

John D. O'Toole
Vice President

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October 29, 1984

Re: Indian Point Unit No. 2
Docket No. 50-247

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTN: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Dear Mr. Varga:

Your letter received by this office on August 9, 1984 requested licensee clarification and additional information regarding our submittal dated February 14, 1983 concerning proposed technical specification revisions of control of heavy loads during refueling. In response to this request, Attachment A to this letter provides additional supporting and clarifying information to address each of your questions.

We believe that the information provided in the Attachment to this letter is responsive to your requirements. Should you or your staff have any further questions, please contact us.

Very truly yours,

Richard P. Renshaw
for
John D. O'Toole

attach.

cc: Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 38
Buchanan, New York 10511

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ATTACHMENT A

RESPONSE TO NRC REQUEST
FOR ADDITIONAL INFORMATION
CONCERNING OUR FEBRUARY 13, 1983
PROPOSED TECHNICAL SPECIFICATION
REVISIONS FOR REFUELING ACTIVITIES

ITEM 1

The individual specifications of the existing Technical Specification have been split into 3 groups, representing 3 different physical stages of the refueling process. In making the groupings, the applicability of the safety requirements to the physical status of the refueling for that stage is more confused in the Proposed Technical Specs (PTS) than in the existing Technical Specs (TS). Some of the safety requirements in group A, which also apply to group B, are not repeated or referenced in group B and vice versa.

For example, Re: B.1. "The reactor Tavg shall be less than or equal to -140°F".

Re: B.2. "The minimum boron concentration shall be sufficient to maintain the reactor subcritical by at least 10% $\Delta k/k$ ".

Re: B.8. "The equipment door and at least one door in each personnel air lock shall be properly closed. In addition,..... which provides a direct path from containment atmosphere to the outside".

The above 3 safety requirements apply to both groups A and B but do not appear in group A.

RESPONSE

The three specifications cited above B.1, B.2 and B.8 only apply to Group B, not Group A. This is not a change from our present technical specifications. The existing Section 3.8 of the Technical Specifications addresses "Refueling Operations" which is strictly defined as "movement of core components." In fact, the proposed revision of Section 3.8 of the Technical Specification encompasses more than the entire present Section 3.8. The purpose of separating group A and B was to

identify those requirements that would be in effect whenever the reactor vessel head is less than fully tensioned, regardless of whether or not fuel, core components or heavy loads are being lifted and to identify (in Group B) those requirements that only apply when such movements are taking place (similar to the existing Section 3.8). For example, a 1% Δ k/k shutdown margin is required when the Reactor Vessel Head is not removed but less than fully tensioned (Group A requirement). Whereas, a 10% Δ k/k shutdown margin is required when the Reactor Vessel Head is removed and loads handling (Reactor Vessel Head, fuel assemblies, etc.) is taking place (Group B requirement). We believe that this graded approach (i.e., Group A requirements precede those of Group B) is appropriate and is consistent with our present technical specifications.

We disagree that the approach taken in the proposed technical specifications is confusing. In fact, this approach was recommended by plant personnel purposely to avoid confusion.

ITEM 2

The availability of two independent RHR loops is required in the PTS when the water level is less than 23 feet above the RPV flange. This new requirement is placed in group A but is not repeated in Group B of the PTS. If it is to be assumed that status A precedes status B and, therefore, the conditions of A also apply to B, please so state.

RESPONSE

Your statement that the requirements of Group A precede those of Group B is correct. Actually, Group B is a subset of Group A and, therefore, the conditions of Group A do apply to Group B.

ITEM 3

Specification B5 of the PTS deals with the dead load test of the "fuel storage building refueling crane." This crane is to perform refueling operations. According to section 9.5 of the FSAR (Ref. 5), there is a Manipulator Crane, composed of a bridge and trolley and a winch and there also is a Spent Fuel Pit Bridge. It does not mention the refueling crane.

Another crane, not mentioned in Section 9.5, but shown on FSAR Figure 1.2-8, is the 40 ton crane of the Spent Fuel Pit Building. This crane is used to transport the spent fuel cask and fuel storage racks.

