P.O. Box 1260, Lynchburg, Va. 24505 Telephone: (804) 384-5111

June 28, 1977

DOCKET STN 50-561

Office of Nuclear Reactor Regulation
ATTN: Mr. Roger S. Boyd, Director
Division of Project Management
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: B-SAR-205

Transmittal of Amendment 16

References: (1) J. H. Taylor to R. S. Boyd, "B-SAR-205 -Revised B&W Positions," June 3, 1977

> (2) J. H. Taylor to R. S. Boyd, "B-SAR-205 -Revised B&W Position," June 4, 1977

Dear Mr. Boyd:

The Babcock & Wilcox Company herewith submits sixty copies of B-SAR-205 Amendment 16 for review.

This amendment includes the following specific items:

- (1) In compliance with a request by the Staff, Table 6.2-32 has been revised to show mass and energy discharge rates from each side of the break and to include break areas. The values shown for the postulated break in the core flood line have also been corrected to account for the presence of the 9-inch nozzle at the reactor vessel. Additional modifications to Table 6.2-32 in this amendment are:
 - the stagnation pressure and stagnation enthalpy bases used in computing discharge flows have been specified,
 - 2) data has been added for a pressurizer surge line break in the 14-inch schedule 160 piping,
 - 3) the discharge from the pressurizer side for the spray line break is based upon saturated vapor fluid propperties instead of saturated liquid, and
 - 4) the stagnation pressure within the pressurizer has been corrected to 2219.4 psi from 2232.2 psi

- Mr. Roger S. Boyd
- (2) Section 3.11 has been revised to clarify the B&W position with regard to environmental temperature qualification of safety-related instrumentation and control equipment. As requested by the Staff, this revision includes reference to specific environmental temperature profiles as a basis for qualification. Section 3.11.6 has also been revised to include appropriate interfaces.
- (3) In compliance with a request by the Staff, Section 15.1.4, which discusses postulated moderator dilution accidents, has been revised to include in the discussion the line which bypasses the makeup tank and to clarify the basis for final termination of the deboration. Specifically, operator action for termination of both cases (full-power and refueling) has been addressed and also included in the operating sequence diagram (Figure 15C.4). Information has been added to show that ample time is available for the operator to perform this function.
 - In addition, with regard to the revisions made to Section 15.1.4, the responses to NRC requests 212.178 and 212.181 have been modified for consistency. Table 6.3-7 has also been modified to clarify footnote (b) and to add an additional footnote (c), which identifies valves which are locked closed during refueling.
- (4) As committed in Reference (1), the revised B&W positions concerning fracture toughness testing requirements and classification of certain CA & BR system components, as described in the attachment to Reference (1) are being formally included in the B-SAR-205 with this amendment.
- (5) As committed in Reference (2), the revised B&W position with regard to methods to be used for determining delta ferrite levels in austenitic stainless steel welds, as described in the attachment to Reference (2), is being formally included in the B-SAR-205 with this amendment.
- (6) In accordance with a suggestion by the Staff, Tables 9.3-2, 9.3-5 and 9.3-8 have been clarified to note that where more than one component of a given type is specified, the data provided is for a single unit.
- (7) Table 3.9-7, which describes design pressure limits for Category 1 ASME Section III valves, has been revised to show correct subscripts.

Babcock & Wilcox

Mr. Roger S. Boyd Page 3 June 28, 1977

An additional B-SAR-205 binder is also being distributed with this amendment. Instructions for filing B-SAR material in this additional binder are included with the instructions for filing this amendment.

Very truly yours,

ames H. Taylor Manager, Licensing

JHT:dsf Enclosures

cc: R. B. Borsum (B&W)(2)

U. S. Nuclear Regulatory Commission (1) Office of Inspection and Enforcement - Region IV 611 Ryan Plaza Drive - Stuie 1000 Arlington, Texas 76012

Mr. Neil Thomasson (3) Attn: Loretta Long Office of Radiation Programs Environmental Protection Agency Room 647A East Tower Waterside Mall 401 M Street, S.W. Washington, D.C. 20460

Mr. A. J. Oswald (1) EG&G Idaho, Inc. P. O. Box 1625 Idaho Falls, Idaho 83401

Babcock & Wilcox

STATE OF VIRGINIA) SS. Lynchburg CITY OF LYNCHBURG)

James H. Taylor, being first duly sworn, deposes, and says: That he is the Manager of the Licensing Section of the Nuclear Power Generation Division, THE BABCOCK & WILCOX COMPANY, the applicant herein; that he is authorized to submit the foregoing on behalf of said applicant; that he has read the foregoing and knows the contents hereof; and believes the same to be true to the best of his knowledge.

Dated: wre 22, 1977

Subscribed and sworn to before me, this day of June, 1977.

Hedlet V March Notary Public in and for the State of Virginia, City of Lynchburg