



Department of Energy

Savannah River Operations Office

P.O. Box A

Aiken, South Carolina 29802

WM DOCKET CONTROL CENTER

APR 3 1987

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Mr. Robert E. Browning, Director
Division of Waste Management
Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Browning:

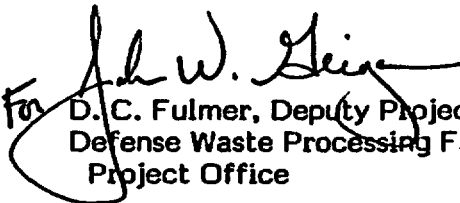
DEFENSE WASTE PROCESSING FACILITY (DWPF) TECHNOLOGY EXCHANGE;
DECEMBER 9-10, 1986

As you know, the first technology exchange on DWPF with the NRC staff was held in Washington, D. C. on December 9-10, 1986. The purpose of the meeting was to provide an overview of the Department of Energy, Savannah River Operations Office (SR) waste management process, a description of the DWPF project, and to discuss the glass performance testing.

As requested at the subject meeting, a bibliography of the SR reports related to glass technology has been prepared and is enclosed for your use. Additionally, several slides which did not reproduce clearly in the reports presented at the technology exchange are also forwarded. This information has been distributed to the appropriate States and Tribes by the Office of Civilian Radioactive Waste Management.

Any questions you or your staff may have may be directed to me or Ken Chacey, FTS 239-1372.

Sincerely,

For 
D.C. Fulmer, Deputy Project Manager
Defense Waste Processing Facility
Project Office

PDT:KAC:cas

Enclosures (2)
Bibliography
Slides

cc w/o encl:
M. W. Frei, RW-23, HQ

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PDR WASTE
WM-1

PDR

WM Record File
109.7

WM Project 1
Docket No. _____
PDR
LPDR _____

Distribution:
REB MJB Linchan
JOE JTG Justus
(Return to WM, 623-SS) Tanburn Sac

GLASS DEVELOPMENT

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3. M. J. Plodinec, "Vitrification Chemistry and Nuclear Waste," **J. Non-Cryst. Solids**, **84**, 206-14 (1986).

GLASS PERFORMANCE

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3. G. G. Wicks, J. A. Stone, G. T. Chandler and S. Williams, **Long Term Behavior of Simulated Savannah River Plant Waste Glass**, USDOE Report DP-1728, E. I. DuPont de Nemours, Inc., Savannah River Laboratory, Aiken SC 29808 (1986).

