

January 3, 1989

Docket No. 50-458

Gulf States Utilities  
ATTN: Mr. James C. Deddens  
Senior Vice President  
Post Office Box 220  
St. Francisville, Louisiana 70775

Dear Mr. Deddens:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT  
IMPACT - RIVER BEND STATION, UNIT 1 (TAC NO. 69517)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to your application dated September 28, 1988, as supplemented November 30, 1988, for an amendment to revise the provisions in the Technical Specifications to (1) revise the primary containment integrity requirements to permit the performance of a limited number of local leak rate tests while handling irradiated fuel within the primary containment; and (2) to increase the decay time required for the irradiated fuel before the vent and drain line pathways can be opened for the purpose of performing the local leak rate tests.

This assessment has been forwarded to the Office of the Federal Register for publication.

Sincerely,

/s/

Walter A. Paulson, Project Manager  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
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*Handwritten notes and signatures:*  
Subject to change  
See copy of  
3/24/89  
J. E. A.

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JCalvo  
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*Subject to review 3*  
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*By EAT*



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

January 3, 1989

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Sincerely,

A handwritten signature in cursive script that reads "Walter A. Paulson".

Walter A. Paulson, Project Manager  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

Mr. James C. Deddens  
Gulf States Utilities Company

River Bend Nuclear Plant

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UNITED STATES NUCLEAR REGULATORY COMMISSIONGULF STATES UTILITIES COMPANYDOCKET NO. 50-458ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

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

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action

The proposed amendment would revise the provisions in Technical Specification (TS) Definition 1.31 and in TS 4.6.1.2 to modify the primary containment integrity requirements to permit the performance of a limited number of local leak rate tests while handling irradiated fuel within the containment. TS 3.9.4 would be modified to increase the decay time required for irradiated fuel before the vent and drain line pathways can be opened for the purpose of conducting local leak rate surveillance testing.

The proposed action is in accordance with the licensee's application for amendment dated September 28, 1988, as supplemented November 30, 1988.

The Need for the Proposed Action:

The proposed change to the TS is required to relieve the licensee from the unnecessary hardship due to the current requirement to suspend handling of irradiated fuel if primary containment integrity is not maintained. As a result of this requirement, most Type C leak rate tests required by Appendix J

to 10 CFR Part 50 cannot be performed while refueling is in progress. The requested TS change would permit leak rate testing in parallel with refueling to reduce the refueling outage duration because a limited number of vent and drain pathways could be opened while refueling operations are underway.

#### Environmental Impacts of the Proposed Action

The Commission has completed its evaluation of the proposed revisions to the Technical Specifications. The proposed revisions would modify the provisions in Technical Specification Definition 1.31 and TS 4.6.1.2 to revise the primary containment integrity requirements during fuel handling to permit up to twenty vent and drain line pathways to be opened for the purpose of performing local leak rate tests. TS 3.9.4 would be modified to increase the decay time required for the irradiated fuel from 24 hours to 80 hours before the vent and drain line pathways can be opened for the purpose of performing the local leak rate tests.

The NRC staff performed an evaluation of the offsite radiological consequences resulting from a postulated fuel handling accident inside the primary containment while performing Type C leak rate testing with up to 20 vent and drain lines opened.

In the River Bend Safety Evaluation Report (NUREG-0989) dated May 1984, the staff previously evaluated a postulated fuel handling accident using assumptions contained in Positions C.1.a through C.1.k of Regulatory Guide 1.25 and the procedures specified in Standard Review Plan (SRP) Section 15.7.4 (NUREG-0800). A 24 hour delay between shutdown and accident was used in the evaluation. In addition, the specified assumptions postulate a single dropped fuel assembly, the kinetic energy of which is expended with perfect mechanical efficiency in breaking open the maximum possible number of fuel rods.

Instantaneous release of noble gases and radioiodine vapor from the gaps of the broken rods occurs as gas bubbles pass up through the water covering the fuel. All radioactivity reaching the primary containment atmosphere is exhausted within 2 hours through engineered safety feature filtered exhaust systems to the environment.

In this current evaluation, the staff performed the offsite dose calculations using the same assumptions previously used for a postulated fuel handling accident with the following two exceptions:

1. An unmitigated release of 70.2 CFM from the primary containment through up to 20 open vent and drain lines in addition to the maximum allowable unidentified primary containment leakage of 0.26 percent per day; and
2. A credit was given for 10 percent mixing of airborne radioactive material within primary containment atmosphere prior to release to the secondary containment (the licensee proposed 50 percent mixing credit).

The offsite doses computed for the River Bend Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) boundaries using the above assumptions, assumptions contained in Regulatory Guide 1.25, and the procedures specified in Standard Review Plan (SRP) Section 15.7.4, were 21 rem to the thyroid and 6 rem to the whole body at the EAB and 2.7 rem to the thyroid and 0.6 rem whole body at the LPZ. These calculated offsite doses are well within the exposure guidelines of 10 CFR 100 and are within the acceptance criteria given in Standard Review Plan Section 15.7.4.

The change does not otherwise affect the probability or consequences of any accident.

The tasks that the licensee's personnel will perform to accomplish the tests will not be significantly different from those tasks performed during previous leak rate testing. Thus, there is no significant increase in the allowable individual or cumulative occupational radiation exposure.

There are no changes being made in the types of any effluents that may be released offsite.

Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential nonradiological impacts, the proposed change to the TS involves systems located within the restricted areas as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on October 24, 1988 (53 FR 41634). No request for hearing or petition for leave to intervene was filed following these notices.

#### Alternative to the Proposed Action

Since the Commission concluded that there is no significant adverse environmental effect that would result from the proposed action, alternatives with equal or greater environmental impact need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce the impact of plant operations on the environment and would result in reduced operational flexibility.



Alternative Use of Resources

This action does not involve the use of resources not previously considered in the Final Environmental Statement for the River Bend Station, Unit 1, dated January 1985.

Agencies and Persons Consulted

The NRC staff has reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

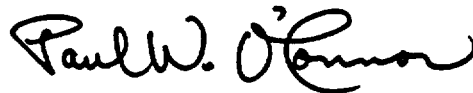
The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon this environmental assessment, we conclude that the proposed action will not have a significant adverse effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated September 28, 1988, and supplement dated November 30, 1988, which are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the Government Documents Department, Louisiana State University, Baton Rouge, Louisiana 70803.

Dated at Rockville, Maryland, this 3rd day of January, 1989.

FOR THE NUCLEAR REGULATORY COMMISSION



Paul W. O'Connor, Acting Director  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation