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October 18, 1978

Dr. William V. Johnston, Chief
Fuel Behavior Research Branch
Division of Reactor Safety Research
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C.

Dear Dr. Johnston:

Program Title/Activity Identification

Fission Product Transport Analyses.

Current Progress and Technical Highlights

During June, the agglomeration subroutine was incorporated in TRAP-MELT and tested satisfactorily. It represents the most sophisticated modification to date, as it requires a detailed mass balance not only of a given species of nuclide but also among species. This circumstance required considerable programming effort, particularly because of the extended core storage techniques of the TRAP codes. The method of approach to the functional design of the FPTTF was worked out during this month and creation of the necessary data base begun.

Anticipated Accomplishments

It is anticipated that TRAP-MELT will be completed (to the extent possible without developmental experiments) during July. The planned sensitivity study can then be begun. Work on the functional design of the FPTTF will continue. Design of the lab-scale experimental facility for developing submicron particle deposition velocities from flows anticipated in the primary system of LWR's during meltdown will be begun in July.

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

Sincerely,

James A. Gieseke, Research Leader
Physical Chemistry, Atmospheric Sciences,
and Aerosol Technology Section

JAG:ld

Attachment

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