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June 20, 2000

Charles Bechhoefer
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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Richard F. Cole
Administrative Judge
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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Charles N. Kelber
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Northeast Nuclear Energy Company
(Millstone Nuclear Power Station, Unit 3)
Docket No. 50-423-LA-3

Administrative Judges:

On May 2, 2000, the Nuclear Regulatory Commission ("NRC") Staff issued a request for additional information ("RAI") to Northeast Nuclear Energy Company ("NNECO") on various radiological considerations associated with the installation and long-term operation of the Millstone Unit 3 spent fuel pool.

By this letter, NNECO is now providing the Atomic Safety and Licensing Board with a copy of NNECO's June 16, 2000, responses to the Staff's RAIs. The discussion in the letter of proposed Technical Specification 3.9.1.2, and Attachments 2 and 3 to the letter, are potentially relevant and material to the issues in this proceeding.

Sincerely,

Donald P. Ferraro

Donald P. Ferraro
Counsel for Northeast Nuclear Energy Company

Enclosure
cc: Service List

Template = SECY-026

SECY-02

Northeast
Nuclear Energy

Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385-0128
(860) 447-1791
Fax (860) 444-4277

The Northeast Utilities System

JUN 16 2000

Docket No. 50-423
B18113

Re: 10 CFR 50.90

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

Millstone Nuclear Power Station, Unit No. 3
Response to Request for Additional Information,
Spent Fuel Pool Rerack (TAC No. MA5137)

In a letter dated March 19, 1999,[(1)] Northeast Nuclear Energy Company (NNECO) submitted a proposed revision to the Millstone Unit No. 3 Technical Specifications for Spent Fuel Pool Rerack. The proposed changes modify the Technical Specifications to allow for additional racks to be installed in the Millstone Unit No. 3 spent fuel pool (SFP) in order to maintain full core reserve capability.

On May 2, 2000,[(2)] the Nuclear Regulatory Commission (NRC) requested additional information on various radiological considerations associated with the installation and long term operation of the Millstone Unit No. 3 SFP. The answers to those questions are presented in Attachment 1 to this letter.

A telephone conference between NNECO and the NRC staff was held on May 8, 2000, to discuss the basis for the proposed revisions to Technical Specification (TS) 3.9.1.2, including modifications submitted by NNECO on April 17, 2000.[(3)] At that time, the Staff

(1) R. P. Necci letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Proposed Revision to Technical Specification, Spent Fuel Pool Rerack (TSCR 3-22-98)," dated March 19, 1999.

(2) Memorandum from Victor Nerses to James W. Clifford, "Millstone, Unit No. 3, Draft Request for Additional Information, Spent Fuel Rerack Amendment (TAC No. MA5137)," dated May 2, 2000.

(3) R. P. Necci letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Modification of Proposed Revision to Technical Specification - Spent Fuel Pool Rerack (TSCR 3-22-98)," dated April 17, 2000.

provided its position that the proposal be further modified to include remedial actions in the event the soluble boron concentration is reduced below the proposed acceptance limit. NNECO concurred with the Staff position and it was agreed that the proposed change would be modified such that the ACTION requirements contained in the current NRC approved version of Specification 3.9.1.2 would be retained. On this basis, this supplemental modification does not impact the safety assessment or the no significant hazards determination provided with the original submittal. Attachment 2 provides the revised marked-up TS page. Attachment 3 provides the associated retyped TS page.

An additional telephone conference was held on May 25, 2000, between representatives of NNECO and the NRC Staff. At that time, the Staff requested clarifications regarding heavy load handling information provided in the March 19, 1999,[1] submittal. Attachment 4 provides NNECO's response to that request.

There are no regulatory commitments contained within this letter.

If the NRC Staff should have any questions or comments regarding this submittal, please contact Mr. David Dodson at (860) 447-1791, extension 2346.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Raymond P. Necci
Vice President - Nuclear Technical Services

Subscribed and sworn to before me

this 16th day of June, 2000

Notary Public

Date Commission Expires: Jun 30 2004

Attachments (4)

cc: See next page

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Docket No. 50-423
B18113

Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Response to Request for Additional Information
Spent Fuel Pool Rerack (TAC No. MA5137)
Responses to Draft Request for Additional Information Dated May 2, 2000

Responses to Draft RAI Dated May 2, 2000

1. **Discuss how the increased number of spent fuel assemblies stored in the Millstone Unit No. 3 SFP will affect the dose rates in any accessible areas below the refueling deck and adjacent to the SFP walls (including any accessible areas below the SFP). State whether the storage of an increased number of spent fuel assemblies in the Millstone Unit No. 3 SFP will necessitate any radiation zoning changes to any of the surrounding areas.**

Response

The rerack shielding analysis calculated that dose rates at the Millstone Unit No. 3 spent fuel pool (SFP) wall outer surface due to stored fuel assemblies in the reracked pool will be a maximum of 2.5 mR/hr. This result is considered conservative because it is based on the following conservative assumptions:

- All fuel assemblies have a burnup of 60,000 MWD/MTU
- All fuel assemblies have decayed only 100 hours
- Core power is 3,636 MW(t), vs. actual rated power of 3,411 MW(t)
- The source consists of multiple fuel assemblies all located at the fuel pool wall

This calculated dose rate value represents an increase in the maximum dose rate from current negligible values, however, this value is well within the design basis values for the original SFP design. Therefore, the increased number of spent fuel assemblies stored in the SFP will not require radiation zoning changes in any accessible areas surrounding the SFP.

