UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AUG 31 1982

Docket No.: 50-331

MEMORANDUM FOR: G. Lainas, Assistant Director for Operating Reactors
Division of Licensing

FROM: T. P. Speis, Assistant Director for Reactor Safety
Division of Systems Integration

SUBJECT: SAFETY EVALUATION FOR DUANE ARNOLD RCS VENTS

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| Plant Name: | Duane Arnold |
| Docket No.: | 50-331 |
| Responsible Branch: | Operating Reactors Branch #2 |
| Project Manager: | K. Eccleston |
| DSI Review Branch: | Reactor Systems Branch |
| Review Status: | Complete |
| NRC TAC No.: | 44370 |

The attached enclosure is a technical evaluation report on RCS vents for Duane Arnold performed by Energy Incorporated under a Lawrence Livermore National Laboratory contract with the Division of Licensing.

One condition to an otherwise acceptable evaluation of RCS venting capability is that the NRC should review the existing operating procedures and technical specifications for use of existing systems as RCS vents.

RSB has reviewed the existing systems used to remove decay heat from the core and concludes that these systems will at the same time vent the RCS or are available to vent the RCS. Furthermore, operator responses to indications of inadequate core cooling, such as low core water level, are the same for both steam and non-condensible gases. Therefore, RSB concludes that explicit instructions for venting non-condensible gases are not necessary. New emergency procedure guidelines currently under staff review will broaden the scope of procedures used to cope with inadequate core cooling events. The new emergency procedure guidelines utilize existing core cooling systems, and do not alter the staff conclusion that venting is inherent provided that procedures to assure

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core cooling are followed. Based on the above arguments, RSB concludes that the existing systems and methods of core cooling will assure the capability to vent non-condensible gases.

The existing Technical Specifications for the Automatic Depressurization System (ADS) valves require that the valves be operable as a condition for RCS pressurization. The ADS valve accumulator capacity is currently under staff review (TMI action plan item II.K.3.28) to verify that each valve may be opened at least 5 times. Pending satisfactory resolution of item II.K.3.28, RSB finds the existing Technical Specifications on ADS valve operability sufficient to cover the use of ADS valves as vents.

Based on the contractors recommendation that the venting capability be found acceptable with satisfactory resolution of the confirmatory items, and our own internal review, the staff finds the Duane Arnold venting capability acceptable.

Themis P. Speis, Assistant Director
for Reactor Safety
Division of Systems Integration

Enclosure: As Stated

cc: K. Eccleston
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