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AmerGen SM
An Exelon/British Energy Company

10 CFR 50.90

November 28, 2001
2130-01-20241

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Oyster Creek Generating Station
Docket No. 50-219
Facility Operating License No. DPR-16
Technical Specification Change Request No. 281
Supplement to Response to Request for Additional Information

References: 1) AmerGen Letter No. 2130-01-20042 dated April 4, 2001, "Technical Specification Change Request No. 281"

2) NRC Letter dated August 24, 2001, "Oyster Creek Nuclear Generating Station – Request for Additional Information on Technical Specification Change Request No. 281 – Heavy Loads Over Irradiated Fuel (TAC No. MB1747)"

3) AmerGen Letter No. 2130-01-20211 dated October 12, 2001, "Technical Specification Change Request No. 281, Response to Request for Additional Information"

In Reference 1 AmerGen Energy Company, LLC (AmerGen) requested a change to the Technical Specifications contained in Appendix A to the Facility Operating License regarding restrictions on handling heavy loads over irradiated fuel in the spent fuel storage pool at Oyster Creek. Reference 3 provided AmerGen's response to the additional information requested in Reference 2. Enclosure 1 of this letter provides a supplement to Reference 3 as requested by and discussed with the NRC staff on November 26, 2001. Enclosure 2 of this letter contains page 61 of 63 of Enclosure 1 to Reference 3 and pages 5, 28, 29 and 59 of Enclosure 3 to Reference 3 as these pages were inadvertently omitted from the copy of Reference 3 mailed to the Oyster Creek Project Manager and potentially missing from the original forwarded to the Document Control

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Desk. In addition, a revised Enclosure 5 to Reference 3 consisting of one page is included in Enclosure 2 to this letter correcting a typographical error. The error is discussed in the AmerGen response to NRC Question 7 in Enclosure 1 of this letter. AmerGen regrets any inconvenience the error and omissions may have caused the NRC staff.

Should you have questions or require additional information please contact Mr. Paul F. Czaya at 609-971-4139.

I declare under penalty of perjury that the foregoing is true and correct.

Very truly yours,

11-28-01
Executed On

Ron J. DeGregorio
Vice President
Oyster Creek

Enclosures: 1) Additional Information Supplement
2) Revised Pages for Reference 3

c: H. J. Miller, Administrator, USNRC Region I
L. A. Dudes, USNRC Senior Resident Inspector, Oyster Creek
H. N. Pastis, USNRC Senior Project Manager, Oyster Creek
File No. 01037

Enclosure 1

Oyster Creek Generating Station

Technical Specification Change Request No. 281

Supplement to Response to Request for Additional Information

NRC Question 1

Attachment G, Page G3: Is the live load value of 7 psf, which includes snow load, consistent with the reactor building roof snow load documented in the FSAR?

AmerGen Response

The Oyster Creek Updated Final Safety Analysis Report does not address allowable snow load on the reactor building roof. A roof load of 20 psf was considered in the analysis. Roofing materials account for 13 psf. This leaves 7 psf for other possible loads, including snow.

NRC Question 2

Attachment G, Page G6: Is the weld between the shear lug and base plate controlling? Is the allowable shear force based on the welds? If it is from the shear lug, then provide the weld analysis.

AmerGen Response

The weld between the shear lug and the base plate is controlling for shear. The allowable force is based on the weld shear capacity.

NRC Question 3

Attachment H, Page H2: Are the OBE allowables from the AISC or CMAA code and what are they?

AmerGen Response

(a) For design of the new trolley the OBE allowables are from CMAA#70-1999 and the values for tension are:

Loading: Case 1 = 0.60 F_y
Case 2 = 0.66 F_y
Case 3 = 0.75 F_y

The design calculation determined that the Case 3 load combination controlled the design. Only this load combination was analyzed in detail.

(b) For evaluation of the existing bridge structure the OBE allowable is from CMAA#70-1975. The allowable value for tension stress is 17.6 kips per square inch.

NRC Question 4

Attachment H, Page H9: Provide the derivation of the DLF.