Regarding dose rates underneath the fuel pool, the SFP sits on bedrock. Thus, there are no accessible areas below the SFP.

2. **Provide a description of any sources of high radiation, other than spent fuel assemblies, that may be in the Millstone Unit No. 3 SFP during any diving operations needed to remove underwater appurtenances and to install the new fuel racks. Discuss what precautions (such as fuel shuffling, removal of high radiation sources, use of TV monitoring, diver tethers, use of physical or visual barriers, etc.) will be used to ensure that the divers will maintain a safe distance from any high radiation sources in the SFP.**

Response

Sources of high radiation in the SFP other than fuel assemblies and fuel assembly inserts such as burnable poison rod assemblies (BPRAs) include:

- Lock tabs (stored on pool floor, northeast corner).
- Thimble plugs (stored on pool floor, northeast corner).

- Vacuum filters (stored in the cask pit area, which is far removed from diving operations).

Precautions to reduce exposure to diving personnel include:

- The installation contractor will be Underwater Construction Corporation (under the direction of Holtec International) which is very experienced in safe diving evolutions for SFP reracks.
- Diver tethers with tenders will be used to keep divers within prescribed areas.
- Diver exposure will be minimized as the result of a spent fuel shuffle that has already been performed.
- The Millstone Unit No. 3 SFP has much open floor space, and most diving operations will be performed with a significant distance between the diver and existing fuel racks.
- While lock tabs and thimble plugs would not produce significant diver exposure in their present locations, they will be moved farther away from the planned diving area to further reduce diver exposure.
- Visual contact with the divers will be maintained during all diving operations using underwater TV cameras.

3. Discuss the need for any additional lighting in or above the SFP to ensure that both the diver work area is adequately illuminated and the dive tenders above the SFP can maintain visual surveillance of the divers in the SFP at all times.

<u>Response</u>

The following activities will provide adequate lighting of the diving work area, and ensure that dive tenders can maintain visual surveillance of the divers at all times:

- The permanent overhead and underwater lighting in the SFP has been evaluated by NNECO and determined to provide adequate general illumination for most anticipated diving and spent fuel rack installation operations.
- The installation contractor is tasked with providing and installing additional portable lighting to locally support diving and rack installation operations as necessary.
- The project specific diving procedure requires that the diver and the responsible Health Physics technician concur that the underwater lighting level is adequate for each underwater diving operation.

4. Describe how you plan to monitor the doses received by the divers during the reracking operation (e.g., use of extremity or multiple TLDs, alarming dosimeters, remote readout radiation detectors). Describe how you plan to maintain continuous communication with the divers while they are in the SFP.

Response

Doses received by divers will be monitored using a multiple dosimetry package to include extremity monitoring, alarming dosimetry, and teledose. Continuous voice communication with the divers will be maintained while they are in the SFP using dedicated communication equipment. This equipment will be provided by Holtec International and approved for use by NNECO Health Physics.

5. Describe how you plan to survey the portions of the SFP where divers may be used to ensure that you have an accurate dose rate map of these underwater areas. Verify that you will perform updated dose rate surveys in the SFP any time that there is a change in location of the high radiation sources in the SFP.

Response

NNECO Health Physics Operations Procedure RPM 2.2.8, "Underwater Radiological Surveys," is used to perform SFP underwater surveys. Accurate pre-diving dose maps are ensured by the use of two independent underwater survey meters and the recording of dose rates on survey maps containing specified grid points. In accordance with Health Physics Operations Procedure RPM 2.5.1, "Health Physics Requirements for Diving Evolutions," if the work area radiological survey is greater than 24 hours old or any fuel or high radiation component has been moved within the underwater work area, a pre-dive work area survey must be verified prior to a diving evolution.

Assessment surveys were taken during the rerack project ALARA planning period. As identified in response to Question 2, fuel assemblies and BPRAs affecting the rerack work area have already been moved, and other high radiation sources near the work area have been identified for relocation prior to diving operations. There are no plans to move high radiation sources in the SFP during the scheduled rerack diving period.

6. Discuss your plans to use a vacuum to remove any crud or other debris from the floor of the SFP before and during the SFP re-racking project to maintain diver doses ALARA.

Response

Recent radiological surveys of the planned diving areas in the SFP indicate that exposure levels are low, and there is no significant crud or discernable debris. Normal SFP maintenance practices will provide assurance that prior to starting the reracking project, the pool floor will remain free of any significant crud or debris.

NNECO plans to vacuum the pool floor after divers complete the removal of underwater appurtenances, primarily to support Foreign Material Exclusion control. NNECO anticipates little or no debris generation from other portions of the rerack installation process, particularly since existing fuel racks will not be removed from the fuel pool or otherwise disturbed.

Health Physics will perform underwater surveys during the periods of diving operations, and will require pool vacuuming should it become necessary to maintain diver doses ALARA.

7. **The re-racking of the SFP will result in storage space for roughly 1100 additional fuel assemblies. Discuss what effect the storage of additional fuel assemblies in the SFP will have on the overall evaporation rate from the SFP area and whether this increased evaporation rate will result in an increase in the amount of gaseous tritium released from the SFP.**

Response

Increases in SFP bulk water temperature result in a corresponding increase in SFP evaporation rate. The storage of additional fuel assemblies in the SFP has the potential to increase bulk water temperature and thus increase overall evaporation rate. However, for the proposed rerack change there will be no increase in the design evaporation rate for the SFP, since the design storage capacity of the SFP is not being changed from the current limit of 2169 assembly locations as approved in License Amendment No. 60.[1] The rerack will result in an increase in the total number of physical storage locations from the present 756 locations to 1860 locations. Because the total actual storage locations will remain below the design number of locations, SFP evaporation rate and SFP cooling will remain within current design parameters.

Tritium in the SFP water comes primarily from the pool's connection to the reactor coolant system during refueling operations. Should the SFP evaporation rate increase due to the storage of additional fuel assemblies, there would be a corresponding increase in gaseous tritium release rate as well. Tritium release from buildings other than the containment is an input to the plant design for radiological effluent controls to meet the requirements contained in 10 CFR Part 20 and 10 CFR Part 50, Appendix I. Emission of residual tritium from spent fuel is a contributor to this input, and any increased emission in the SFP due to additional assemblies from a refueling would be within design basis as long as the design capacity of 2169 assemblies is not exceeded. Because the number of stored assemblies proposed by this TS change will not exceed the design capacity of 2169, any release of radioactivity, including tritium, to the environment will not exceed current design bases for radiological effluents.

---

[1] D. H. Jaffe (USNRC) letter to E. J. Mroczka, "Issuance of Amendment (TAC No. 77924)," dated March 11, 1991.

Millstone Station is required to maintain a monitoring program for radiological effluents. This monitoring program includes measurements of radioactivity in effluents and in the environment. It also includes on-going evaluations of changes in patterns of radioactive releases in order to assess the need to make changes to the program. It is for this reason that NNECO continues to monitor and evaluate the Millstone Unit No. 3 SFP as a specific source of tritium releases to the environment. If the magnitude of release of tritium from the SFP should become significant, changes would be initiated to ensure releases to the environment remain acceptable.

8. **Discuss how the storage of the additional spent fuel assemblies will affect the releases of radioactive liquids from the plant.**

<u>Response</u>

The storage of additional spent fuel assemblies in the SFP will have negligible effect on the releases of radioactive fluids from the plant. NNECO does not anticipate the generation of significant additional liquid radwaste as a result of this modification, either as a direct result of the rack installation process or from the operation of the reracked SFP with additional stored spent fuel assemblies.

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Attachment 2

Millstone Nuclear Power Station, Unit No. 3

Response to Request for Additional Information
Spent Fuel Pool Rerack (TAC No. MA5137)
Revised Marked-up Technical Specifications Page

REFUELING OPERATIONS

BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.9.1.2 The soluble boron concentration of the Spent Fuel Pool shall be maintained uniform, and ~~sufficient to ensure that the boron concentration is~~ greater than or equal to ~~1750~~ 800 ppm.

Applicability

Whenever fuel assemblies are in the spent fuel pool.

Action

a. With the boron concentration less than ~~1750~~ 800 ppm, initiate action to bring the boron concentration in the fuel pool to at least ~~1750~~ 800 ppm within 72 hours, and

b. With the boron concentration less than ~~1750~~ 800 ppm, suspend the movement of all fuel assemblies within the spent fuel pool and loads over the spent fuel racks.

SURVEILLANCE REQUIREMENTS

4.9.1.2 Verify that the boron concentration in the fuel pool is greater than or equal to ~~1750~~ 800 ppm every ~~72 hours~~ 7 days.

Attachment 3

Millstone Nuclear Power Station, Unit No. 3

Response to Request for Additional Information
Spent Fuel Pool Rerack (TAC No. MA5137)
Revised Retyped Technical Specifications Page

BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.9.1.2 The soluble boron concentration of the Spent Fuel Pool shall be maintained uniform, and greater than or equal to 800 ppm.

Applicability

Whenever fuel assemblies are in the spent fuel pool.

Action

a. With the boron concentration less than 800 ppm, initiate action to bring the boron concentration in the fuel pool to at least 800 ppm within 72 hours, and

b. With the boron concentration less than 800 ppm, suspend the movement of all fuel assemblies within the spent fuel pool and loads over the spent fuel racks.

