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SUBJECT: Forwards response to request for info in Section 2.2 & 2.3 of Generic Ltr 81-07 re overhead handling sys.Revised 9 month submittal, "Control of Heavy Loads" & review of special lifing devices also encl.

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October 11, 1982

Director
Office of Nuclear Reactor Regulation
U S Nuclear Regulatory Commission
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Control of Heavy Loads (Revised Nine Month Submittal
and Unresolved Item, Review of Special Lifting Devices 2.1.3d)

Following discussions with the NRC staff the six month submittal dated September 30, 1981 was revised. The revision of the original six month report necessitated revising our original nine month report dated January 12, 1982.

The attached revised report (Enclosure 1) replaces the original nine month report (submitted on January 12, 1982) in its entirety and incorporates the information concerning review of interfacing lift points previously submitted on March 12, 1982.

Enclosure 2 of this report provides the results of our review of special lifting devices, item 2.1.3d of our six month report. Procedures will be prepared and/or revised as appropriate to correct deficiencies identified in table 1 and 2 of enclosure 2 under items 3.1.1, 3.1.4, 5.1.3, 5.1.4, 5.1.6, 5.1.7 and 5.2.2. Administrative controls will be revised or prepared to provide the required documentation identified under item 5.1.5.1 in tables 1 and 2 of enclosure 2. Both the procedures and the administrative controls will be completed per the schedule identified in D G Eisenhut's letter dated December 22, 1980.

David Musolf
Manager of Nuclear Support Services

DMM/TMP/js

Enclosure (2)

cc: Regional Admin-III, NRC
NRR Proj Mgr, NRC
NRC Resident Inspector
G Charnoff

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Enclosure 1

RESPONSE TO REQUEST FOR

INFORMATION IN SECTION 2.2 AND

2.3 OF NRC GENERIC LETTER 81-07

1. INTRODUCTION

Northern States Power Company submittal to the U.S. Nuclear Regulatory Commission, dated July 7, 1982 (reference 1), identified all overhead handling systems from which a heavy load drop may result in damage to spent fuel, the reactor core and to plant systems required for safe shutdown or decay heat removal. These overhead handling systems are:

Handling System	Location	Capacity (Tons) Main/Auxiliary	ID No.*
Turbine Building Crane	Turbine Building	125/5	1
Reactor Building Crane	Reactor Building	85/5	2
Drywell Monorail	Drywell	5	14
Torus Monorail	Torus	5	15
Torus Access Hatch Hoist & Lifting Lug	Reactor Building	2	28
Chlorine Container Monorail & Cylinder Grab	Intake Structure	2	31
Radwaste & Fuel Pool Shield Block Monorails	Reactor Building	5	36
Reactor Building Floor/ Equipment Drain Tank Hatch Lifting Device	Reactor Building	4	45
RCIC Pump Room Access Hatch Lifting Device	Reactor Building	4	53
Drott Mobil Crane	Various	3.5	62

All other overhead handling devices were excluded from further need for evaluation for the reasons described in NSP's submittal (reference 1).

The following are responses to NRC Generic Letter 81-07 (reference 2), Enclosure 3, sections 2.2 and 2.3, for the handling systems listed above.

* Identification number (I.D. No.) used to identify overhead handling systems in reference tables.

2. NRC QUESTION 2.2

Specific requirements for overhead handling systems operating in the Reactor Building.

a. NRC QUESTION 2.2-1

Identify the name, type, capacity, and equipment designator, of any cranes physically capable (i.e., ignoring interlocks, moveable mechanical stops, or operating procedures) of carrying loads over spent fuel in the storage pool or in the reactor vessel.

RESPONSE

The following cranes are capable of handling loads over spent fuel:

HANDLING DEVICE NAME	TYPE	CAPACITY(Tons)	EQUIPMENT VENDOR
Reactor Building Crane	Bridge	85/5	Crane Manufacturing Co. Ederer Company (Trolley Manufacturer)
Refueling Facility Channel Handling Jib Boom	Jib Boom	.025	General Electric Co.
Refueling Facility Motor Driven Jib Boom Crane "A"	Jib Boom	.75	Cleveland Beacon Products
Refueling Facility Motor Driven Jib Boom Crane "B"	Jib Boom	.75	Cleveland Beacon Products

b. NRC QUESTION 2.2-2

Justify the exclusion of any cranes in this area (reactor vessel and spent fuel pool) from the above category by verifying that they are incapable of carrying heavy loads or are permanently prevented from movement of heavy loads over stored fuel or into any location where, following any failure, such load may drop into the reactor vessel or spent fuel storage pool.