It is not clear what the function of the "fuel storage building refueling crane" is. If this crane is used in the refueling operations and it is not the same crane as either of the two mentioned cranes, it should be added to the Section 9.5 of the FSAR which describes the refueling system and refueling operations. It would also raise the question as to what is to be done with the Manipulator Crane and the Spent Fuel Pit Bridge to prove that they are in operable condition prior to refueling.

If the crane mentioned under 3.8.B5 is not the Spent Fuel Pit Bridge should not this crane (and hoist) and its electrical interlocks, if any, be demonstrated to be operable prior to any spent fuel movements?

If the crane mentioned under 3.8.B5 is the 40 ton crane of the Spent Fuel Pit Building should not this specification be expanded to include the testing of electrical interlocks and stops, if any, for operability?

RESPONSE

The wording used in our proposed technical specification is identical to wording that has existed in the technical specifications since original license issuance. In the past application of this technical specification, there has never been any confusion as to which crane it applies to nor the testing to be performed. The refueling crane specified in 3.8.B.5 is the Spent Fuel Pit Bridge with its associated hoists. The Spent Fuel Pit Bridge is a wheel-mounted walkway, spanning

the spent fuel pit, which carries an electric monorail hoist (1 ton) on an overhead structure. The hoist travel is designed to limit the maximum lift of a fuel assembly to a safe shielding depth and to prevent the hoist safety hook from entering the water. The interlocks of the spent fuel pit bridge hoist are tested each refueling shutdown prior to refueling operation to determine their functional status. This requirement is specified in Table 4.1-3 of the technical specifications.

ITEM 4

In view of the importance of the existing safety features of the Manipulator Crane in preventing load drop accidents and the importance of this subject to "expand on the heavy load movements", should there not be a separate specification under 3.8.B for a load test of the Manipulator Crane prior to any use of this crane for refueling operations or any other fuel movement operation? For the same reason the crane interlocks and physical or electrical stops which prevent unwanted crane or hoist travel as well as electrical load cut offs which prevent pick up of excessive loads, should they not be tested for operability prior to the use of the crane for refueling operations?

ITEM 5

Another crane, not mentioned in Section 9.5 but important to the refueling operations, is the Polar Crane. It is used to lift the reactor vessel head and the reactor vessel upper internals. The removal of these reactor vessel components is the first major refueling operation and it involved the movement of heavy loads over the exposed reactor core. It appears that this facet of the refueling operation is an important part of the licensee's task to "expand on the heavy load movements."

Should not the Polar Crane be load tested prior to the start of refueling or other operations for a load equal to the heaviest item to be lifted during the refueling operation or other operation? Should not the operability of the crane and its electrical interlocks be demonstrated as well at that time? Should not the tests be followed by a thorough visual examination?

RESPONSE TO ITEM 4 and 5

Our February 14, 1983 proposed technical specification change request addressed and responded to those specific areas of refueling technical specification requirements delineated in the NRC letters dated July 7, 1980 and August 15, 1980. In both of these letters, NRC provided sample technical specifications and a request that we review our existing technical specifications against the sample and propose a Technical Specification change request for the identified areas in which the existing specifications needed expansion.

Specifically, the July 7, 1980 letter limited its request to incorporate improvements to our existing Technical Specifications in the following areas:

1. restricting the movement of any heavy load over spent fuel in the storage pool, and
2. providing a minimum water level (23 feet) above fuel in spent fuel storage pool.

The August 15, 1980 letter requested revisions to the existing Technical Specifications to require at least 23 feet of water over the top of the reactor pressure vessel flange during movement of fuel assemblies or control rods.

Our February 14, 1983 technical specification change request incorporated all of these requirements. We believe that the questions posed by the above Item 4 and Item 5 address areas beyond the scope of the requirements requested by NRC in their July 7, 1980 and August 15, 1980 letters.

Con Edison's compliance with respect to control of heavy loads movement over core components and other safety related equipment, as directed by NUREG-0612 guidance, is described in our submittals of June 22, 1981 and

December 3, 1981 and is currently undergoing review by NRC. Any additional technical specification requirements for heavy load movement for which existing Technical Specifications might need expansion should appropriately result from the NRC (NUREG-0612) review of heavy loads for Indian Point Unit No. 2.