SURVEILLANCE REQUIREMENTS

4.9.1.2 Verify that the boron concentration in the fuel pool is greater than or equal to 800 ppm every 7 days.

Docket No. 50-423
B18113

Attachment 4

Millstone Nuclear Power Station, Unit No. 3

Response to Request for Additional Information
Spent Fuel Pool Rerack (TAC No. MA5137)
Additional Questions Regarding Heavy Load Handling

Additional Questions Regarding Heavy Load Handling

1. Regarding lifting devices described in Section 3.3 of the Holtec Licensing Report, provide additional detail with respect to the use of installed equipment and its interface with vendor supplied lifting devices, and the design and qualification standards applied to vendor supplied lifting devices.

Response

The installed 10-ton new fuel receiving and 10-ton new fuel handling cranes will be used to manipulate the new storage racks upon delivery. Section 9.1.4 of the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) provides a description of these load handling systems and their design capabilities. Section 9.1.5 of the FSAR discusses the degree to which these systems conform to the requirements of NUREG-0612, "Control of Heavy Loads," and NRC Bulletin 96-02, "Movement of Heavy Loads Over Spent Fuel, Over Fuel in the Reactor Core, or Over Safety Related Equipment."

Information related to vendor supplied lifting rigs is provided in Section 3.3 of Attachment 5 to the March 19, 1999,[1] submittal. Further details are provided herein as Enclosure 1, which contains five figures depicting the rigging arrangements to be used in handling the storage rack assemblies. These figures are excerpted from the NNECO approved Millstone Vendor Procedure entitled "Onsite Handling & Installation Procedure" to be used by Holtec, and are identified as Exhibits 6.5.1 through 6.5.5. Additional information regarding the required ratings of the components to be utilized is also provided on these figures.

Additionally, all lifting devices employed in this evolution are required to be certified in accordance with Millstone Common Maintenance Procedure C MP 713B, "Lifting and Handling Equipment - Identification and Certification of Contractor Supplied Equipment." Compliance with the requirements of this procedure is required by the bid specification for Holtec rack installation services. As specified within the procedure;

> Contractor-supplied equipment for use at Millstone Station must meet the requirements of the following applicable ANSI standards, procedures, and Federal regulations:
>
> - B30.10c-1992, "Hooks"
> - B30.21c-1992, "Manually Lever Operated Hoists"
> - B30.16-1992, "Overhead Hoists (Underhung)"
> - B30.9b-1993, "Slings"
> - 29 CFR 1910.184, "Slings" - 7/1/92

(1) R. P. Necci letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Modification of Proposed Revision to Technical Specification - Spent Fuel Pool Rerack (TSCR 3-22-98)," dated March 19, 1999.

Holtec is required to provide suitable documentation of compliance with the above standards for all equipment prior to its installation and/or use at the Millstone site.

2. Identify the industry guidelines utilized to establish training standards for use of lifting, upending, and all other aspects of the rack installation process.

Response

NNECO's training program for personnel conducting rigging operations at Millstone is documented in the Millstone Rigging and Handling Program Manual. The program addresses the requirements of 29 CFR 1926.251, "Rigging Equipment for Material Handling," 29 CFR 1910.184, "Slings," and ASME B30.1, "Jacks." This program includes both classroom and practical exercises conducted over a one week period. Successful completion of this course is required in order to perform rigging evolutions at Millstone. Vendor personnel are required to either successfully complete the course or demonstrate proficiency against the course requirements through a test-out process.

3. Provide the weight of the heaviest rack module.

Response

The weight (calculated bounding value) of the heaviest rack module is 18,050 pounds.

4. Clarify the consequences of the rack drop event, particularly with respect to the consequences to the liner and estimated leakage if a liner puncture occurs. If liner puncture occurs, describe sources of makeup and their capacity with regards to the estimated leakage rate.

Response

In NNECO's March 19, 1999, submittal, it is identified on page 9 of Attachment 3 that the SFP liner is punctured and the concrete underlying the puncture zone suffers a small indentation as a consequence of the rack drop event.

The Millstone Unit No. 3 SFP is a stainless steel lined reinforced concrete structure. The liner is approximately 0.25 inches in thickness and is supported by the reinforced concrete slab which is approximately 8 feet thick. Based on information contained in the detailed Holtec report entitled "Mechanical Accident Analysis For Millstone Unit 3," the area of the puncture is roughly equivalent to that of the rack pedestal dimension (i.e., approximately 5 inches in diameter) with a corresponding indentation in the underlying reinforced concrete slab of approximately 2.7 inches. While the concrete is damaged as a result of the event, it retains its structural integrity thereby preventing a significant loss of SFP inventory.

This damage estimate is based on a quarter rack finite element analysis of the stresses induced in the liner and concrete as a consequence of the event. As such, for a single rack, this would correspond to four separate impact areas. However, due to the highly localized nature of the induced stresses, the consequences are considered to be bounded by the quarter rack analysis conclusions. Additionally, the Holtec analysis is based on a 40-foot drop in water. The maximum lift height of the rack assembly will be approximately 43.5 feet in order to clear the curb surrounding the SFP. This difference in lift height is not considered to significantly affect the outcome of the 40-foot drop evaluation.