RESPONSE

All lifting devices identified in our response to NRC question 2.2.1 above, with the exception of the Reactor Building Crane, are incapable of carrying loads heavier than the heavy loads basis. These lifting devices are therefore excluded from the above category.

c. NRC QUESTION 2.2-3

Identify any cranes listed in 2.2-1 which you have evaluated as having sufficient design features to make the likelihood of a load drop extremely small for all loads to be carried and the basis for this evaluation (i.e., complete compliance with NUREG-0612, Section 5.1.6 or partial compliance supplemented by suitable alternative or additional design features). For each crane so evaluated, provide the load-handling-system (i.e., crane-load-combination) information specified in attachment #1.

RESPONSE

As noted in the response to SUBQUESTION 2.1-3.f in the 6 month report submittal (reference 1), the reactor building crane was modified in 1977 to provide a single failure proof crane. A detailed description of this modification was given in the NSP submittals to the NRC of November 22, 1976 (reference 3), February 28, 1977 (reference 4) and June 24, 1977 (reference 5), and accepted by the NRC on May 29, 1977 (reference 6). Our consultant, Bechtel Power Corporation reviewed the Reactor Building Crane and concluded that in their judgement it meets the intent of the requirements of NUREG 0612 Section 5.1.6.

The comparison of the reactor building crane redesign to the information requested in Attachment 1 of the NRC Request for Additional Information dated February 3, 1981 (reference 2) is as follows:

1) The only single failure proof crane physically capable of carrying loads over the reactor vessel and fuel storage area is the reactor building crane. The required details of which are given above in response to NRC Question 2.2-1.

   The reactor building crane main hoist is designed to handle the maximum critical load (MCL) of 75* tons.

   The design rated load (DRL) of 85 tons provides an increase in load capability to compensate for wear and exposure.

2) A detailed evaluation was issued in the earlier NSP submittal (reference 4) and based on the NRC review of this against the provisions of the NRC draft Regulatory Guide 1.104 the NRC found the design acceptable (reference 6).

3) The seismic analysis methods used were described in NSP submittal of February 28, 1977 (reference 4).

* Based on original shipping cask design.

4) The NSP submittal of November 22, 1976 (reference 3) response to section 3.4 also covered the handling of the worst case load conditions for the crane. In addition, our response to subquestion 2.1.3.d in the six month report submittal (reference 1) covered slings. Special lifting devices, associated with the reactor building crane have been evaluated and the results are contained in Enclosure 2.

5). We have completed a review of the interfacing lift points per NUREG 0612, section 5.1.6 for heavy loads handled by the reactor building crane. The results of this review are shown in Table I. We are proceeding with design modifications of interfacing lift points that do not meet the criteria specified in NUREG 0612 section 5.1.6. Table II lists the items associated with the Reactor Building Crane not evaluated and the reason for not evaluating them.

d. NRC QUESTION 2.2-4

For cranes identified in 2.2-1, above, not categorized according to 2.2-3 demonstrate that the criteria of NUREG 0612, Section 5.1, are satisfied. Compliance with Criterion IV will be demonstrated in response to Section 2.4 of this request. With respect to Criteria I through III, provide a discussion of your evaluation of crane operation in the Reactor Building and your determination of compliance.

RESPONSE

No cranes were identified as applicable.

3. NRC QUESTION 2.3

Specific requirements for overhead handling systems operating in plant areas containing equipment required for reactor shutdown, decay heat removal, or spent fuel pool cooling.

a. NRC QUESTION 2.3-1

Identify any cranes listed in 2.1-1, above, which you have evaluated as having sufficient design features to make the likelihood of a load drop extremely small for all loads to be carried and the basis for this evaluation (i.e., complete compliance with NUREG 0612, Section 5.1.6, or partial compliance supplemented by suitable alternative or additional design features). For each crane so evaluated, provide the load-handling system (i.e., crane-load-combinations), information specified in Attachment I.