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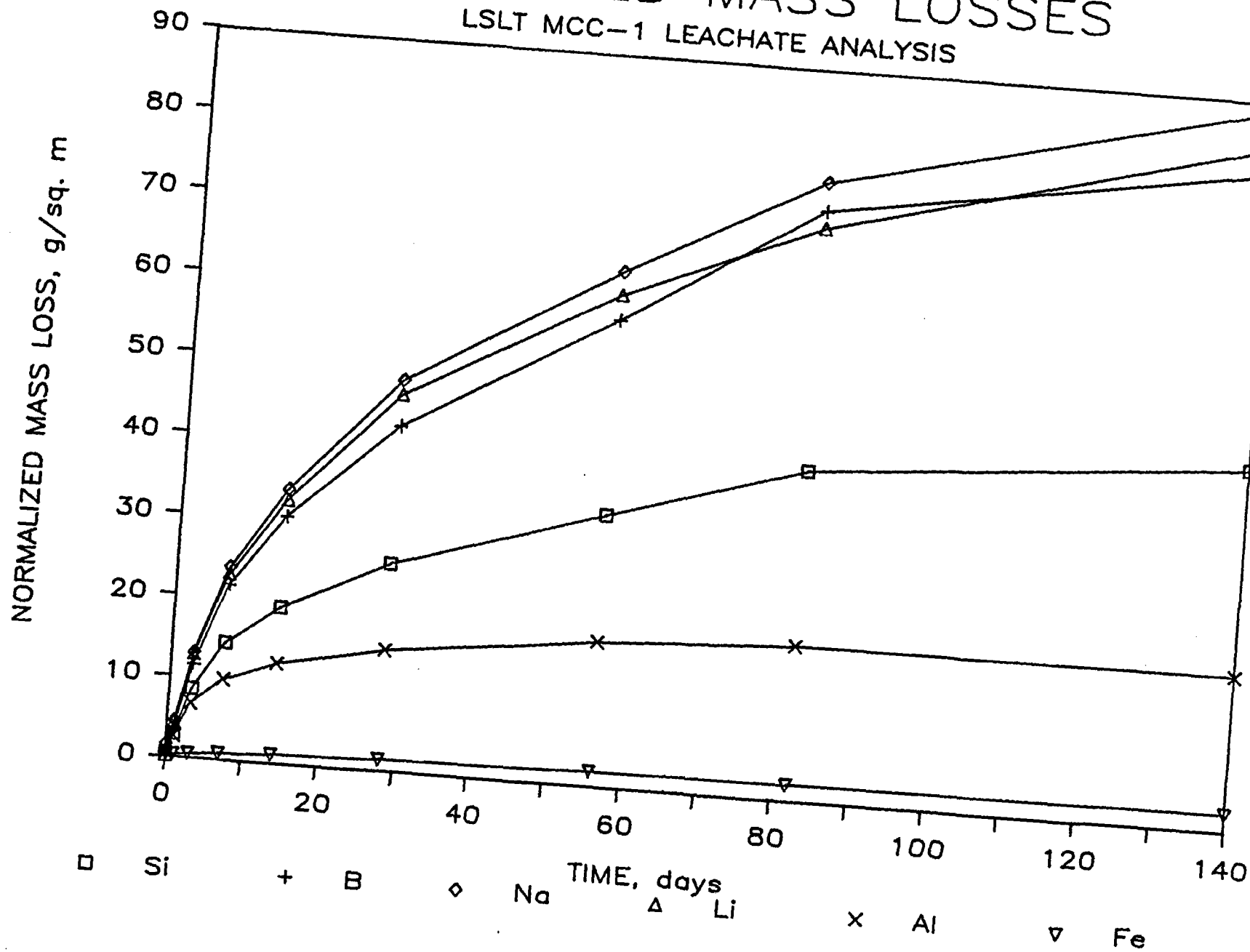
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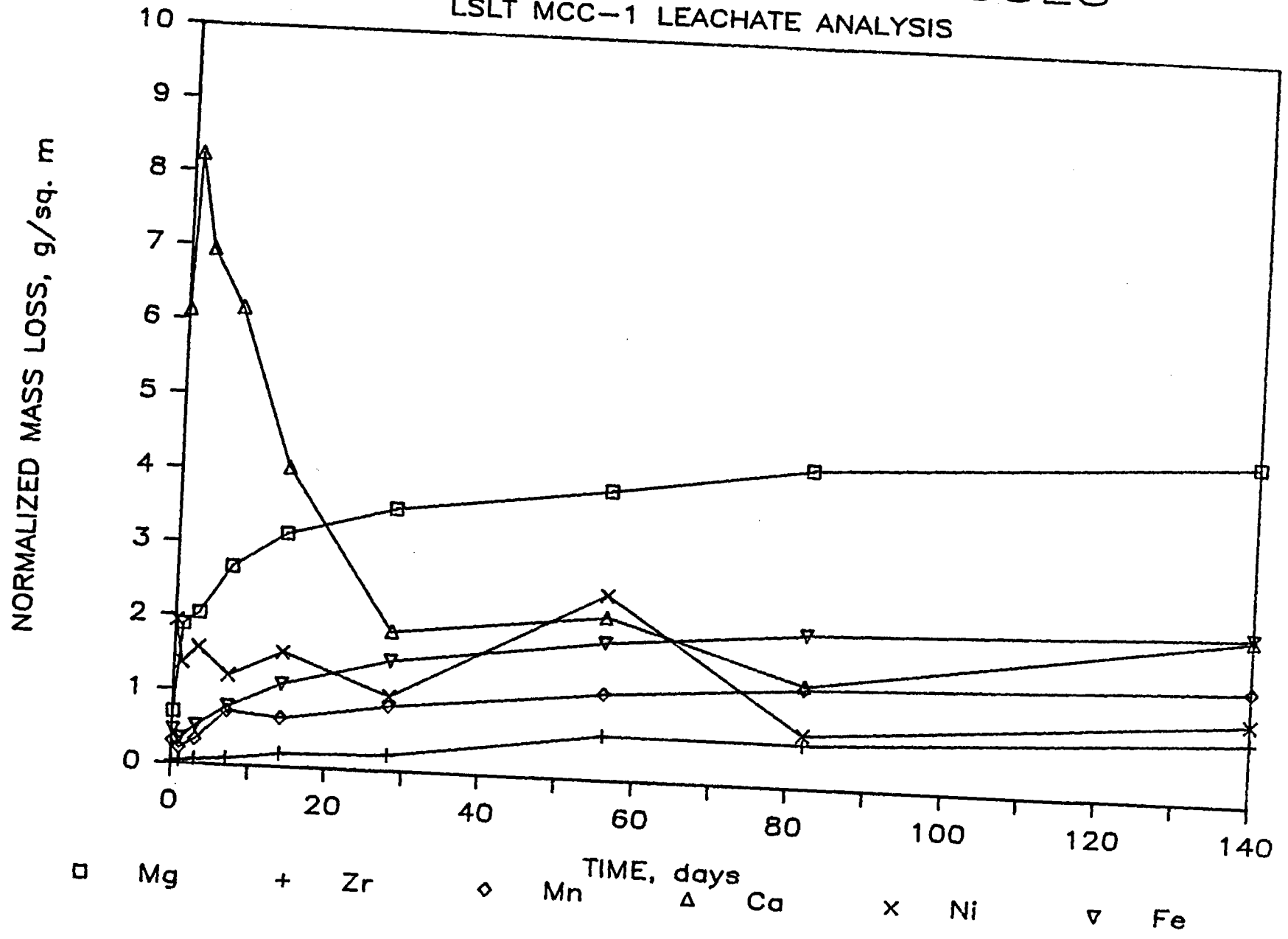
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LSLT MCC-1 LEACHATE ANALYSIS