The actual flow from the liner puncture is not estimated because the flow would essentially be limited to that being absorbed by the concrete itself, which is negligible compared to the SFP makeup capability. Any flow to the area between the liner and concrete would be significantly restricted due to the limited clearance between these elements. An impact rupture of the liner over a weld seam would be collected in the leak chase channels which are normally isolated. In the event that a significant loss of volume should occur, low level alarms in the control room would alert plant operators to the conditions and prompt entry into the appropriate emergency procedure. This procedure has provisions for gravity makeup or forced makeup to the SFP. Additional information regarding SFP makeup sources is described in FSAR Section 9.1.3.2.

In addition to the above, a contingency procedure has been prepared to effect repairs to the liner should a rack drop event of this magnitude occur.

5. Clarify item 5 of Table 3.5 regarding use of "non-customer" lifting devices.

Response

The reference in this entry is to vendor supplied lifting devices. These lifting devices are depicted on the figures provided as Enclosure 1 to this submittal.

6. Clarify the discussion at the beginning of Section 10.5 of the Holtec Licensing Report regarding upending operations.

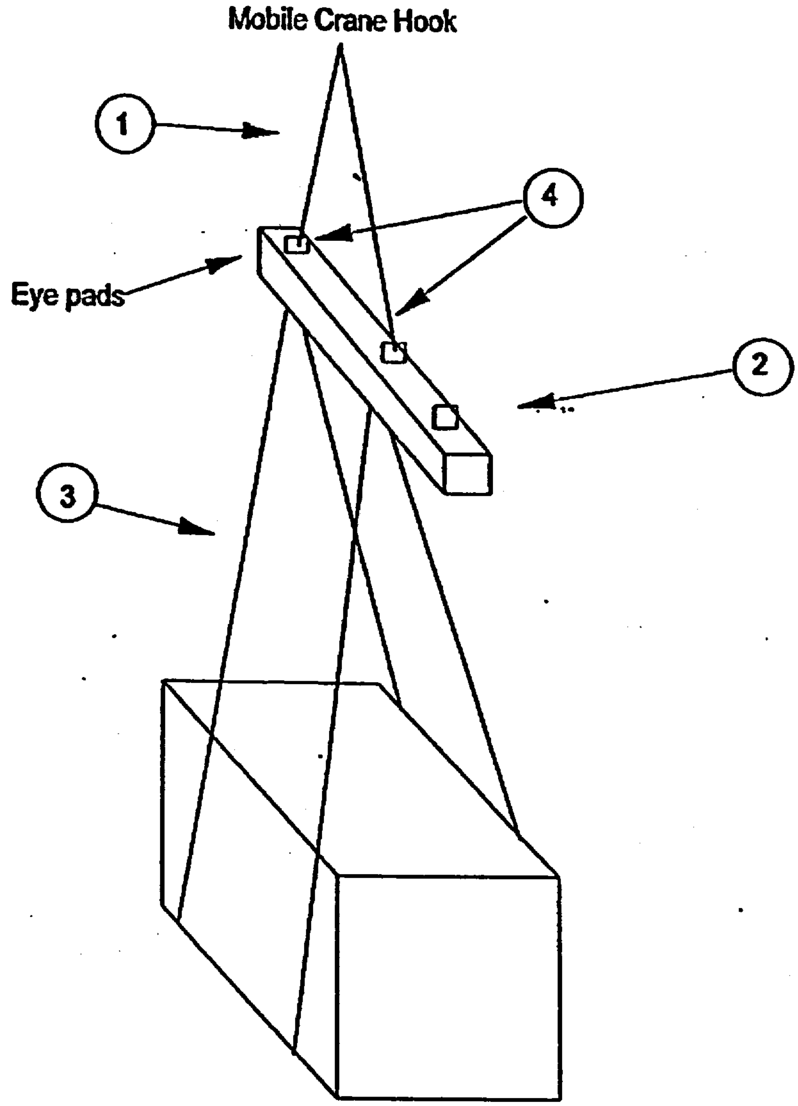
Response

The Exhibit 6.5.3 of Enclosure 1 illustrates the rigging arrangement for the upending process as well as the designated cranes to be used in this process.

Enclosure 1

Additional Questions Regarding Heavy Load Handling
Rigging Configurations - Exhibits 6.5.1 through 6.5.5

EXHIBIT 6.5.1
RACK HORIZONTAL LIFT (Storage Area)