RESPONSE

As noted previously, the reactor building crane is designed as a single failure proof crane. The response to NRC question 2.2-3 above and the referenced submittals provide the information requested.

b. NRC QUESTION 2.3-2

For any cranes identified in 2.1-1 not designated as single-failure-proof in 2.3-1, a comprehensive hazard evaluation should be provided which includes the following information:

1). The presentation (in a matrix format) of all heavy loads and potential impact areas where damage might occur to safety-related equipment. Heavy loads identification should include designation and weight or cross-reference to information provided in 2.1-3.c. Impact areas should be identified by construction zones and elevations or by some other method such that the impact area can be located on the plant general arrangement drawings.

2) For each interaction identified, indicate which of the load and impact area combinations can be eliminated because of separation and redundancy of safety-related equipment, mechanical stops and/or electrical interlocks, or other site-specific considerations. Elimination on the basis of the aforementioned consideration should be supplemented by the following specific information:

   a) For load/target combinations eliminated because of separation and redundancy of safety-related equipment, discuss the basis for determining that load drops will not affect continued system operation (i.e., the ability of the system to perform its safety-related function).

   b) Where mechanical stops or electrical interlocks are to be provided, present details showing the areas where crane travel will be prohibited. Additionally, provide a discussion concerning the procedures that are to be used for authorizing the bypassing of interlocks or removable stops, for verifying that interlocks are functional prior to crane use, and for verifying that interlocks are restored to operability after operations which require bypassing have been completed.

   c) Where load/target combinations are eliminated on the basis of other, site-specific considerations (e.g., maintenance sequencing), provide present and/or proposed technical specifications and discuss administrative procedures or physical constraints invoked to ensure the validity of such considerations.

3) For interactions not eliminated by the analysis of 2.3-2.b, above, identify any handling systems for specific loads which you have evaluated as having sufficient design features to make the likelihood of a load drop extremely small and the basis for this evaluation (i.e., complete compliance with NUREG 0612, Section 5.1.6, or partial compliance supplemented by suitable alternative or additional design features). For each so evaluated, provide the load-handling-system (i.e., crane-load-combination) information specified in Attachment 1.

4) For interactions not eliminated in 2.3-2.b or 2.3-2.c, above, demonstrate using appropriate analysis that damage would not preclude operation of sufficient equipment to allow the system to perform its safety function following a load drop (NUREG 0612, Section 5.1, Criterion IV). For each analysis so conducted, the following information should be provided:

   a) An indication of whether or not, for the specific load being investigated, the overhead crane-handling system is designed and constructed such that the hoisting system will retain its load in the event of seismic accelerations equivalent to those of a safe shutdown earthquake (SSE).

   b) The basis for any exceptions taken to the analytical guidelines of NUREG 0612, Appendix A.

   c) The information requested in Attachment 4.

RESPONSE

All of the lifting devices identified in 2.1-1 (reference 1), with the exception of the reactor building crane, are not designated as single failure proof. The information requested for each of these cranes follows:

Turbine Building Crane (I.D. #1)

2.3-2.a) Identification of heavy loads, weight of loads and potential impact area is provided in Table II and Figure 25 of reference 1.

2.3-2.b) Critical areas have been established in the turbine building where special procedures are required should a heavy load be transported over the area. The basic requirements are:

1) There are no restrictions on the movement of heavy loads in the area not identified by cross-hatching.

2) All heavy loads with the exception of the turbine and generator rotors may be moved over the cross-hatched area providing they are restricted to a maximum height of six (6) inches above the floor during transport.

3) The turbine or generator rotors cannot be transported via the turbine building crane through or into the cross hatched areas. Floor loadings will, however, permit the rotors to be transported via rollers into these areas.

Figure 25 (reference 1) shows the plan view of the turbine building and the restricted areas marked where special procedural requirements are enforced for the turbine building crane. The six (6) inch height restriction ensures that the floor will not be penetrated by nor spalling result from the drop of the heavy load considered with the exception of the rotors.

Turbine Buidling Crane (Cont'd)

2.3-2.c) N/A

2.3-2.d) Regarding Criterion IV of NUREG 0612, 5.1, calculations show that if the turbine rotors and generator rotor are not transported via the turbine building crane over the cross hatched areas as outlined in Figure 25, (reference 1) and all heavy loads in the cross hatched areas are not carried any higher than 6" above the floor there will be no spalling of the concrete or structural failure which would endanger safety-related equipment required for attaining or maintaining a cold shutdown condition.

