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May 16, 1984

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket Nos.: 50-352
50-353

Subject: Limerick Generating Station, Units 1&2
Information for Auxiliary Systems Branch
(ASB) Concerning Reactor Enclosure Crane

References: Telecon between M. K. Caldwell and
J. H. Arhar (PECO), and J. Ridgely
(NRC/ASB) on 3/28/84.

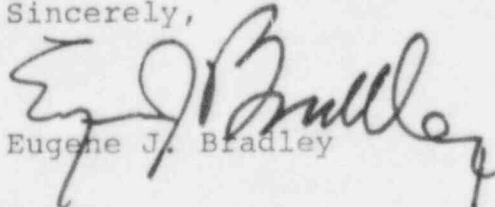
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Dear Mr. Schwencer:

Attached are draft changes to FSAR Section 9.1.5.5.5
and Table 9.1-12 which were discussed in the referenced
telecon concerning reactor enclosure crane performance
testing.

The information contained on these draft FSAR changes
will be incorporated into the FSAR, exactly as it appears
on the attachments, in the revision scheduled for June, 1984.

Sincerely,


Eugene J. Bradley

JHA/gra/050984850

Attachment

cc: See Attached Service List

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PDR ADDCK 05000352
A PDR

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Ms. Phyllis Zitzer	(w/o enclosure)
Judge Peter A. Morris	(w/o enclosure)

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the following procedure: A dimensional check of the hook is performed and the dimensions recorded. The hook is then proof-tested at 200% of its rated capacity. After the test, the hook is given a magnetic particle examination, and its dimensions are rechecked and recorded. The hook is accepted if no cracks, permanent deformation, or other defects are produced by the testing.

9.1.5.5.4 Ropes.

Samples are taken from each wire rope to be used in the crane and are subjected to destructive breaking strength tests to verify that the rope exceeds the manufacturer's published value for breaking strength. At least two such tests are performed on each rope.

9.1.5.5.5 Performance and Acceptance Tests

After erection of the crane in the reactor enclosure, extensive performance and acceptance testing is carried out, including:

- a. Detailed checking of all mechanical and electrical components of the crane to verify proper assembly and operation
 - b. Running-in tests at no load. This test includes all speeds and motions for which the crane is designed plus verification of the proper operation of all limit switches.
 - c. Load testing at 125% of the rated capacity. This test includes the full range of movement for hoist raising and lowering and bridge and trolley travel.
 - d. Performance testing at 100% of the rated capacity. This test includes all speeds and motions for which the crane is designed, plus verification of the proper operation of all limit switches.
- Performance testing at less than 100% of rated capacity will be conducted on the geared upper limit switch, the photo cell that limit movement over the spent fuel pool, and the travel limit switches on the bridge and trolley that prevent movement to the extreme ends of the bridge and trolley rails. (Table 9.1-12, Note - (18))*

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LGS FSAR

TABLE 9.1-12 (Cont'd) (Page 3 of 6)

<u>REGULATORY POSITION</u>	<u>CONFORMANCE</u>	<u>NON- CONFORMANCE</u>	<u>NOTES</u>
p. Trolley and bridge motors	X		
q. Cab located controls	X		
r. Safety devices, limit devices	X		
s. Operating manuals - MWL	X		
t. Change from constr. to operating	X		
u. Installation instructions	X		
<u>C.4 Mechanical Check, Testing and Preventive Maintenance</u>			
a. Mechanical check	X		
b. 125% static test (2-block)			
i. 125% static test	X		
ii. 100% full performances test	X		
iii. 2-block		X	(15)
c. Preventive maintenance	X		
d. Cold proof test	X		(16)
<u>C.5 Quality Assurance</u>	X		(17)

(18)

- (1) Position C.1.a. The load lifts during construction were not greater than those for plant operation, therefore no separate specifications were prepared.
- (2) Position C.1.b(1). Box girders are not of a closed design.
- (3) Position C.1.b(3). The crane manufacturer did not perform impact testing on any structural members.
- (4) Position C.1.b(4). Not applicable - no ASTM A 514 is used.

component failures. Furthermore, such testing violates the ANSI Standard B30.2 and Title 29 CFR, Part 1910.179(k).

A non-destructive examination (NDE) following the cold proof test is performed on 10% of each critical weld. Cold proof testing every 40 months, followed by NDE, will not be performed since the crane operating temperature will not be less than 60°F.

- (17) According to the implementation Section D.2 of the guide, the quality assurance discussion of Paragraph C.5 is not applied to cranes ordered before September, 1976. Although the Limerick crane was ordered in August, 1973, a quality assurance program was required of the vendor. However, this program could not and did not address the recommendations of Paragraphs C.1 - C.4 as suggested in Paragraph C.5.b of the guide.

- (18) A.) The geared upper limit switch will be tested using a 10% load to demonstrate the Adequacy of the limit switch. The geared upper limit switch is only dependent upon the drum position and not the crane load.
- B.) The photo cells that limit movement over the spent fuel pool will be tested using a 0% load to demonstrate the Adequacy of the limit switches. The photo cells are only dependent upon the position of the bridge and trolley and not the crane load.
- C.) The travel limit switches on the bridge and trolley that prevent movement to the extreme ends of the bridge and trolley rails will be tested using a 0% load to demonstrate the Adequacy of the limit switch. The travel limit switches on the bridge and trolley are only dependent upon the position of the bridge and trolley and not the crane load.