

AUG 30 1979

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Task A-43
Containment Emergency Sump Performance

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

AUG 30 1979

MEMORANDUM FOR: A. L. Hon, Division of Reactor Safety Research, RES
THRU: W. R. Butler, Chief, Containment Systems Branch, DSS *WB*
FROM: D. V. Pickett, Acting Section B Leader, Containment
Systems Branch, DSS
SUBJECT: COMMENTS ON PROPOSAL BY BURNS AND ROE FOR ANALYSIS OF
INSULATION DEBRIS GENERATION

The Containment Systems Branch has been requested by J. Watt of DSS to review the August 23, 1979 letter from Burns and Roe to you which described their proposed method of accomplishing Tasks 1 & 2 of Task Action Plan A-43, "Containment Emergency Sump Performance." We have the following comments.

Task 1 - Determination of Types of Insulation

1. Containment drawings showing general plant layout and insulation location should be requested. These drawings, which will be used in Task 3 (Distribution of Debris Resulting from Breaks), will be used to determine the pipe break proximity to physical barriers (e.g., grating, crane wall, refueling pool, etc.) that may inhibit travel of the insulation and debris to the containment sump. Pathways for travel from points of origin to the containment floor can be determined from these drawings.
2. The expected operating temperatures and pressure of the enclosed fluid should be identified for each insulated piping system and component. The MEB of DSS has informed the CSB that this information is necessary to predict jet impingement, pipe whip and missile effects.

Task 2 - Generated Insulation - Debris

1. The Burns and Roe proposal calls for a bounding approach to determine the total amount of insulation displaced from a pipe break. In the attached July 18, 1979 letter, the CSB requested that the bounding approach be eliminated in lieu of a more refined analysis that determines the amount, nature and travel direction as a function of time of the insulation pieces as they are blown off a pipe. We reiterate our request since we believe that the assumed insulation behavior made for subcompartment analysis must also be verified.

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We recognize that the schedule of TAP A-43 may preclude this concern from being addressed at this time. If this is the case, we would be interested in seeing this aspect of the issue addressed as either a separate task in TAP A-43 with low priority or as a separate activity within RSR.

Douglas V Pickett

Douglas V. Pickett, Acting Section B Leader
Containment Systems Branch
Division of Systems Safety

Attachment:
As Stated

Distribution:
See attached sheet

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