

UNITED STATES NUCLEAR REGULATORY COMMISSIONENTERGY OPERATIONS, INC.DOCKET NO. 50-458NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO  
FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-47 issued to Entergy Operations, Inc. (the licensee), for operation of the River Bend Station, Unit 1 (RBS) located in West Feliciana Parish, Louisiana.

The proposed amendment would add an exception to the RBS Technical Requirements Manual (TRM), Section TR 3.9.14, current prohibition for travel of loads in excess of 1200 pounds over fuel assemblies in the spent fuel storage. The exception would allow the movement of spent fuel pool watertight gates, which separate the spent fuel pool from the cask and lower transfer pools. Approval of this exception would allow the licensee to perform maintenance and repairs to the gates and watertight seals, provided the licensee complies with the defense-in-depth recommendations, or take alternative measures to compensate for deficiencies in the defense-in-depth approach, addressed in NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants." Corresponding sections of the RBS Updated Safety Analysis Report (USAR) would be revised to be consistent with the exception and to state that the provisions of NUREG-0612 will be met.

The load of the gate (approximately 1600 pounds) and rigging (approximately 400 pounds) exceeds the load analyzed over spent fuel. In accordance with the guidance in Nuclear

Regulatory Commission (NRC) Bulletin 96-02, "Movement of Heavy Loads over Spent Fuel, over Fuel in the Reactor Core, or over Safety-Related Equipment," issued April 11, 1996, and Title 10 of the CODE OF FEDERAL REGULATIONS, Part 50.59 (10 CFR 50.59), these changes have been determined to involve an unreviewed safety question.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Involved a significant increase in the probability or consequences of an accident previously evaluated.

The River Bend Station (RBS) fuel building fuel storage facilities consist of three separate but interconnected stainless steel-lined concrete pools. The spent fuel storage pool is the largest of these pools. Adjacent to the fuel storage pool are the cask pool and the lower inclined fuel transfer (IFTS) pool. Each of these two pools is separated from the fuel storage pool by a full-height wall broken by a watertight gate. The watertight gates are normally open, but are closed to seal their respective pools during cask handling and equipment maintenance operations. It is necessary to lift the gate between the spent fuel pool and the IFTS pool for seal replacement. The total weight of the gate including the rigging equipment is 2000 pounds. This lift is considered as a heavy load lift since it is higher than the current RBS analyzed light load limit of 1200 pounds for movement of loads over the spent fuel pool. RBS TRM 3.9.14 prohibits any load in excess of 1200 pounds from travel over fuel assemblies in the storage pool.

Each of the gates is designed with a pneumatic seal that, when pressurized, seals the respective pool from the spent fuel pool, forming a watertight barrier. No provisions for moving the gates over spent fuel were included in the licensing basis for RBS heavy loads. However, the qualified life for the gate seals necessitates that they be replaced several times over the life of the plant. Therefore, approval of an exception to the current prohibition for loads over the spent fuel pool is required to allow for replacement of the gate seals.

To perform the movement of the gate from its installed position to a position where it can be accessed for seal replacement, an engineering plan that meets the intent of NUREG-0612, "Control of Heavy Loads [at Nuclear Power Plants]," has been developed. There are numerous design features, which comply with NUREG-0612 guidelines, that will preclude the gate from dropping onto the spent fuel assemblies during the movement activity. These features include the design of the lifting devices, design of the cask and fuel bridge cranes, crane operator training, and the use of written procedures. The guidance in NUREG-0612 will be met in all respects, except that in lieu of a single[-]failure-proof crane, the scheme will employ redundant and diverse means to meet the intent of single-failure[-]proof movements.

It is proposed for the subject spent fuel pool gate lift to use one of two rigging schemes that comply with the intent of NUREG-0612 guidance. The first one will be accomplished through the use of Fuel Building bridge crane and the cask crane at the same time to provide the redundancy required to make the lift a single-failure-proof lift and satisfy NUREG-0612 single-failure-proof criteria. The other rigging scheme will involve the use of lifting lugs welded to the overhead structural steel members and special lifting devices that are designed in accordance with NUREG-0612 single-failure-proof criteria.

In the first rigging scheme, the fuel building bridge crane and the cask crane will be used to perform the gate lifting and movement. The intent of NUREG-0612 is that in lieu of providing a single-failure-proof crane system, the control of heavy loads guidelines can be satisfied by establishing that the potential for a heavy load drop is extremely small. The gate lifting using the fuel building bridge crane and cask crane will conform with NUREG-0612 guidelines in that the probability of the gate drop over the spent fuel assemblies is extremely small. Both cranes have a rated capacity of fifteen (15) tons. The maximum weight of the gate and associated lifting devices is one (1) ton. Therefore, there is ample safety factor margin for lifting and movements of the subject spent fuel pool gate. Special lifting devices, which have redundancy or ultimate strength of at least 10 times the lifted load, will also be utilized during the rigging process. Even though neither the fuel building bridge crane or the cask crane is a single-failure-proof crane, rigging the spent fuel pool gate using these cranes will provide the required redundancy that meets the intent of NUREG-0612 single-failure-proof criteria.

