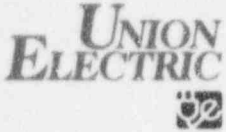


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May 10, 1996

Donald F. Schnell
Senior Vice President
Nuclear

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
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ULNRC-3366


Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT
NRC BULLETIN 96-02,
MOVEMENT OF HEAVY LOADS OVER SPENT FUEL,
OVER FUEL IN THE REACTOR CORE, OR OVER
SAFETY RELATED EQUIPMENT

References: 1) NUREG-0612, issued July, 1980
2) SLNRC 85-19, dated June 12, 1985
3) NRC Generic Letter 85-11, dated
June 28, 1985

The attachment to this letter contains Union Electric's response to NRC Bulletin 96-02. If you have any questions concerning this information, please contact us.

Very truly yours,



Donald F. Schnell

WEK/jdg

Attachment

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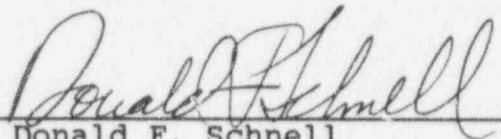
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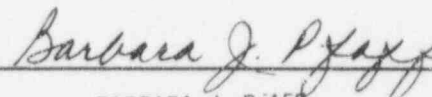
Donald F. Schnell, of lawful age, being first duly sworn upon oath says that he is Senior Vice President-Nuclear and an officer of Union Electric Company; that he has read the foregoing document and knows the content thereof; that he has executed the same for and on behalf of said company with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By



Donald F. Schnell
Senior Vice President
Nuclear

SUBSCRIBED and sworn to before me this tenth day
of May, 1996.



BARBARA J. PFAFF
NOTARY PUBLIC - STATE OF MISSOURI
MY COMMISSION EXPIRES APRIL 22, 1997.
ST. LOUIS COUNTY.

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UNION ELECTRIC RESPONSE TO
NRC BULLETIN 96-02
MOVEMENT OF HEAVY LOADS OVER SPENT FUEL, OVER FUEL IN THE
REACTOR CORE, OR OVER SAFETY-RELATED EQUIPMENT

NRC Bulletin (NRCB) 96-02 requested that licensees provide information concerning the movement of heavy loads over spent fuel, over safety-related equipment, or over the reactor core during power operations. Our response is contained herein.

NRCB Requested Actions

Review plans and capabilities for handling heavy loads while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled) in accordance with existing regulatory guidelines. Determine whether activities are within the licensing basis and, if necessary, submit a license amendment request. Determine whether changes to Technical Specifications will be required in order to allow the handling of heavy loads (e.g. dry storage canister shield and associated lifting devices) over fuel assemblies in the Spent Fuel Pool.

NRCB Required Response - Item 1

For licensees planning to implement activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment within the next 2 years (from date of bulletin), provide a report within 30 days that addresses the plans and capabilities to handle heavy loads while the reactor is at power (in all modes other than cold shutdown, refueling and defueled) in accordance with existing regulatory guidelines. The report should also indicate whether the activities are within the licensing basis and should include, if necessary, a schedule for submission of a license amendment request. Additionally, the report should indicate whether changes to Technical Specifications will be required.

UE Response - Item 1

Union Electric personnel have reviewed the Technical Specifications, Final Safety Analysis Report and the heavy loads report, as well as plans for various work groups involved with making heavy load lifts. For the two year period beginning April 11, 1996, Union Electric does not

plan to make any heavy load lifts while the reactor is at power. In addition, no changes to the Technical Specifications are required.

Control of heavy loads for the Callaway Plant is defined by the "SNUPPS Report On Control Of Heavy Loads." Revision 3 was submitted to NRC by letter dated June 12, 1985 (SLNRC 85-19) and includes a description of all cranes and hoists which may be used over spent fuel, fuel in the reactor core, or safety-related equipment. The report provides discussion on Callaway's compliance with NUREG-0612 with regard to the Phase I and Phase II evaluations. The report shows that there will be no damage to fuel or redundant safety-related equipment which would prevent safe shutdown. This is due to the physical horizontal train separation provided by the plant layout, electrical and mechanical crane interlocks, or administrative controls contained in plant procedures. Load drop analyses results are provided in the report. Load drop analyses and crane system operations are also described in the Callaway Plant FSAR, Section 9.1.