AmerGen Response

The DLF is the ratio of the peak calculated rope force during a broken rope accident on the remaining rope reeving system to the rope force when the system reaches equilibrium.

The peak calculated rope force following a broken rope in one of the two reeving systems is 115,000 pounds.

The calculated rope force when the system reaches equilibrium is 66,250 pounds.

$$DLF = \frac{115{,}000}{66{,}250} = 1.74$$

The broken rope impact load BR in Section 5.2 on page H9 of Enclosure 1 to Reference 3 is BR = LL(DLF-1). This load is combined with the dead and live load.

NRC Question 5

Attachment H, Page H10: How much does the stress interaction ratio exceed 1.33?

AmerGen Response

From the analysis, the interaction ratio exceeds 1.33 by 7.50.

NRC Question 6

Describe the energy absorption method used to justify that the member in Question 5 is adequate.

AmerGen Response

The energy absorption technique determined the plastic hinge rotation capacity using commonly accepted engineering principles and compared it to the demand placed on it. A method of checking the plastic hinge rotation demand versus capacity is to compute the moment that would be required to deform the end truck to the point where the rotation in the connector member reaches its plastic hinge rotation capacity then compare the computed moment against the moment resulting from the seismic analyses. If the seismic analysis moment is smaller, then the rotation demand on the connector member is less than its capacity.

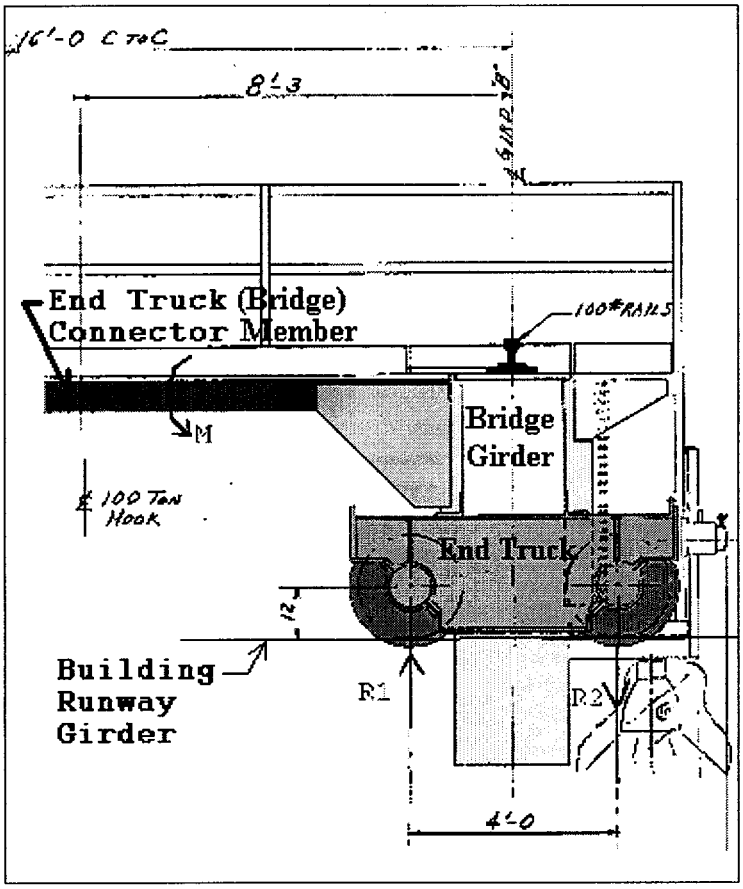

Figure 1 - Elevation View of Typical End Truck and Bridge Connector Member

A free-body diagram representing one of the bridge end trucks and connecting members (illustrated in Figure 1 above) is shown below on Figure 2. Node and element numbers corresponding to the STARDYNE finite element model are marked on Figure 2. Note that the vertical stick member (BM 33) representing the cross section of the bridge girder is modeled as a

very stiff element. The rotation at the top of the truck, θ, is equated to the plastic hinge rotational capacity and the moment at the base of the vertical stick (Node 26) is computed. This calculated moment is then compared to the design moment in Beam 33 at Node 26.

