INTERIM REPORT

Accession No. _____

Contract Program or Project Title:

Steam Generator Tube Rupture Iodine Transport Mechanisms

Subject of this Document:

Steam Generator Tube Rupture Iodine Transport Mechanisms

Type of Document:

Monthly Progress Report for March, 1980

Author(s):

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Prepared for
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Washington, D. C. 20555

INTERIM REPORT

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April 14, 1980

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

Dear Mr. Sherry:

Program Title/Activity Identification

This is the seventh monthly report for the project "Steam Generator Tube Rupture Iodine Transport Mechanisms", which is Task 12 of agreement NRC-04-76-293.

Progress and Technical Highlights for March, 1980

Task I

No activity was undertaken in the assembly of the experimental apparatus. Tests were performed to examine the characteristics of a TV vidicon camera for recording the transient laser-scattering data. Special bench scale check-out experiments were performed using a 1 mw HeNe laser and flowing streams of two different sizes of monodispersed glass beads. Results showed poor contrast due to the automatic intensity compensation built into the electronic circuitry associated with the vidicon. Modifications in the vidicon circuitry are currently being made to obtain the necessary contrast and when completed, the drop measurement system will be ready for assembly into the full experimental flow apparatus.

Task II

No effort was expended in code writing in March.

Anticipated Activities in April

Task I

Fabrication of the experimental apparatus is expected to occur either late in April or early in May. Modifications to the vidicon circuitry will be completed in April.

Task II

Code writing efforts are temporarily suspended awaiting information on steam generator moisture separator characteristics. A trip is planned to Chattanooga to discuss design information with Combustion Engineering in April.

Costs

Costs for March were $2,600 including a fee of $195. Monthly expenditures are shown in Figure 1. The cumulative expenditure on the program is $60,645. At this stage of the program cost status is of some concern. Although total expenditures and progress are close to schedule, efforts for design of the facility exceeded budget by approximately one man-month. Little contingency now exists in the program for unanticipated problems.

Disclaimer Notice

This informal document contains information of a preliminary nature and was prepared primarily for interim use in light water reactor programs in the U.S. Thus, it is subject to revision or correction, does not constitute a final report, and should not be cited as a reference in publication.

Sincerely,

Richard S. Denning

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Research Leader
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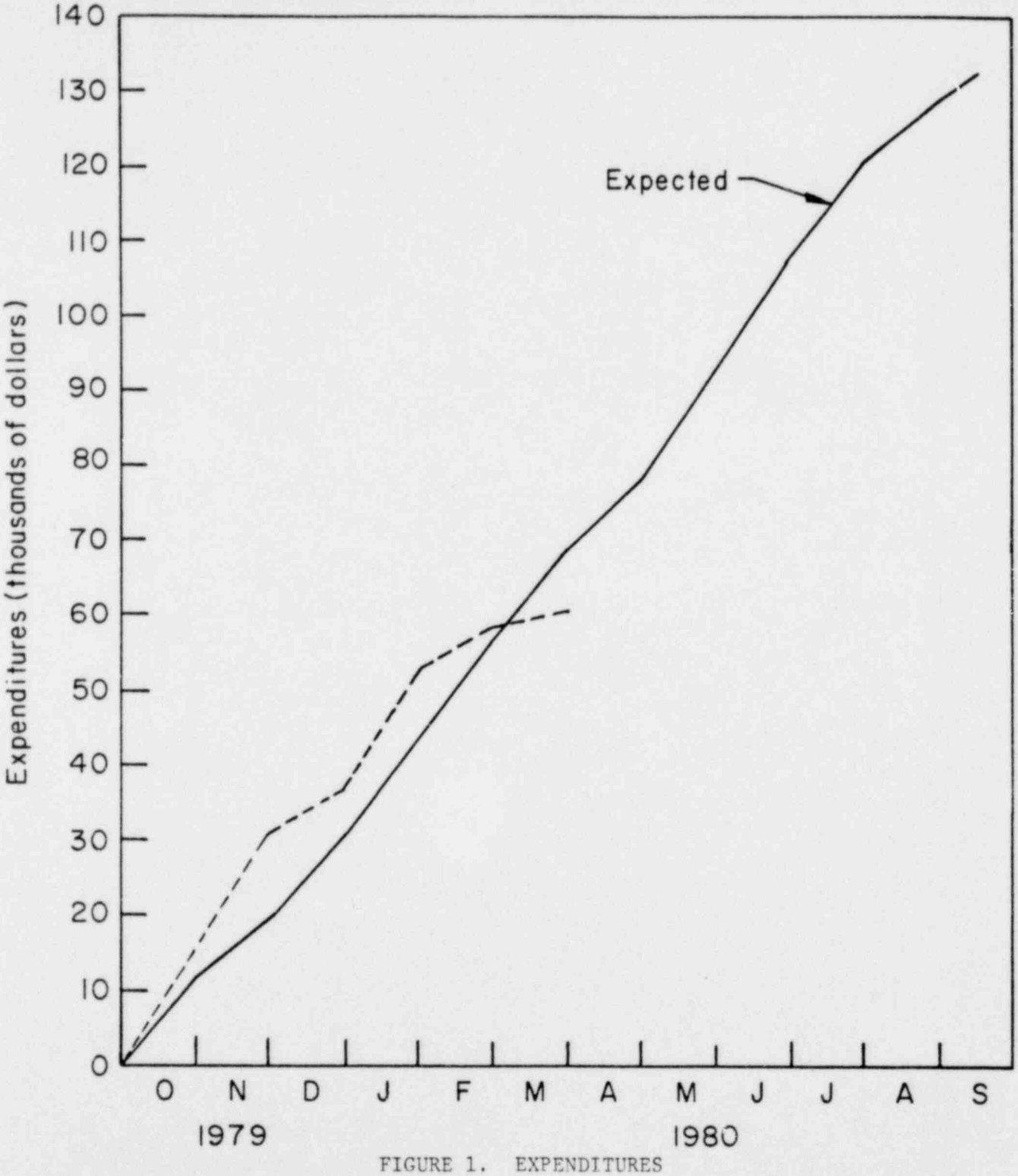

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Steam Generator Tube Rupture Iodine Transport Mechanisms

4. AUTHORS (If more than three, name first author followed by "and others.")

R. S. Denning

5. ORGANIZATIONAL UNIT (If contract, give organizational unit of author to whom inquiries may be addressed.)

OFFICE/DIVISION	BRANCH/UNIT	TELEPHONE NO.
Battelle-Columbus Laboratories	Nuclear and Flow Systems Section	FTS-976-7510

6. REPORT DATE(S)	BASIS FOR EACH DATE (e.g. date manuscript submitted; date manuscript published.)
April 14, 1980	Date Mailed

7. CONTRACT NUMBER	8. NAME OF NRC PROGRAM SPONSOR FOR CONTRACT	TELEPHONE NO.
NRC-04-293-12	R. Sherry	427-4266

9. TYPE OF DOCUMENT ("X" one)

- ☐ a. REGULATORY REPORT (e.g. Environmental Impact Statement, Safety Evaluation Report, etc.)
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	b. ORGANIZATIONAL UNIT: Nuclear and Flow Systems Section
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