

June 5, 1997

Mr. Ian C. Rickard
Director, Operations Licensing
ABB Combustion Engineering Nuclear Operations
P.O. Box 500
2000 Day Hill Road
Windsor, CT 06095-0500

SUBJECT: EVALUATION OF CERTAIN CEA MISOPERATION EVENTS

Dear Mr. Rickard:

The NRC staff has reviewed the information presented in your letter of April 24, 1997 (PO-97-027), and at the meeting held at NRC Headquarters on April 29, 1997, concerning the withdrawal of a single control element assembly (CEA) to within the deadband and the slip of a part length rod from 50 percent to 90 percent inserted. Based on the information provided in your letter and at the meeting, it appears that a single CEA withdrawal event can be initiated by operator error and part length slip events have previously occurred in CE-designed plants. In addition, Standard Review Plan 15.4.3 of NUREG-0800 specifically mentions dropped rods and single rod withdrawal as two types of control rod misoperation events that should be considered for pressurized water reactors. Therefore, we have concluded that these two events can be expected to occur one or more times during the life of a plant and should be considered to be anticipated operational occurrences (AOOs). As such, these events should be evaluated on a cycle-by-cycle basis, from a range of initial conditions which encompass all allowed steady-state operational configurations, to determine whether they are limiting in terms of thermal margin requirements, as required by General Design Criterion 10.

Based on the above, ABB and their fuel customers who perform their own reload analyses should consider these two events during each reload design. ABB should also consider whether erroneous guidance was given to any of their licensees which may be reportable under the provisions of 10 CFR Part 21. If you have any questions on this matter, please feel free to contact me at (301) 415-2895.

Sincerely,

/original signed by/
James Lyons, Acting Chief
Reactor Systems Branch
Division of Systems Safety and Analysis
Office of Nuclear Reactor Regulation

cc: Norton Shapiro, ABB
Steven O'Hearn, ABB

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ABB-Combustion Engineering, Inc.

cc: Mr. Charles B. Brinkman, Director
Nuclear Systems Licensing
ABB-Combustion Engineering, Inc.
Post Office Box 500
2000 Day Hill Road
Windsor, Connecticut 06095-0500

Mr. Ian C. Rickard, Director
Operations Licensing
ABB-Combustion Engineering Nuclear Operations
Post Office Box 500
2000 Day Hill Road
Windsor, Connecticut 06095-0500

Mr. Charles B. Brinkman, Manager
Washington Nuclear Operations
ABB-Combustion Engineering, Inc.
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852