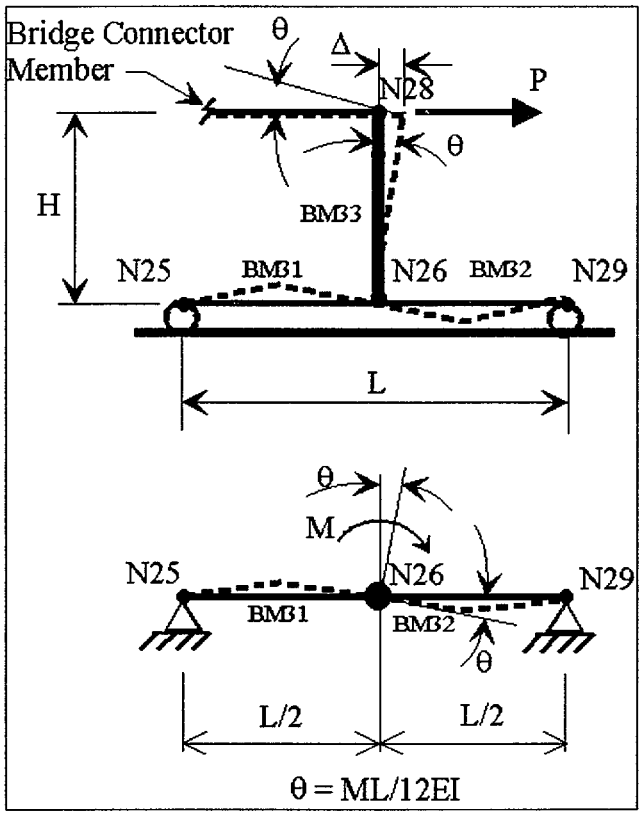

Figure 2 - Free Body Diagram Relating Flexural Rotation in Bridge Connector Member to Moment in End Truck Members

Allowable rotation, θ_a, is a calculated quantity based on the plastic hinge rotation capacity of the bridge connector member and an appropriate factor of safety. The allowable plastic hinge rotation is calculated as follows:

- Set the extreme fiber strain equal to 1/4 of the ultimate tensile strain of the material.
- Relate this fiber strain to a curvature based on the geometric properties of the cross section.

- Determine the hinge rotation by factoring the curvature by the plastic hinge length.

The next step is to relate the allowable curvature, θ_a, to an allowable bending moment, M_a, at the base of the 'vertical stick' in the free body diagram. This goal is accomplished by solving the flexural rotation equation of a simply supported beam with a concentrated midspan moment, $\theta = ML/12EI$ for the moment, M. Length, L, elastic modulus, E, and moment of inertia, I, are known quantities of the lower horizontal member representing the truck in the free body diagram. Allowable moment $M_a = (12EI\theta_a/L)/FS$ at the base of the 'vertical stick' in the free body diagram represents the allowable energy absorption capacity of the bridge connector member where FS represents an additional factor of safety of 1.6.

Once the 'capacity' is known in terms of the moment at the base of the end truck, a corresponding demand can be obtained directly from the seismic analyses. Demand is simply the maximum computed moment at the base of the bridge girder member (Beam 33 at Node 26) obtained from the seismic analyses. The resulting demand versus capacity ratio, including the indicated factors of safety on the capacity, equals 0.0014. This large reserve margin of plastic hinge rotation capacity indicates that permanent deformations may occur under the SSE loading conditions but structural integrity of the bridge connector member is maintained.

NRC Question 7

Enclosure 1, Page 10 of 63, Items 3.1.1(B) and 3.1.3(A): Identify the plant procedures and when they will be updated.

AmerGen Response

The procedures that will be revised are the reactor building crane operating procedure and the site heavy load lift management procedure. These procedures will be revised within 60 days of issuance of the license amendment requested as discussed in Enclosure 5 of Reference 3. During the development of the response to this question a typographical error was noted in the identified enclosure. Specifically, commitment item 3 refers to Matrix Item 3.13(A). Commitment item 3 should refer to Matrix Item 3.1.3(A). A revised Enclosure 5 is contained in Enclosure 2 to this letter correcting the error. The location of the change is indicated by a vertical line in the right-hand margin.

NRC Question 8

Enclosure 1, Page 30 of 63: Document the basis for using the discarded trolley steel for the Charpy 'V' Notch testing.

AmerGen Response

The basis for using the discarded trolley steel for the Charpy 'V' Notch testing follows:

(a) Both the trolley and bridge were made from the same type of steel (ASTM A7).
(b) The old trolley was discarded making material available for test samples.
(c) Samples were cut from the thickest steel parts from the trolley structure. The thickest material was used since it will give conservative material properties including impact test results.
(d) The metallurgical examination of a test plug cut from the existing crane bridge and the Charpy 'V' Notch test samples cut from the discarded trolley were compared. The results indicated that the materials are similar.

NRC Question 9

Enclosure 1, Compliance Matrix Sections 4.9, 7.2, 8.1 and 9: Show how the ASME NOG-1 criteria satisfy the requirements of NUREG-0554.

AmerGen Response

Compliance to Section 4.9: The design of the reactor building crane is required to satisfy Regulatory Position 2 of Regulatory Guide 1.29. NUREG-0554 did not provide criteria for satisfying the regulatory guide. Criteria for meeting the requirement of the regulatory guide are provided in ASME NOG-1-1998, which provides criteria for the design, fabrication, installation and testing of overhead gantry cranes for service in nuclear facilities. The criteria from the ASME NOG document were reviewed. It was determined that the modeling of the trolley is in accordance with normally used techniques. The seismic analysis and damping values used satisfy the requirements of Regulatory Guides 1.92 and 1.61. The ASME NOG document criteria satisfy the requirements of Position 2 of Regulatory Guide 1.29.

Compliance to Section 7.2: ASME NOG-1-1998, Sections 7420 and 7421 were used to verify Pre-Operational Test and Inspection and the No-Load Test. NUREG-0554 requires that crane testing shall satisfy the requirements of ANSI B30.2.0. The criteria from ANSI B30.2.0 were compared to the criteria in ASME NOG-1-1998. It was determined that the criteria from ASME

NOG-1-1998 used for the reactor building crane satisfy the criteria from ANSI B30.2.0 thus ensuring the NUREG-0554 requirement is met.

Compliance to Section 8.1: ASME NOG-1-1998, Section 7500, 'Qualification for Permanent Plant Service,' as applicable were used to ensure that the crane's mechanical and electrical systems are properly installed and that the crane is prepared for testing. Use of Section 7500 invokes criteria from ASME NOG-1-1998, Sections 7520, 7521.2, 7521.3, 7530, 7420 and 7421. The criteria from the ASME NOG sections were compared to the criteria from ANSI B30.2.0. It was determined that the criteria from ASME NOG-1-1998 used for the reactor building crane satisfy the criteria from ANSI B30.2.0 thus ensuring the NUREG-0554 requirement is met.

Compliance to Section 9: The manual of information describes a preventative maintenance program based upon the criteria of OSHA 1910.179 and ASME NOG-1. The criteria from the OSHA and the ASME NOG documents were reviewed against the requirements of ANSI B30.2.0. It was determined that the criteria from the OSHA 1910.179 and ASME NOG-1-1998 used for the reactor building crane satisfy the criteria from ANSI B30.2.0, thus ensuring the NUREG-0554 requirement is met.