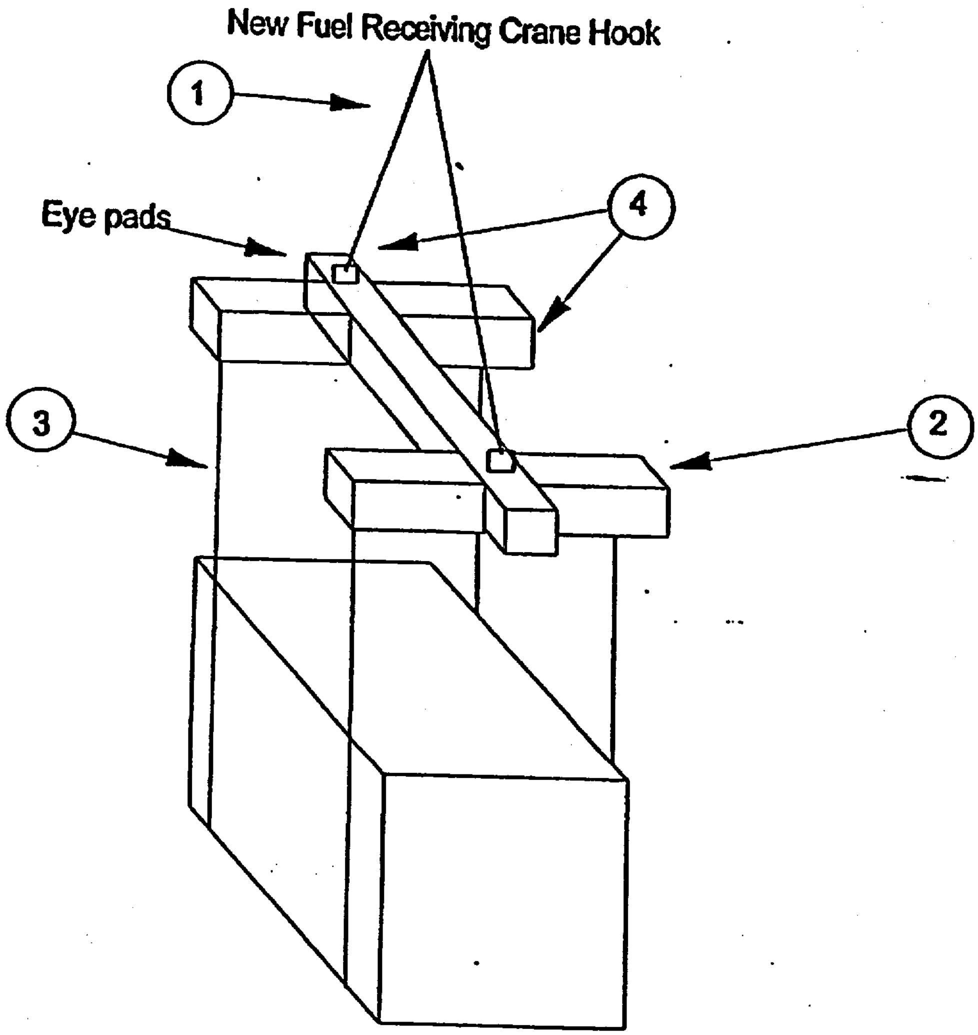
Max. rack weight = 18,050#

ITEM	QUANTITY	DESCRIPTION	MIN. RATING
1	2	NYLON SLINGS	7 TON
2	1	SPREADER BEAM	14 TON
3	2	NYLON SLINGS	10 TON BASKET
4	8	SCREW PIN SHACKLES	12 TON

NOTE:

1. All angles are a minimum of 45 degrees.
2. Additional/alternate rigging may be used as necessary as long as the minimum ratings of each piece of additional/alternate rigging meets the requirements of the above table.

