AUG 8 1979

INTERIM REPORT

Accession No. _____
Contractor's Report No. _____

Contract Program or Project Title: Experimental Evaluation of Ventilation System Components During Large Pressure Pulses

Subject of this Document: Progress reported for May 1979

Type of Document: Monthly progress report

Author(s): W. S. Gregory

Date of Document: 7/25/79

Responsible NRC Individual and NRC Office or Division: Donald E. Solberg, Systems Performance Branch, SAFER:RES

This document was prepared primarily for preliminary or internal use. It has not received full review and approval. Since there may be substantive changes, this document should not be considered final.

Prepared By
Los Alamos Scientific Laboratory
P.O. Box 1663
Los Alamos, New Mexico 87545

DISTRIBUTION:
S. Levine, RES
C. Beck, RES
J. E. Ayer, NMSS
A. T. Clark, NMSS
M. L. Au, NMSS
P. Loysen, NMSS
G. Kligfield, NMSS
L. Rouse, NMSS
M. Weinstein, SD

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

NRC FIN No. A7028

NRC Research and Technical Assistance Report

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University of California
LOS ALAMOS SCIENTIFIC LABORATORY
Post Office Box 1663 Los Alamos, New Mexico 87545

In reply refer to: WX-8-3025
Mail stop: 928

July 25, 1979

Mr. Donald E. Solberg
Systems Performance Branch
Division of Safeguards
Fuel Cycle and Environmental Research
US Nuclear Regulatory Commission
Washington, DC 20555

Dear Don:

SUBJECT: R-295 MONTHLY PROGRESS LETTER FOR MAY 1979

NMSU Work - The large-scale aerosol loader has been used to perform preliminary filter loading tests. Only two aerosol loading trays can be used because of insufficient compressor capacity. We are buying a larger compressor so that four trays can be used. We have obtained several aerosol concentration measurements upstream of the test filter. We plan to use a scanning electron microscope (SEM) to make an aerosol count to determine the generation rate and the degree of agglomeration.

The laser particle counter is being used to count particles with the small-scale, steady-state loading apparatus. We are examining the count response as a function of velocity variation (transient conditions) and trigger levels on the Macrodyne signal processor. Isokinetic samples from these tests will be brought to LASL for examination using the SEM.

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NFS Analysis - The SOLA-ICE computer code has been used to generate velocity distributions within the general process cell and process mechanical cells for the NFS plant. These results have been sent to personnel at Oak Ridge for their use in predicting material release.

Sincerely,

W. S. Gregory

WSG:nh

Cys: W. G. Davey, Q-DO, MS 561
A. D. McGuire, SPO, MS 120
M. L. Brooks/L. W. Hantel, WX-DO, MS 686
W. A. Bradley, WX-8, MS 928
H. A. Lindberg, WX-8, MS 928
ISD-5, MS 150
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