Enclosure 2

Oyster Creek Generating Station

Technical Specification Change Request No. 281

Revised Pages
for
AmerGen Letter No. 2130-01-20211
dated
October 12, 2001

SEC #	NUREG REQUIREMENT	LICENSEE COMPLIANCE	LICENSEE EXCEPTIONS
8.1 General (Cont.)	Information concerning proof testing on components and subsystems ..... performed at the manufacturer's plant ..... available for the checking and testing performed at the place of installation.	Information concerning proof testing on component and subsystems that was required and performed at manufacturer's plant is available at Oyster Creek.	No exceptions noted by licensee.
8.2 Static and Dynamic Load Tests	The crane system should be static load tested at 125% of MCL, ... including all positions generating maximum strain in the bridge and trolley structures and positions recommended by the designer and manufacturer.	The trolley was tested at 125% of the DRL at the manufacturer's test facility. Performance testing, manual lowering of the hoists, and manual positioning of the trolley at 100% of the MCL was also verified at the test facility. The 125% load test did not include in-plant maximum strain positions. The crane was not load tested at Oyster Creek as the replacement trolley is of a lighter design, which does not impose any new loadings on the crane bridge or building structure. (Refer to AmerGen response to NRC Introduction Question 1.)	Exceptions noted by licensee.
	After making required adjustments resulting from the 125% static load test, 100% MCL performance test for all speeds and motions for which the system is designed. All safety and limiting control devices will be verified.	The adjusted trolley and hoists were given full performance tests with 100% of the MCL for all speeds and motions for which the system was designed at the manufacturer's test facility. Tests included verification of all safety and limiting control devices. The adjusted and verified trolley from the test facility was shipped in whole and installed on the crane bridge at Oyster Creek. The crane was not load tested at Oyster Creek as the replacement trolley is of a lighter design, which will not impose any new loadings on the crane bridge and building structure. (Refer to AmerGen response to NRC Introduction Question 1.)	
	Emergency manual lowering of the load and manual movement of the bridge and trolley should be tested with the MCL attached.	Emergency manual operation of the hoist and trolley were performed with the MCL attached. Manual movement of the bridge with the MCL attached was not performed after installation of the upgraded trolley.	

2.0 References/Documentation List (Cont)

DRAWING NUMBER	REV LEVEL	DRAWING TITLE
D-18408-341	4/14/00	MAIN HOIST DRUM ASSEMBLY WELD MAP
D-18408-345	05/15/00	MAIN HOIST DRUM BEARING MOUNT
D-18408-346	05/15/00	MAIN HOIST DRUM BEARING RETAINER
D-18408-347	05/15/00	MAIN HOIST MOTOR MOUNTING PLATE
D-18408-350	05/15/00	TROLLEY DRIVE ARRANGEMENT
D-18408-360	05/15/00	MAIN HOIST UPPER BLOCK ARRANGEMENT
D-18408-361	05/15/00	MAIN HOIST EQUALIZER DETAILS
D-18408-364	05/15/00	MAIN HOIST UPPER BLOCK DETAILS
D-18408-365	03/06/00	UPPER BLOCK/EQUALIZER SHEAVE DETAILS
D-18408-366	05/15/00	UPPER BLOCK DETAILS
D-18408-370	06/08/00	UPPER BLOCK ASSEMBLY
D-18408-371	05/05/00	UPPER BLOCK DETAILS
D-18408-372	05/05/00	UPPER BLOCK DETAILS
D-18408-373	05/05/00	UPPER BLOCK GUSSET DETAILS
D-18408-374	05/30/00	UPPER BLOCK WELD MAP
D-18408-380	06/08/00	ANGLED SHEAVE ASSEMBLY, SOUTH
D-18408-381	06/08/00	ANGLED SHEAVE ASSEMBLY, NORTH
D-18408-383	05/05/00	ANGLED SHEAVE DETAILS
D-18408-384	06/08/00	ANGLED SHEAVE PIN AND SPACER DETAILS
D-18408-395	05/15/00	AIR TANK MOUNTING ARRANGEMENT
D-18408-505	05/15/00	TROLLEY WHEEL ASSEMBLIES
D-18408-506	05/15/00	TROLLEY AXLES, SPACERS & BEARING HOUSING DETAILS
D-18408-508	03/08/00	TROLLEY WHEEL DETAILS
D-18408-620	06/05/00	AUXILIARY HOIST MACHINERY ARRANGEMENT
D-18408-625	05/15/00	AUXILIARY HOIST GEARBOX COUPLING
D-18408-640	04/14/00	AUXILIARY HOIST DRUM ASSEMBLY
D-18408-641	04/14/00	AUXILIARY HOIST DRUM ASSEMBLY WELD MAP
D-18408-645	05/15/00	AUXILIARY HOIST DRUM BEARING MOUNT
D-18408-646	05/15/00	AUXILIARY HOIST DRUM BEARING RETAINER
D-18408-647	05/15/00	AUXILIARY HOIST MOTOR MOUNTING PLATE
D-18408-660	06/05/00	AUXILIARY HOIST EQUALIZER ARRANGEMENT
D-18408-661	06/05/00	AUXILIARY HOIST EQUALIZER DETAILS
D-18408-750	05/11/00	MAIN HOIST LOWER BLOCK ASSEMBLY
D-18408-751	04/24/00	MAIN HOIST LOWER BLOCK CROSSHEAD DETAIL
D-18408-752	05/11/00	MAIN HOIST LOWER BLOCK DETAILS
D-18408-753	05/11/00	MAIN HOIST LOWER BLOCK DETAILS