Initial Conditions/Assumptions

Item	Response
a. Weight of heavy load	100,000 lbs (worst case load excluding rotors)
b. Impact area of load	208 Ft^2
c. Drop height	6 inches
d. Drop location	See Fig. 1 cross hatched area
e. Assumptions regarding credit taken in the analysis for the action of impact limiters	Impact limiters were not considered
f. Thickness of floor slab impacted	1'-1" to 2'-0"
g. Assumptions regarding drag forces caused by the environment	No drag forces were considered
h. Load combinations considered	DL + equipment load
i. Material properties of steel and concrete	Structural steel: A36 Reinforced concrete: Fc'= 3,000 psi Reinforcing steel: Fy = 60,000 psi

Concrete spalling was checked using the modified Ballistic Research Laboratories formula. The strain-energy method was used to check beams and girders ductility abilities.

Criteria III of NUREG 0612, Section 5.1, is not applicable.

Drywell Monorail (I.D. #14)

2.3-2.a) Figure 34 (reference 1) identifies potential impact areas. The function of this load handling device is to assist in moving equipment, tools and other components from the 935' elevation in the drywell to the 948' elevation when the Rx is in a shutdown condition. Equipment typcially handled by this device consists of; Main Steam Safety Relief Valves, 1000 lbs, Motor Operated Valve Components, 1000 lbs, and tools. This device is also used to lift piping and other materials used for modification projects.

2.3-2.b) The Drywell Monorail can be eliminated on the basis of separation and redundancy of safety related equipment. If a heavy load were dropped from the Drywell Monorail it is possible for the heavy load to impact on the A Rx Recirc loop piping and/or the A RHR injection header, the RHR shutdown cooling suction header or the B Rx Recirc loop piping and/or the B RHR loop injection header. It is not physically possible to damage both the A Rx Recirc loop & A RHR injection header and the B Rx Recirc loop & B RHR injection header. If the RHR suction header were damaged an alternative shutdown cooling suction would be available through the steam line, safety relief valve and the torus. Therefore this load handling device is eliminated because of separation and system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

Torus Monorail (I.D. #15)

2.3-2.a) This lifting device is located inside the torus which is shown on Figure 29 (reference 1). The function of this device is to assist in maintenance activities in the torus. Loads typically handled by this device would consist of, torus to drywell vacuum breaker valves, tools and other miscellaneous equipment. This device is also used to handle piping and structural materials used to make modifications in the torus.

2.3-2.b) The Torus Monorail can be eliminated on the basis of site specific considerations. This load handling device is only used when the reactor is in cold shutdown condition and if loads were handled that were greater than 1000 lbs the torus would typically be drained. No component or system required for plant shutdown or decay heat removal would be affected by a load drop at that time.

2.3-2.b) (continued)

Existing Technical Specifications allow access to the torus only during such times that primary containment is not required (i.e., cold shutdown). The work request process covered by plant administrative control directives assures compliance with the Technical Specifications.

2.3-2.c) N/A

2.3-2.d) N/A

Torus Access Hatch Hoist and Lifting Lug (I.D. #28)

2.3-2.a) Figure 27 (reference 1) identifies potential impact areas. The function of this load handling device is to assist in torus maintenance activities. This device is typically used to move tools, equipment and other componenets into and out of the torus in support of maintenance activities. In addition it may be used in maintenance activities on motor operated valves for other systems that are located in the area above the torus. A typical load would consist of tools, motor operated valve parts, torus to drywell vacuum breaker valves and other miscellaneous loads within the capacity of the lifting device.

2.3-2.b) The Torus Access Hatch Hoist and Lifting Lug can be eliminated on the basis of site specific considerations. It is very unlikely that a load drop from this device would damage the torus to the point that primary containment integrity is affected. Typically heavy loads would only be handled by this device for torus modification when primary containment is nct required and the torus is drained. No other component or system required for plant shutdown or decay heat removal is located in the area of this device.

