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JUL 2 4 1984

Docket Nos. 50-266
and 50-301

Docket File
NRC PDR
Local PDR
ORB#3 Rdg
DEisenhut
OELD
EJordan
JNGrace
TColburn
PMKreutzer
ACRS (10)
C. P. Tan
G. Lear
G. C. Lainas
J. Knight

Mr. C. W. Fay, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 West Michigan Street
Room 308
Milwaukee, Wisconsin 53201

Dear Mr. Fay:

We have completed our initial review of your May 2, 1984 amendment application for proposed Point Beach Units 1 and 2 Technical Specification changes relating to containment tendon surveillance. Our comments are contained in the enclosure. As your submittal differs from current staff guidance on containment tendon surveillance, we request that you either modify your submittal to address the staff comments or provide acceptable justification for not doing so. A copy of the current standard technical specification on containment tendon surveillance is also enclosed for your use.

In order to facilitate our review schedule, your response is requested within 45 days receipt of this letter. If you have any questions, please contact your NRC project manager, T. Colburn at (301) 492-4709.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by:

James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosures:
1. Staff Comments on Tendon Surveillance T. S. Change
2. Standard T.S. for Containment Tendon Surveillance

cc: See next page

ORB#3:DL	ORB#3:DL	ORB#3:DL
PKreutzer	TColburn:jd	JRMiller
7/19/84	7/19/84	7/ /84

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PDR ADOCK 05000266
P PDR

cc:
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Chairman
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6612 Nuclear Road
Two Rivers, Wisconsin 54241

Enclosure 1

STAFF COMMENTS ON TENDON SURVEILLANCE TECHNICAL SPECIFICATION CHANGE REQUEST

POINT BEACH UNITS 1 AND 2

DOCKET NOS. 50-266 AND 50-301

The following comments on the Tendon Surveillance Technical Specification change request are based on the technical specification currently adopted for ungrouted tendon surveillance.

1. Section C(1) Page 15.4.4-9

   The visual inspection should also cover exposed accessible interior and exterior surfaces of the containment including the liner plate and should be performed for each Type A containment leakage rate test.

2. Section C(2) b. Page 15.4.4-9

   The predicted lower limit of the prestressing force of the tendon in a tendon group should be established and provided.

3. Section C(2) d. Page 15.4.4-10

   The minimum tensile strength of the wires used should be indicated.

4. Section C(2) e. Page 15.4.4-10a

   Instead of using the term "significant voids" a more definitive value should be provided. Also tolerance limits for chemical and physical properties should be specified.

5. Section D Pages 15.4-10a,-15

   From what is stated in this section it appears that if there is any abnormal degradation of containment integrity, the only action taken is to report to NRC. For the safety and welfare of the general public, safe shutdown of the reactor may be required under such a condition, unless the tendon surveillance is performed during reactor shutdown.

CONTAINMENT SYSTEMS

CONTAINMENT VESSEL STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.6 The structural integrity of the containment vessel shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With more than one tendon with an observed lift-off force between the predicted lower limit and 90% of the predicted lower limit or with one tendon below 90% of the predicted lower limit, restore the tendon(s) to the required level of integrity within 15 days and perform an engineering evaluation of the containment and provide a Special Report to the Commission within 30 days in accordance with Specification 6.9.2 or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With any abnormal degradation of the structural integrity other than ACTION a. at a level below the acceptance criteria of Specification 4.6.1.6, restore the containment vessel to the required level of integrity within 72 hours and perform an engineering evaluation of the containment and provide a Special Report to the Commission within 15 days in accordance with Specification 6.9.2 or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.6.1 Containment Vessel Tendons. The containment vessel tendons' structural integrity shall be demonstrated at the end of 1, 3, and 5 years following the initial containment vessel structural integrity test and at 5-year intervals thereafter. The tendons' structural integrity shall be demonstrated by:

a. Determining that a random but representative sample of at least 11 tendons (4 inverted U and 7 hoop) each have an observed lift-off force within predicted limits for each. For each subsequent inspection one tendon from each group may be kept unchanged to develop a history and to correlate the observed data. If the observed lift-off force of any one tendon in the original sample population lies between the predicted lower limit and 90% of the predicted lower limit, two tendons, one on each side of this tendon should be checked for their lift-off forces. If both of these adjacent tendons are found to be within their predicted limits, all three tendons should be restored to the required level of integrity. This single deficiency may be considered unique and acceptable. Unless there is abnormal degradation of the containment vessel during the first three inspections, the sample population for subsequent inspections shall include at least 6 tendons (3 inverted U and 3 hoop);

SURVEILLANCE REQUIREMENTS (Continued)

b. Performing tendon detensioning, inspections, and material tests on a previously stressed tendon from each group (inverted U and hoop). A randomly selected tendon from each group shall be completely detensioned in order to identify broken or damaged wires and determining that over the entire length of the removed wire that:

1) The tendon wires are free of corrosion, cracks, and damage,

2) There are no changes in the presence or physical appearance of the sheathing filler-grease, and

3) A minimum tensile strength of 240,000 psi (guaranteed ultimate strength of the tendon material) exists for at least three wire samples (one from each end and one at mid-length) cut from each removed wire. Failure of any one of the wire samples to meet the minimum tensile strength test is evidence of abnormal degradation of the containment vessel structure.

c. Performing tendon retensioning of those tendons detensioned for inspection to their observed lift-off force with a tolerance limit of +6%. During retensioning of these tendons, the changes in load and elongation should be measured simultaneously at a minimum of three approximately equally spaced levels of force between zero and the seating force. If the elongation corresponding to a specific load differs by more than 5% from that recorded during installation, an investigation should be made to ensure that the difference is not related to wire failures or slip of wires in anchorages;

d. Assuring the observed lift-off stresses adjusted to account for elastic losses exceed the average minimum design value given below:

Inverted U		139 ksi
Hoop:	Cylinder	147 ksi
	Dome	134 ksi

e. Verifying the OPERABILITY of the sheathing filler grease by assuring:

1) No voids in excess of 5% of the net duct volume,

2) Minimum grease coverage exists for the different parts of the anchorage system, and

3) The chemical properties of the filler material are within the tolerance limits as specified by the manufacturer.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.1.6.2 End Anchorages and Adjacent Concrete Surfaces. The structural integrity of the end anchorages of all tendons inspected pursuant to Specification 4.6.1.6.1 and the adjacent concrete surfaces shall be demonstrated by determining through inspection that no apparent changes have occurred in the visual appearance of the end anchorage or the concrete crack patterns adjacent to the end anchorages. Inspections of the concrete shall be performed during the Type A containment leakage rate tests (reference Specification 4.6.1.2) while the containment vessel is at its maximum test pressure.

4.6.1.6.3 Containment Vessel Surfaces. The structural integrity of the exposed accessible interior and exterior surfaces of the containment vessel, including the liner plate, shall be determined during the shutdown for each Type A containment leakage rate test (reference Specification 4.6.1.2) by a visual inspection of these surfaces. This inspection shall be performed prior to the Type A containment leakage rate test to verify no apparent changes in appearance or other abnormal degradation.