



BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.

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Department of Nuclear Energy

February 29, 1980

Mr. Robert L. Ferguson
Plant Systems Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Calvert Cliffs, Fire Protection Review, Item 3.2.4, 3.2.5, and 3.2.6.

Dear Bob:

Attached are items 3.2.4, Ventilation Duct Penetrations, and 3.2.5/3.2.6
Electrical and Piping Penetration Fire Resitance for the Calvert Cliffs
Nuclear Power Plant.

Respectfully yours,

Robert E. Hall, Group Leader
Reactor Engineering Analysis

REH:EAM:sd
attachment

cc.: W. Kato wo/att.
 T. Lee
 E. MacDougall
 V. Panciera

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CALVERT CLIFFS

Fire Protection Review

Item 3.2.4 - Ventilation Duct Penetrations

SER Section 3.2.4 indicates that the licensee has verified that all ventilation duct penetrations of fire barriers are protected with UL or FM listed fire dampers which will close automatically in the event of a fire, and the gaps between the ducts and the barriers are sealed. Fire rating of the dampers will be evaluated and appropriate modifications provided as necessary.

By letter dated November 13, 1979, the licensee stated that the fire dampers provided in ventilation duct penetrations of fire barriers are one and one-half hour rated fusible link operated. The licensee has concluded that the rating of each of these dampers is adequate for the fire hazard. The licensee's fire hazard analysis identified ventilation duct penetrations in several more fire barriers in which fire dampers must be installed. Three hour rated fusible link fire dampers will be installed in these ventilation duct penetrations.

We accept the licensee's conclusions regarding the required ratings of fire dampers in the plant and recommend that the staff accept this item subject to the installation verification. The licensee's response included a drawing detail which showed that the installed fire dampers are located adjacent to the fire barrier. We recommend that the staff require the licensee to verify that this method of installation conforms to the conditions of the listing of the fire damper by the testing laboratory.

Items 3.2.6 and 3.2.7 - Electrical and Piping Penetration Fire Resistance

SER Sections 3.2.6 and 3.2.7 indicate that the licensee will provide results of a standard ASTM E-119 test to demonstrate:

- o The adequacy of fire resistance of the Calvert Cliffs Electrical Penetrations, and
- o That piping penetrations have fire-resistance ratings commensurate with fire hazards on both sides of the barriers.

By letter dated September 14, 1979, the licensee submitted a proposed penetration fire test method and criteria. On November 5, 1979, the staff telecopied to the licensee comments and concerns about the proposed test procedure.

By letter dated January 29, 1980, the licensee provided a revised test procedure which included some of the staff's comments and indicated that the proposed test would take place during February, 1980. The final results would be provided to the NRC staff in March, 1980. The staff reviewed this revised procedure and forwarded its comments and concerns to the licensee.

We will complete our evaluation following receipt of the test results.