2.3-2.c) N/A

2.3-2.d) N/A

Chlorine Container Monorail & Cylinder Grab 3600 lbs (I.D. #31)

2.3-2.a) The Chlorine Container Monorail and Cylinder Grab is located in the chlorine storage room above the west intake structure equipment bay. The function of this load handling device is to handle cylinders containing liquid chlorine (3600 lbs). These containers of liquid chlorine are handled at various intervals depending on the volume used in the plant.

Chlorine Container Monorail (Cont'd)

2.3-2.b) The Chlorine Container Monorail & Cylinder Grab can be eliminated on the basis of separation and system redundancy. It is very unlikely that dropping of one of these chlorine containers would penetrate the floor of the chlorine storage room or that any spalling of the concrete could damage the B RHR-SW loop piping that is located in the area. In the unlikely event that the B RHR-SW loop were disabled the load drop would not damage the redundant A RHR-SW loop. Therefore this load handling system has been eliminated because of separation and system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

Radwaste & Fuel Pool Shield Blocks Monorail (I.D. #36)

2.3-2.a) Figure 28 (reference 1) identifies potential impact areas. The function of this load handling device is the removal of shield blocks (7600 lbs) and the assembly and disassembly of the following components: Two fuel pool filters, radwaste floor drain filter, radwaste equipment drain filter and the radwaste deep bed demineralizer.

2.3-2.b) Radwaste & Fuel Pool Shield Block Monorail can be eliminated on the basis of separation and system redundancy. It is very unlikely that dropping one of the shield plugs would cause the load to penetrate the three floors, separating the shield plugs from the B Loop RHR & Core Spray systems and render these systems inoperable. In the unlikely event that this were to occur it would not disable the redundant A RHR & Core Spray loops that are located in a separate room. Therefore this load handling device has been eliminated because of separation and system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

Reactor Building Floor Drain/Equipment Drain Hatch Lifting Device (I.D. #45)

2.3-2.a) Figure 27 (reference 1) identifies potential impact areas. The function of this load handling device is to remove the shield block (8000 lbs) above the Rx Building Floor Drain & Equipment Drain Tanks. This device is also used for maintenace activities associated with sump pumps located in these drain tanks. This device is also used to move equipment, tools and other components into and out of the torus area via this tank room.

Reactor Building Floor Drain/Equipment Drain Hatch Lifting Device (Cont'd)

2.3-2.b) The Reactor Building Floor Drain/Equipment Drain Hatch lifting device can be eliminated on the basis of separation and system redundancy. Loads handled by this device could impact on system components associated with the HPCI system, however, the RCIC system would be available to perform as a backup to the HPCI system. Therefore this load handling device has been eliminated from consideration because of separation and system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

RCIC Pump Room Access Hatch Monorail (I.D. #53)

2.3-2.a) Figure 27 (reference 1) identifies potential impact areas. The function of this load handling device is to remove the shield block (8 000 lbs) above the RCIC system steam driven pump and to assist in the assembly, disassembly and the removal of various system components located in the room.

2.3-2.b) The RCIC Pump Room Access Hatch Monorail can be eliminated on the basis of system redundancy. If the shield plugs were to be dropped and disable the RCIC system it would not disable the alternative method of water makeup to the Rx at rated pressure. The HPCI system can perform this task. Therefore this load handling device has been eliminated because separation and of system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

Drott Mobil Crane (I.D. #62)

2.3-2.a) The function of this load handling device is to assist in moving equipment that is too heavy or awkward to handle by other methods. This device can only be used in a very limited area of the Reactor Building and in the railroad access area of the Turbine Building.

2.3-2.b) The Drott Mobil Crane can be eliminated on the basis of system redundancy. It would be possible to transport a heavy load over the floor above the A & C RHR pumps and the A Core Spray pump or the B & D RHR and B Core Spray pumps. It is not normally used to assist in the assembly and disassembly of these system components. It would not normally be transporting a heavy load

Drott Mobil Crane (Cont'd)

2.3-2.b) (continued)

in these areas with the shield blocks removed. If it did transport a heavy load in this area it would be physically impossible to drop the load and disable both loops of these systems. The redundant loop to the disabled system would be available to perform its function in plant shutdown and decay heat removal. No safety related equipment is located below the area of the turbine building normally accessed by this device. Therefore this load handling device has been eliminated because of separation and system redundancy.

2.3-2.c) N/A

2.3-2.d) N/A

4. REFERENCES

1) Northern States Power Company submittal to U.S. Nuclear Regulatory Commission dated July 7, 1982, Control of Heavy Loads (revised six month submittal).

2) U.S. Nuclear Regulatory Commission to Licensee of Operating Plants dated February 3, 1981, Control of Heavy Loads (Generic Letter 81-07).

3) Northern States Power Company submittal to the U.S. Nuclear Regulatory Commission dated November 22, 1976, Design Report for Redundant Reactor Building Crane.

4) Northern States Power Company submittal to the U.S. Nuclear Regulatory Commission dated February 28, 1977, Redundant Reactor Building Crane.

5) Northern States Power Company submittal to U.S. Nuclear Regulatory Commission dated June 24, 1977, Reactor Building Redundant Crane.

6) U.S. Nuclear Regulatory Commission, D.O.R. letter to Northern States Power Company dated May 19, 1977, Docket No. 50-263.

Control of Heavy Loads
Interfacing Lift Point Review Results

Table 1

Item No.	Equipment	Weight (Kips) /Sling angle(1)	Design Load (Kips) (2)	Mat'l /U.T.S (KSI)	Required Safety Factor 10	Required Safety Factor 5	Calculated Safety Factor	Meet NRC Design Criteria Yes	Meet NRC Design Criteria No
1	Vessel Service Platform	6/0°	12	A-36/58		x	0.9		x
2	Stud Detentioner Carousel	20/0°	40	A-36/58 (3)	x		54.0	x	
3	Fuel Pool Shield Blocks	10/0°	20	A-36/58	x		39.0	x	
4	RPV Head	90/0°	180	A-533/80		x	7.5	x	
5	Drywell Head	80/0°	160	A-212/80		x	7.5	x	
6	Fuel Pool Skimmer Tank Shield Blocks	6/30°	12	A-36/58		x	4.8		x (5)
7	Steam Separator	66/0°	132	A-36/58 (3)		x	10.5	x	
8	Steam Dryer	44/0°	88	A-36/58 (3)		x	7.8	x	
9	Rx Head Insulation	9/0°	60	A-36/58 (3)		x	10.8	x	
10	Refueling Canal Shield	30/0°	60	A-36/59 (3)		x	2.4		x
12	New Fuel Storage Shield Block	5/30°	10	A-36/58		x	5.7	x	
14	Equipment Storage Shield Block	29/30°	58	A-36/58		x	11.7	x	
15	Rx Cavity Shield Block	100/30°	200	A-36/58		x	5.2	x	
17	New Fuel Shipping Container	2/0°	4	A-36/58 (3)		x	9.4	x	
21	RPV Invessel Work Platform	100/30°	200	A-36/58 (3)		x	1.6		x

Control of Heavy Loads
Interfacing Lift Point Review Results

Table I (Continued)

NOTES:

1. Sling angles are from a vertical line.

2. Assumed maximum dynamic load is one time the weight.

3. Material assumed as A-36, carbon steel, when not given on applicable drawings.

4. Allowable weld stress:

   a. Fillet weld = (U.T.S. ÷ S.F.) x 0.8
   b. Full penetration in tension = U.T.S. ÷ S.F.
   c. For one lifting point, the design safety factor (S.F.) = 10
   d. For two or more lifting points, one lifting point is assumed failed and the S.F. = 5
   e. Reference Nureg 0612, per 5.1.6 - 3a & 3b
   f. Ultimate tensile strength (UTS) per ASME Section III code.

5. Calculated stress is below AISC 6th edition allowable stress (15.8 KSI).

Control of Heavy Loads

Table II

Item No.	Loads	Reasons for not Evaluating
11	Spent Fuel Shipping	Shipping cask design for spent fuel has not been finalized and will be evaluated at a later date, prior to use.
13	GE Model 1600 Cask	Shipping cask design for spent fuel has not been finalized and will be evaluated at a later date, prior to use.
19	RPV Head Piping	Does not have any lifting lugs.
20	Fuel Preparation Machine	Per GE Dwg 718E624 (Bechtel V.P. 5828-APED-8A-4) Weight of the load is only 750 lbs and only handles fuel while connected to the pool wall.