EXHIBIT 6.5.2
ALTERNATE RACK HORIZONTAL LIFT



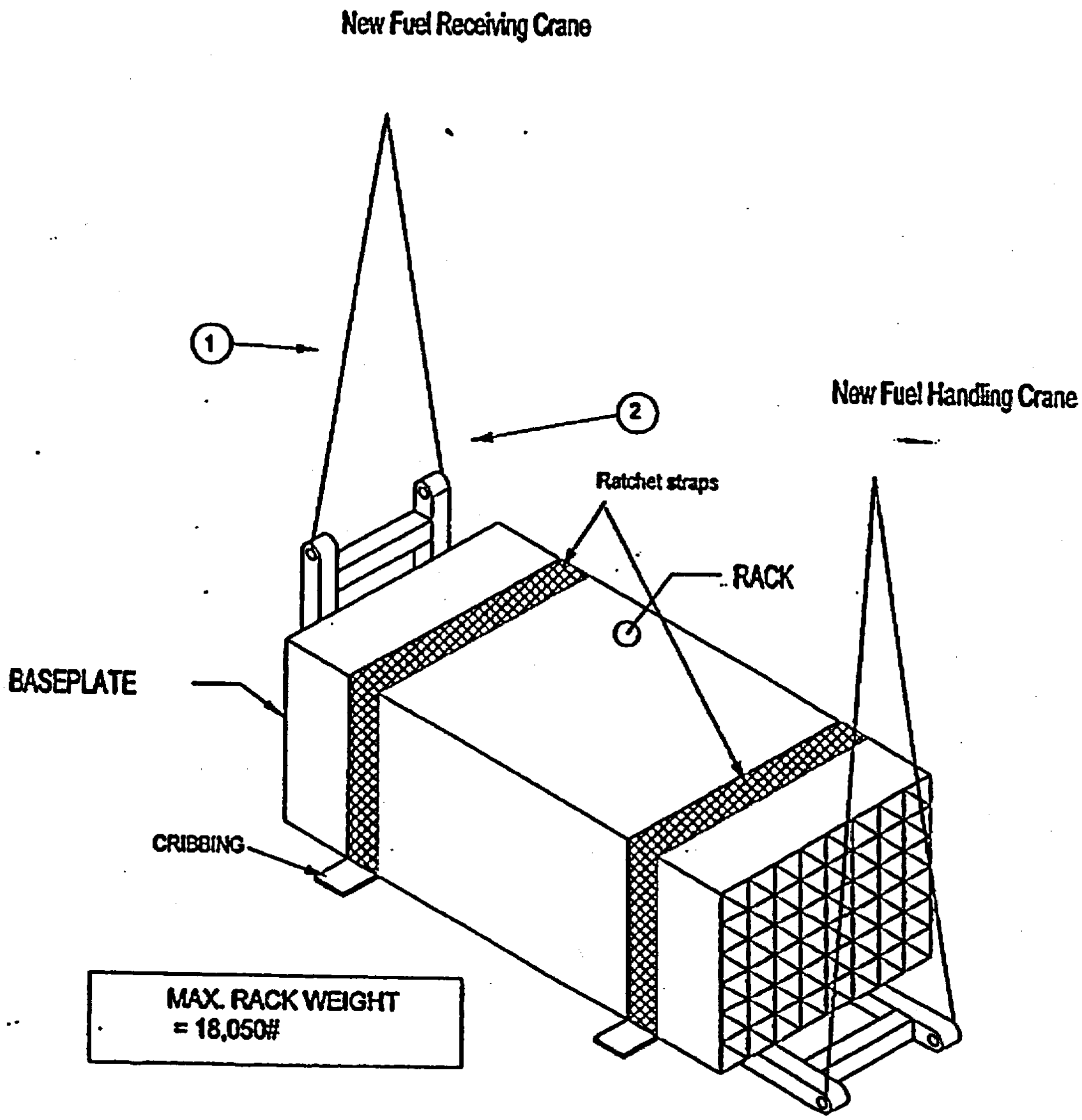
Max. rack weight = 18,050#

ITEM	QUANTITY	DESCRIPTION	MIN. RATING
1	2	NYLON SLINGS	7 TON
2	1	H-SPREADER BEAM	14 TON
3	2	NYLON SLINGS	10 TON BASKET
4	6	SCREW PIN SHACKLES	12 TON

NOTE:

1. All angles are a minimum of 45 degrees.
2. Additional/alternate rigging may be used as necessary as long as the minimum ratings of each piece of additional/alternate rigging meets the requirements of the above table.