The Callaway Plant reactor vessel/NSSS is located in the containment building and the spent fuel systems are located in the fuel building. Electrical interlocks and plant procedures prevent heavy loads over the spent fuel pool (via the spent fuel pool bridge crane and auxiliary hoist), except for those analyzed. The only exception, as allowed by License Amendment Number 81, is for lifting and handling the spent fuel pool gates. This lift requires the use of redundant rigging to preclude a gate drop on the spent fuel racks. In addition, mechanical stops and electrical interlocks prohibit the cask handling crane from moving any load within 11 feet of the spent fuel pool. In particular, electrical interlocks prevent the lifting of loads heavier than the weight of a spent fuel shipping cask (125 tons), near the spent fuel pool, the new fuel storage rack, or above any safety-related equipment in the fuel building. Therefore, no mode restrictions apply for heavy load lifts in the fuel building.

Containment building cranes are used during Modes 5 and 6 (Cold Shutdown and Refueling). The polar crane and other containment hoists may be used infrequently during Modes 3 and 4 (Hot Standby and Hot Shutdown). These cranes are by procedure, limited to safe load paths which have been analyzed to verify that plant shutdown will be maintained in the event of a load drop. Plant procedures have been developed to ensure that regulatory commitments are met for

the handling of heavy loads. Plant procedure MDP-ZZ-MH004 outlines the general requirements for the control of heavy loads and special lifting devices, including safe load paths and applicable operational modes for crane usage. This administrative procedure ensures that cranes and hoists inside containment will not be used to handle heavy loads during Modes 1 and 2 unless a formal engineering evaluation has been performed which defines acceptable loading conditions and safe load paths.

Miscellaneous hoists used to handle heavy loads in other safety-related buildings may be used in any mode, as the load path is confined to the monorail travel directly above each component. As discussed in the Callaway report on heavy loads, these hoists will not affect redundant safety-related components or safe shutdown.

The Callaway Heavy Loads Program complies with existing regulatory guidelines and heavy loads activities are performed within the existing licensing basis. Program commitments and requirements are controlled and maintained by plant procedures and the FSAR. No technical specifications exist relative to the control of heavy loads and currently, no license amendments are required for Callaway Plant.

NRCB Required Response - Item 2

For licensees planning to perform activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power, and that involve a potential load drop accident that has not been previously evaluated in the FSAR, submit a license amendment request in advance (6-9 months) of the planned movement of the loads so as to afford the staff sufficient time to perform an appropriate review.

UE Response - Item 2

No heavy load handling evolutions over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power, involving a potential load drop accident that has not been previously evaluated in the FSAR, are planned for Callaway. Therefore, no license amendment is required at this time.

NRCB Required Response - Item 3

For licensees planning to move dry storage casks over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power, include in Item 2 above a statement of the capability of performing the actions necessary for safe shutdown in the presence of radiological source terms that may result from a breach of the dry storage cask, damage to the fuel, and damage to safety-related equipment as a result of a load drop inside the facility.

UE Response - Item 3

As described in the response to Item 1 above, interlocks and procedures preclude lifting and movement of a spent fuel shipping cask over or near the spent fuel pool, the new fuel storage rack or any safety-related components. A spent fuel shipping cask can only be handled and lifted within specific limits in the fuel building. Safe plant shutdown would be unaffected due to the physical separation of the fuel building from safe shutdown equipment located in the aux/control buildings and the containment building.

NRCB Required Response - Item 4

For licensees planning to perform activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power, determine whether changes to Technical Specifications will be required in order to allow the handling of heavy loads (e.g. dry storage canister shield plug) over fuel assemblies in the spent fuel pool and submit the appropriate information in advance (6-9 months) of the planned movement of the loads for NRC review and approval.

UE Response - Item 4

No technical specifications exist relative to the control of heavy loads. FSAR Sections 9.1.4, 16.9.2 and 16.9.3 describe the fuel handling system and crane operations which support the heavy loads analysis for Callaway, including the handling of a spent fuel shipping cask and associated components. As previously discussed, this evolution will not affect safe shutdown of the plant and no other evolutions are planned which would require a change to the existing heavy loads analysis or licensing documents.