 1980 to allow for the delay which has resulted from the diversion of construction effort from Unit 2 to Unit 1.


William O. Parker, Jr.

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