EXHIBIT 6.5.3
RIGGING CONFIGURATION FOR RACK UPENDING

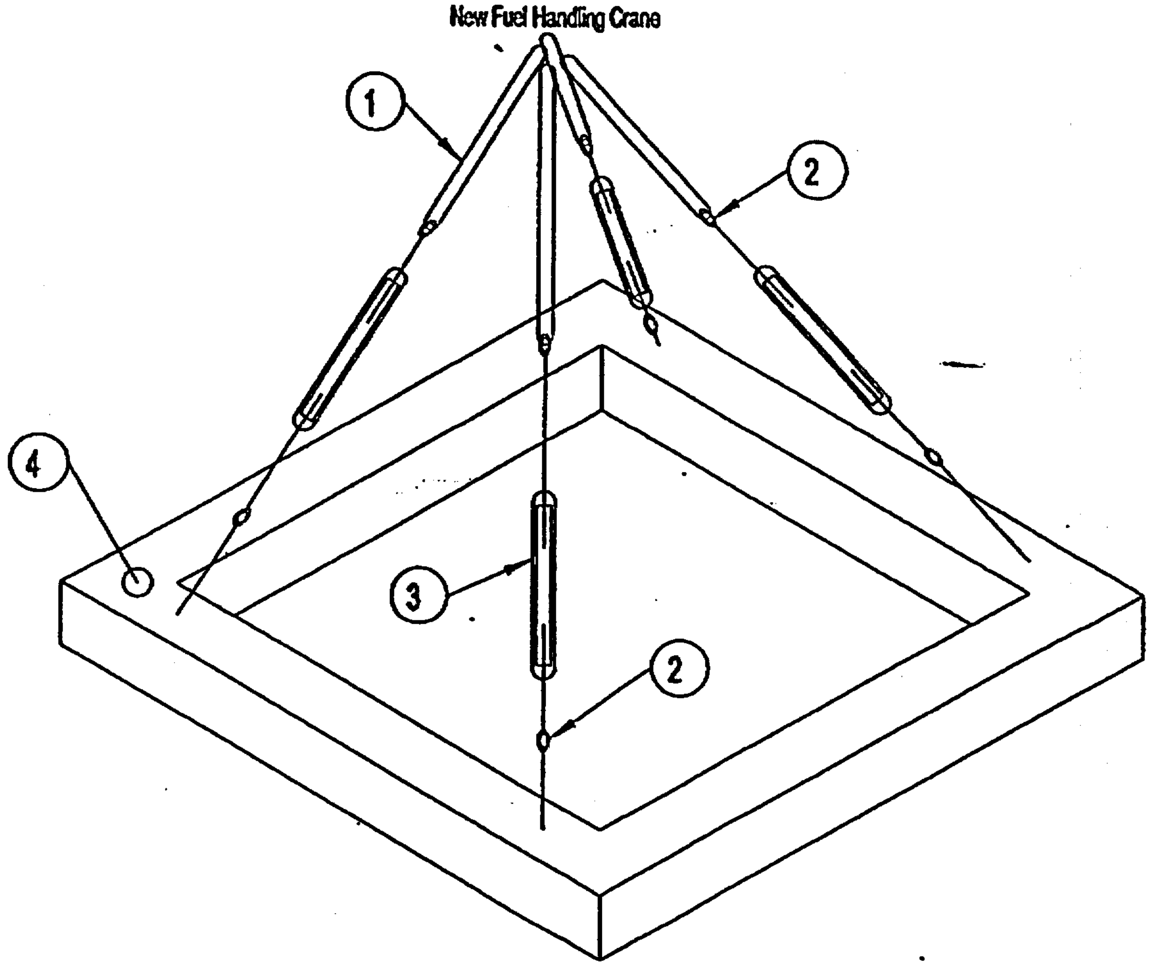


ITEM	QUANTITY	DESCRIPTION	MIN. RATING
1	4	NYLON SLINGS	8 TON
2	4	SHACKLES	12 TON

NOTE: 1. Shackles in Upender (4 min.) rated for 12T min (based on eye pad dimensions).
2. Additional/alternate rigging may be used as necessary as long as minimum ratings of each piece of additional/ alternate rigging meets the requirements of the above table.
3. Minimum angle on all rigging is 45 degrees.

EXHIBIT 6.5.4

NEW RACK LIFT RIG CONFIGURATION



MAX. RACK WEIGHT = 18050#

ITEM	QUANTITY	DESCRIPTION	MIN. RATING
1	4	NYLON SLINGS	10 TON
2	8 (or 4)	SHACKLES	10 TON
3	4	TURNBUCKLES	10 TON
4	1	HOLTEC LIFT RIG	NUREG 0612 QUALIFIED

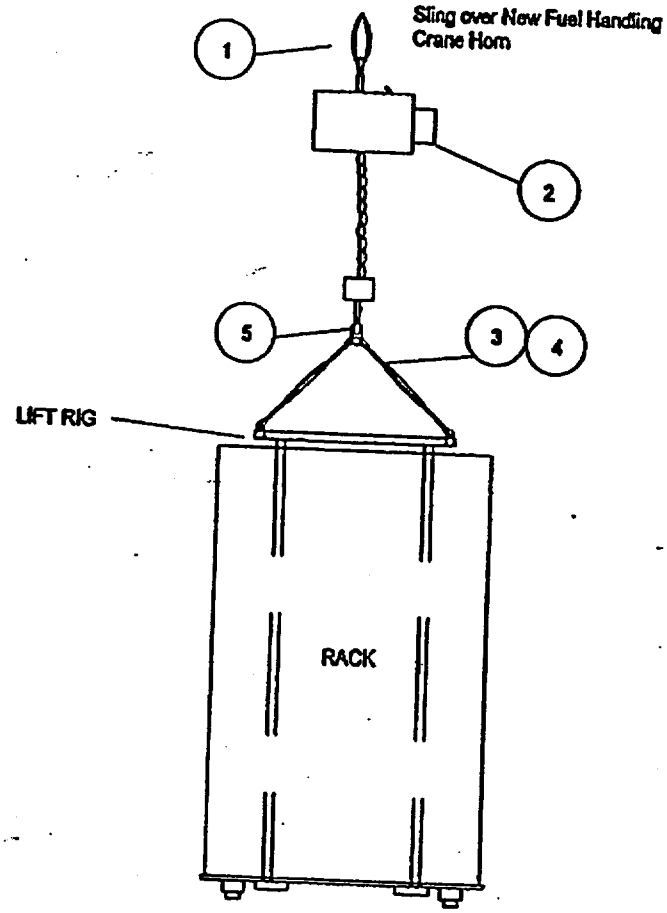
NOTES:

1) MINIMUM RIGGING ANGLE IS 45 DEGREES.

2) ADDITIONAL/ALTERNATE RIGGING MAY BE USED AS LONG AS MINIMUM RATINGS OF EACH PIECE OF RIGGING MEETS THE REQUIREMENTS OF THE ABOVE TABLE; i.e. TURNBUCKLES/SLING ARRANGEMENT MAY BE REPLACED BY JUST SLINGS OF MINIMUM REQUIRED RATING.

EXHIBIT 6.5.5

NEW RACK RIGGING CONFIGURATION



MAX RACK WEIGHT =18050#

ITEM	QUANTITY	DESCRIPTION	MIN. RATING
1	1	NYLON SLING	12 TON
2	1	ELECTRIC HOIST	10 TON
3	4	TURNBUCKLES	10 TON
4	As required	SHACKLES	10 TON
5	2	D-RING	14 TON

NOTES:

1. Minimum rigging angle is 45 degrees.
2. Rigging items may be changed as required as long as the minimum load rating shown above in the particular load path is maintained.
3. A single designed pin/pin connection device can be used in place of item 1 above. The connector will require a rating of 28 ton minimum.