In the second rigging scheme, the initial gate lift will be performed through the use of structural steel lugs that are permanently welded to the Fuel Building overhead structural steel girder located over the centerlines of the wall openings

for the two gates that separate the spent fuel pool from the IFTS and the cask pools. For example, the IFTS lower pool gate will be moved northward toward the cask pool opening using the aforementioned structural steel lugs and lifting devices such as chains, slings, and shackles. Once the gate is through the cask pool opening, the movement path will no longer be over irradiated spent fuel. Once through the cask pool opening, the gate will be moved eastward toward the center of the cask pool. The cask crane auxiliary hook will lift the gate inside the cask pool. Finally, the gate will be placed on the Fuel Building floor elevation 113 [feet] adjacent to the cask pool for seal replacement. For the movement of the gate between the spent fuel pool and the cask pool, the distance of the movement is reduced because the gate movement would essentially entail lifting of the gate to above the hinges, rotating it, and moving it through the opening directly into the cask pool. Though seal replacement on the cask pool gate is not necessary at the present time, it may be necessary in the future. As such, the proposed changes would allow movement of either of the two spent fuel pool gates for repair or seal replacement.

The proposed load lift of the fuel pool gate for replacement of the seal conforms to all of the NUREG-0612 guidelines included in Section 5.1.5(1)(a) and 5.1.6. The design of the lifting lugs and associated lifting devices (chains, slings, shackles, hoists, etc.) will conform to the guidelines of NUREG-0612, Section 5.1.6, "Single-Failure Proof Handling System." The auxiliary hook of the cask crane has a rated capacity of 15 tons. The cask crane is not a single-failure[-]proof crane. However, it meets NUREG-0612 criteria of Section 5.1.1(6) and is designed for seismic loading. As discussed above, the cask crane, alone, will handle the gate only after the gate is located inside the cask pool where drop of the gate above the spent fuel rack is no longer a concern. The cask pool area has been evaluated for an accidental drop of the spent fuel cask. There is no safety-related equipment inside the cask pool. The maximum weight of the gate and associated lifting devices is 2000 pounds. Therefore, there is ample safety factor margin for lifting the gate with the cask crane.

The probability and consequences of a seismic event are not affected by the proposed gate lifting. The consequences of a seismic event during the gate lifting are insignificant since both cranes, the fuel building bridge crane and the cask crane, are seismically qualified for the lifted load. In addition, the design of all rigging devices conforms to NUREG-0612 guidelines, with a factor of safety of 10 ultimate strength for the weight of the load.

Consistent with the defense-in-depth approach outlined in NUREG-0612, the movement will be conducted according to load handling instructions, operator training will be conducted on the activity prior to the movement, and the equipment will be inspected and checked before the movement will be performed. NUREG-0612 gives guidance that when a particular heavy load must be brought over spent fuel, alternative measures may be used. The combination of preventative measures, as proposed, minimizes the risks inherent in hauling large loads over spent fuel to permissible levels. With these provisions and the guidance in NUREG-0612, the increase in probability of a load drop is negligible.

It is therefore concluded that the proposed gate lifting and movement does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The lifting of the fuel pool gate in the spent fuel pool as described above, minimizes the possibility of a heavy load drop onto spent fuel assemblies as not credible in accordance with NUREG-0612 single-failure-proof criteria. In addition, movement of the gate in the cask pool using the cask crane does not create the possibility of a new or different kind of accident. The cask drop accident scenario in the current RBS licensing basis, since the cask crane is not a single-failure-proof crane, envelops the accidental drop of the gate in the cask pool during handling by the cask crane. That is, the analyzed weight of a cask is 125 tons versus the weight of the gate and the associated rigging of 1 ton.

It is therefore concluded that the proposed gate lifting does not create the possibility of a new or different kind of accident from any previously analyzed.

3. Involve a significant reduction in a margin of safety.

By following the guidance in NUREG-0612, the movement of the spent fuel pool gates will have no impact on the analyses of postulated design basis events for RBS. The NRC guidance provides an acceptable means of ensuring the appropriate level of safety and protection against load drop accidents. Therefore, there is no reduction in the margin of safety associated with postulated design basis events at RBS in allowing the proposed change to the RBS licensing basis. RBS will continue to meet its commitment to comply with NUREG-0612.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such

that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D59, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By **JAN 28 2000**, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and accessible electronically through the ADAMS Public Electronic Reading Room link at the NRC Web site (<http://www.nrc.gov>). If a request for a hearing or petition for leave to intervene is filed by the

above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion.

Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to



Mark Wetterhahn, Esq., Winston & Strawn, 1400 L Street, NW., Washington, DC 20005,  
attorney for the licensee.

Non-timely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated December 16, 1999, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and accessible electronically through the ADAMS Public Electronic Reading Room link at the NRC web site (<http://www.nrc.gov>).

Dated at Rockville, Maryland, this 17th day of December 1999.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Fretz, Project Manager, Section 1  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation