

July 11, 1991

Docket Nos. 50-272
and 50-311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger

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SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
INCREASED FUEL ENRICHMENT IN THE REACTOR, THE NEW FUEL STORAGE RACKS
AND SPENT FUEL POOL, SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1
AND 2 (TAC NOS. 79130 AND 79131)

In response to your letter dated November 19, 1990, and supplemented by
letters dated April 1, 1991, May 20, 1991 and June 14, 1991, the Commission
is considering issuance of an amendment for Salem Nuclear Generating Station,
Units 1 and 2, to allow the licensees to place fuel with an initial
enrichment of up to 4.55 w/o U-235 in the new fuel racks, the spent fuel
pool and in the reactor core.

We have enclosed a copy of the Environmental Assessment and Finding of No
Significant Impact for this proposed amendment which is being forwarded to the
Office of the Federal Register for Publication.

Sincerely,

Stephen Dembek

for James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure: Environmental Assessment

cc w/enclosure:
See next page

*Previously Concurred

OFC	:PDI-2/LA	:PDI-2/PM	:*OGC	:PDI-2/D
NAME	:MO'BRIEN	:JSTONE:tlc	:APH	:WBUTLER
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Vice President and Chief Nuclear
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Sincerely,

A handwritten signature in cursive script, appearing to read "James C. Stone", is written above the typed name.

FOR James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure: Environmental Assessment

cc w/enclosure:
See next page

Mr. Steven E. Miltenberger
Public Service Electric & Gas Company

Salem Nuclear Generating Station

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UNITED STATES NUCLEAR REGULATORY COMMISSION
PUBLIC SERVICE ELECTRIC & GAS COMPANY
PHILADELPHIA ELECTRIC COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2
DOCKET NOS. 50-272 AND 50-311
ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License Nos. DPR-70 and DPR-75, issued to Public Service Electric and Gas Company, et. al. (the licensees) for operation of the Salem Nuclear Generating Station, Units 1 and 2, located at the licensees' site in Salem County, New Jersey.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed amendment would allow the licensees to place fuel with a maximum initial enrichment of 4.55 weight percent of U-235 (w/o U-235) in the reactor, new fuel storage racks and the spent fuel storage racks.

The proposed action is in accordance with the licensees' application for amendments dated November 19, 1990, as supplemented by letters dated April 1, 1991, May 20, 1991 and June 14, 1991.

The Need for the Proposed Action:

The licensees intend to increase the fuel enrichment for the Salem units to a maximum initial value of 4.55 w/o U-235. New fuel will be stored in the

new fuel storage racks while awaiting loading into the core. It is anticipated that the higher enrichment fuel will be used for the Salem 1, Cycle 11 reload and for the Salem 2, Cycle 8 reload. Currently, fuel with a maximum initial enrichment of 4.05 w/o U-235 can be stored in the new fuel storage racks, placed in the reactor or stored in the spent fuel storage pool.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revisions to the Technical Specifications (TSs). The proposed amendments would allow fuel with a maximum initial enrichment of 4.55 w/o U-235 to be stored in the new fuel storage racks, placed in the reactor or stored in the spent fuel storage pool. Currently, fuel with a maximum enrichment of 4.05 w/o U-235 may be placed in the aforementioned locations. Changes to the burnup limits have not been requested. Therefore, use of fuel with a maximum enrichment of 4.55 w/o U-235 would not significantly increase the probability of consequences of any accidents previously analyzed. No significant changes in the types or amounts of radiological effluents, during normal operation or postulated accidents, that may be released offsite are incurred by the increased w/o U-235 enrichment. As a result, no significant increase in the individual or cumulative occupational radiation exposure is noted.

Therefore, because the proposed changes do not increase the probability or consequences of accidents, no changes are being made in the types or amounts of any radiological effluents that may be released offsite and there is no significant increase in the allowable individual or cumulative occupational radiation exposure, 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 TSs involves systems located within the restricted area as defined by 10 CFR Part 20. The proposed change will not result in a measurable change to the nonradiological plant effluents and therefore will not have any environmental impact.

The environmental impacts of transportation resulting from the use of higher enrichment fuel and extended irradiation are discussed in the staff assessment entitled, "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation", published in the FEDERAL REGISTER on August 11, 1988 (53 FR 30355). As indicated therein, the environmental cost contribution of the proposed increase in the fuel enrichment and irradiation limits are either unchanged or may, in fact, be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c). The licensees confirmed that this analysis is applicable to the requested change.

Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendments.

Alternative to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendments. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement Related to Operation of Salem Nuclear Generating Station, Units 1 & 2," dated April 1973.

Agencies and Persons Consulted:

The NRC staff reviewed the licensees' 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 amendments.

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

For further details with respect to this action, see the application for amendments dated November 11, 1990, and supplements dated April 1, 1991, May 20, 1991 and June 14, 1991, which are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC 20555 and at the Salem Free County Public Library, 112 West Broadway, Salem, New Jersey 08079.

Dated at Rockville, Maryland, this 11th day of July 1991.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation