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NOTES:

RECIPIENT AFFILIATION Plant Systems Branch

SUBJECT: Forwards input on Item 5.15.6, diesel generator room for fire protection review.

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Department of Nuclear Energy

April 17, 1980

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

Duane Arnold, Fire Protection Review, Item 5.15.6.

Dear Bob:

Attached is Brookhaven National Laboratory's input on Item 5.15.6, Diesel Generator Room, for the Duane Arnold nuclear power plant.

Respectfully yours,

Robert E. Hall, Group Leader Reactor Engineering Analysis

REH: EAM: sd attachment

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DUANE ARNOLD

Fire Protection Review

Item 5.15.6 - Diesel Generator Room

As part of the fire protection review for Duane Arnold, the licensee submitted a Fire Hazards Analysis Report dated June, 1979. On page III-90 of that report, the licensee indicated their intention to reroute the turbine lube oil piping located in one of the diesel generator rooms (Zone 8-F) to outside the room, thus eliminating the potential hazard in Zone 8-F.

Since this item was included in the Fire Hazards Analysis, our review was conducted with the assumption that the turbine lube oil piping would not be located in Zone 8-F. Therefore, the item was not delineated in either Section 3.1 or 3.2 of the Duane Arnold SER, but mentioned only in Section 5.15.6.

In their letter dated March 7, 1980, the licensee indicated that they no longer intend to relocate the lube oil piping to outside the diesel generator room. As an alternate solution, they are proposing to provide a guard pipe and drain system to eliminate the hazard. The guard pipe will be seismically classified and the drain will be routed to the turbine building.

We recommend that the licensee's proposal to provide a guard pipe for the lube oil pipes in lieu of relocating them to outside the diesel generator room not be accepted. Drawing No. M-374, submitted previously by the licensee indicates the presence of one 2 inch, one 3 inch, one 4 inch, and one 8 inch lube oil pipes in Zone 8-F. We feel that having such a large potential fire hazard in the diesel generator room, an area without automatic suppression, could jeopardize the safe shutdown of the plant. Seismic design does not add to the reliability of the pipe from mechanical or external fire damage.

We recommend that the licensee proceed as stated in their Fire Hazards Analysis Report and relocate the lube oil piping so that it is not routed through the diesel generator room.