FAILURE MODES AND EFFECTS ANALYSIS (FMEA) WORKSHEET

System: 105/10-TON BRIDGE CRANE, OYSTER CREEK
Subsystem: BRIDGE CRANE SYSTEM ELECTRICAL
Drawing No.: VEN DRAWING D-1408-804/805
PROGRAM: OYSTER CREEK 105/10-TON BRIDGE CRANE
Page 7 of 9 Date: 09/28/2000

DRAWING FIND NO.	PART NAME	PART FUNCTION	A. FAILURE MODE B. CAUSE	FAILURE EFFECT ON SYSTEM PERFORMANCE	FAILURE EFFECT ON SYSTEM OPERATION OR PERSONNEL SAFETY	CRIT CAT
F1 (CONT)	FUSE		A2. OPENS PREMATURELY B2. DEFECTIVE MATERIAL	CRANE SYSTEM INOPERATIVE.	DELAY FOR SYSTEM REPAIR	3
CB3	CIRCUIT BREAKER, 20 AMP	PROVIDES OVER CURRENT PROTECTION TO CRANE UTILITIES FROM MAIN LINE FACILITY POWER	A1. FAILS OPEN B1. BROKEN CONTACTS	LOSS OF POWER TO CRANE LIGHTING/UTILITIES.	DELAY FOR SYSTEM REPAIR	3
			A2. FAILS CLOSED B2. WELDED CONTACTS	LOSS OF ABILITY TO TERMINATE POWER TO CRANE LIGHTING/UTILITIES. MAIN DISCONNECT SWITCH MDS WILL TERMINATE POWER.	DELAY FOR SYSTEM REPAIR	3
CB14	CIRCUIT BREAKER, 15 AMP	PROVIDES OVER CURRENT PROTECTION TO CRANE UTILITIES TRANSFORMER FROM MAIN LINE FACILITY POWER	A1. FAILS OPEN B1. BROKEN CONTACTS	LOSS OF POWER TO CRANE LIGHTING/UTILITIES.	DELAY FOR SYSTEM REPAIR	3
CB14 (CONT)	CIRCUIT BREAKER, 15 AMP	PROVIDES OVER CURRENT PROTECTION TO CRANE UTILITIES TRANSFORMER FROM MAIN LINE FACILITY POWER	A2. FAILS CLOSED B2. WELDED CONTACTS	LOSS OF ABILITY TO TERMINATE POWER TO CRANE LIGHTING/UTILITIES CB3 CAN BE USED TO TERMINATE POWER. WILL TERMINATE POWER.	DELAY FOR SYSTEM REPAIR	3
UT1	TRANSFORMER, UTILITY	PROVIDES 120 VOLT POWER TO THE CRANE UTILITY SYSTEM	A1. FAILS OPEN B1. DEFECTIVE WINDINGS	CRANE UTILITY SYSTEMS INOPERATIVE	DELAY FOR SYSTEM REPAIR	3
			A2. FAILS SHORTED B2. DEFECTIVE WINDINGS	UTILITY SYSTEMS PROTECTED DOWNSTREAM BY ADDITIONAL FUSES. CRANE UTILITY SYSTEMS INOPERATIVE	DELAY FOR SYSTEM REPAIR	3

FAILURE MODES AND EFFECTS ANALYSIS (FMEA) WORKSHEET

System: 105/10-TON BRIDGE CRANE, OYSTER CREEK
Subsystem: BRIDGE CRANE SYSTEM ELECTRICAL
Drawing No.: VEN DRAWING D-1408-804/805
PROGRAM: OYSTER CREEK 105/10-TON BRIDGE CRANE
Page 8 of 9 Date: 09/28/2000

DRAWING FIND NO.	PART NAME	PART FUNCTION	A. FAILURE MODE B. CAUSE	FAILURE EFFECT ON SYSTEM PERFORMANCE	FAILURE EFFECT ON SYSTEM OPERATION OR PERSONNEL SAFETY	CRIT CAT
DPCB1, DPCB2	CIRCUIT BREAKER, 15 AMPS	PROVIDES OVER CURRENT PROTECTION TO CRANE WARNING BELL AND BRIDGE SOUTH LIGHTS.	A1. FAILS CLOSED B1. WELDED CONTACTS	POSSIBLE DAMAGE TO CRANE UTILITIES.	DELAY FOR SYSTEM REPAIR	3
			A2. PREMATURE OPEN B2. DEFECTIVE MATERIAL/INTERNAL PART FAILURE	LOSS OF ABILITY TO ENERGIZE CRANE SYSTEM UTILITIES	DELAY FOR SYSTEM REPAIR	3
DPCB3, DPCB4	CIRCUIT BREAKER, 20 AMPS	PROVIDES OVER CURRENT PROTECTION TO CRANE BRIDGE NORTH LIGHTS AND RECEPTACLES.	A1. FAILS CLOSED B1. WELDED CONTACTS	POSSIBLE DAMAGE TO CRANE UTILITIES.	DELAY FOR SYSTEM REPAIR	3
			A2. PREMATURE OPEN B2. DEFECTIVE MATERIAL/INTERNAL PART FAILURE	LOSS OF ABILITY TO ENERGIZE CRANE SYSTEM UTILITIES	DELAY FOR SYSTEM REPAIR	3
DPCB5, DPCB6	CIRCUIT BREAKER, 15 AMPS	PROVIDES OVER CURRENT PROTECTION TO CRANE CAB FAN AND CAB LIGHT.	A1. FAILS CLOSED B1. WELDED CONTACTS	POSSIBLE DAMAGE TO CRANE UTILITIES.	DELAY FOR SYSTEM REPAIR	3
			A2. PREMATURE OPEN B2. DEFECTIVE MATERIAL/INTERNAL PART FAILURE	LOSS OF ABILITY TO ENERGIZE CRANE SYSTEM UTILITIES	DELAY FOR SYSTEM REPAIR	3
NONE	SWITCH, FOOT OPERATED	PROVIDES ABILITY TO ENERGIZE CRANE WARNING BELL.	A1. FAILS OPEN B1. BROKEN CONTACTS	LOSS OF ABILITY TO ENERGIZE CRANE WARNING BELL.	DELAY FOR SYSTEM REPAIR	3
			A2. FAILS CLOSED B2. WELDED CONTACTS	WARNING BELL WILL REMAIN ENERGIZED.	DELAY FOR SYSTEM REPAIR	3

FAILURE MODES AND EFFECTS ANALYSIS (FMEA) WORKSHEET

System: 105/10-TON BRIDGE CRANE, OYSTER CREEK
Subsystem: AUX.HOIST CONTROL CIRCUIT
Drawing No.: DRAWING D-18408-806-808

