INTERIM REPORT

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Responsible NRC Individual and NRC Office or Division:

or Division: Mr. Richard Sherry
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Division of Reactor Safety Research

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Prepared for U.S. Nuclear Regulatory Commission Washington, D.C. 20555

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INTERIM REPORT

NRC Research and Technical
Assistance Report
7912200 279



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November 27, 1979

Mr. Richard Sherry
Fuel Behavior Research Branch
Division of Reactor Safety Research
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Rick:

Program Title/Activity Identification

Fission Product Transport Analysis.

Current Progress and Technical Highlights

During October, major efforts were concerned with continuing the TRAP-MELT code uncertainty analyses, completing the analysis of aerosol deposition data, running checkout experiments with the vapor deposition apparatus, contributing to activities of the TMI Examination Task 2.1 Planning Group, and preparing for presentation of a paper at the NRC Water Reactor Safety Meeting.

The vapor deposition experimental equipment and procedures were checked out satisfactorily; however, failure of a steam flow meter caused termination of experiments without a radioactive iodine run being completed. Because of the time lapse expected before a new flow meter is received and because of budgetary constraints, it has been deemed necessary to discontinue the vapor deposition experiments under this current contract.

The aerosol deposition experimental results were successfully correlated and a topical report on this effort is being prepared. This report should be completed and submitted to the NRC during November.

Uncertainty analyses of fission product transport and deposition performed with the TRAP-MELT code are proceeding well. Small designs using four variables have been completed and a larger analysis for TMLB' is scheduled. Completion of these analyses is expected in early December.

Anticipated Accomplishments for November

During November, it is anticipated that the topical report on aerosol deposition will be completed, the TRAP-MELT uncertainty analyses will be nearing

completion, support of the TMI Examination Task 2.1 Planning Group will continue, and a paper will be presented at the NRC Seventh Water Reactor Safety Meeting.

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The estimated and actual cumulative costs are shown in Figure 1.

Sincerely,

James A. Gieseke, Research Leader Physico-Chemical Systems Section

JAG:1d

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