PROGRAM
OYSTER CREEK 105/10 TON TROLLEY REPLACEMENT

Page 7 of 15 Date: 9/29/2000

PART NO.	PART NAME	PART FUNCTION	A. FAILURE MODE B. CAUSE	FAILURE EFFECT ON SYSTEM PERFORMANCE	FAILURE EFFECT ON SYSTEM OPERATION OR PERSONNEL SAFETY	CRIT CAT
AHBC1 (CONT)	CONTACTOR, 1 N.O. CONTACT, 2 N.C. CONTACTS		A4. CONTACT FAILS CLOSED B4. WELDED CONTACT	LOSS OF ABILITY TO ENGAGE AUX. HOIST DISC BRAKES WHEN STOP COMMAND IS ISSUED. PLC WILL SENSE A DIFFERENCE BETWEEN COMMAND LEVEL AND ACTUAL CONDITION AND TERMINATE MAIN LINE CONTACTOR WHICH WILL SET ALL BRAKES. REQUIRES MULTIPLE FAILURES	DELAY FOR SYSTEM REPAIR	3
R17	CONTACTOR, 1 N.O. CONTACT	WHEN DE-ENERGIZED PROVIDES THE ABILITY TO ENERGIZE RED WARNING LIGHT INDICATING AUX. HOIST BRAKE FAULT AND TERMINATES HOIST SYSTEM OPERATION.	A1. COIL FAILS OPEN B1. DEFECTIVE COIL	LOSS OF VISUAL WARNING OF AUX. HOIST BRAKE FAULT. PLC WILL SENSE BRAKE FAULT AND TERMINATE ALL AUX. HOIST OPERATIONS.	DELAY FOR SYSTEM REPAIR	3
			A2. COIL FAILS SHORTED B2. DEFECTIVE COIL	LOSS OF VISUAL WARNING OF AUX. HOIST BRAKE FAULT. PLC WILL SENSE BRAKE FAULT AND TERMINATE ALL AUX. HOIST OPERATIONS.	DELAY FOR SYSTEM REPAIR	3
			A3. CONTACT FAIL OPEN B3. BROKEN CONTACT LEAF	LOSS OF VISUAL WARNING OF AUX. HOIST BRAKE FAULT. PLC WILL SENSE BRAKE FAULT AND TERMINATE ALL AUX. HOIST OPERATIONS.	DELAY FOR SYSTEM REPAIR	3
R17 (CONT)	CONTACTOR, 1 N.O. CONTACT		A4. CONTACT FAILS CLOSED B4. WELDED CONTACT	LOSS OF VISUAL WARNING OF AUX. HOIST BRAKE FAULT. PLC WILL SENSE DIFFERENCE BETWEEN COMMAND LEVEL AND PLC FEED BACK AND TERMINATE AUX. HOIST OPERATIONS. STOP BUTTON IS ALSO AVAILABLE TO STOP CRANE MOTION. REQUIRES MULTIPLE FAILURES.	DELAY FOR SYSTEM REPAIR	3

Commitments

1) AmerGen Response to Question 1, Page 3, Section 5.1.1 (1), Safe Load Paths:

   Procedures will be revised to require authorization from the Plant Manager or designee and the Engineering Director or designee for heavy load paths other than those previously authorized over the reactor cavity with the shield blocks removed, or over the spent fuel storage pool.

2) AmerGen Response to Question 4, Page 10, Matrix Item 3.1.1(B):

   Plant procedures will be revised to prevent heavy load travel over "HOT" irradiated fuel.

3) AmerGen Response to Question 4, Page 10, Matrix Item 3.1.3(A):

   Plant procedures will be revised to minimize the length of travel of heavy loads over spent fuel.

4) AmerGen Response to Question 3, Page 26, re: NUREG-0612:

   All new lifting devices and interfacing lift points, associated with heavy loads handled by the reactor building crane, will meet the associated requirements of NUREG-0612, Section 5.1.6 [5.1.6(1) and 5.1.6(3), respectively].

The commitments above will be implemented within 60 days of issuance of the license amendment approving the requested change.