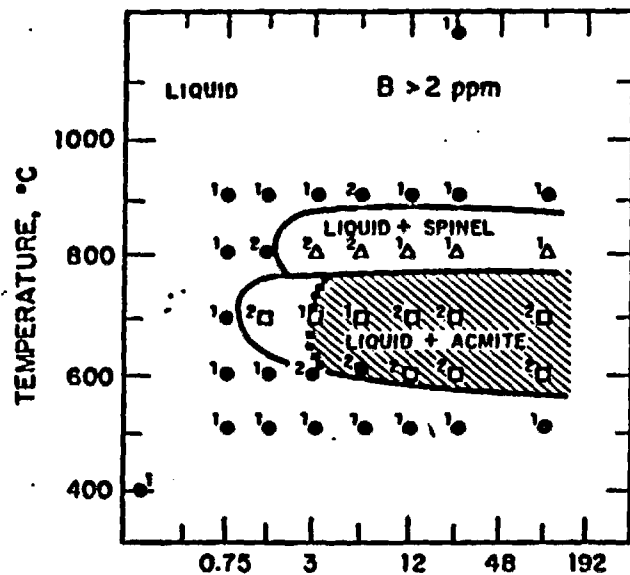
NORMALIZED MASS LOSSES

LSLT MCC-1 LEACHATE ANALYSIS

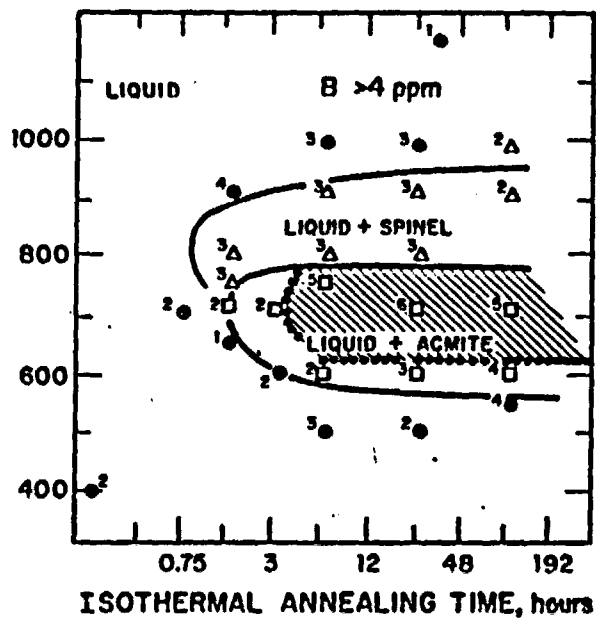


SRL 165 WASTE GLASSES

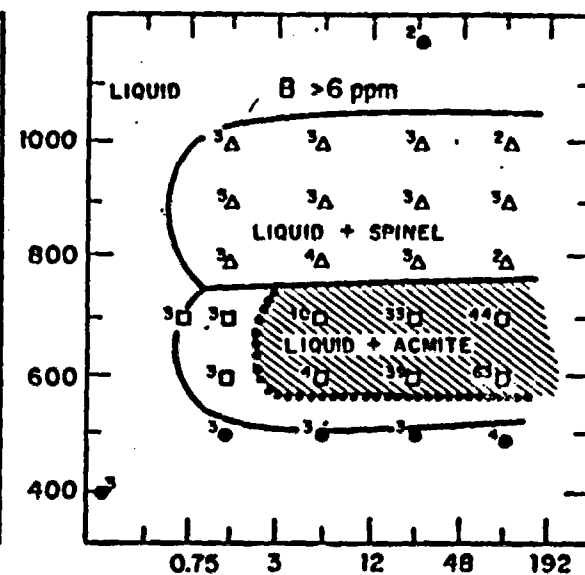
**HIGH Al WASTE
COMPOSITION**



**COMPOSITE WASTE
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**HIGH Fe WASTE
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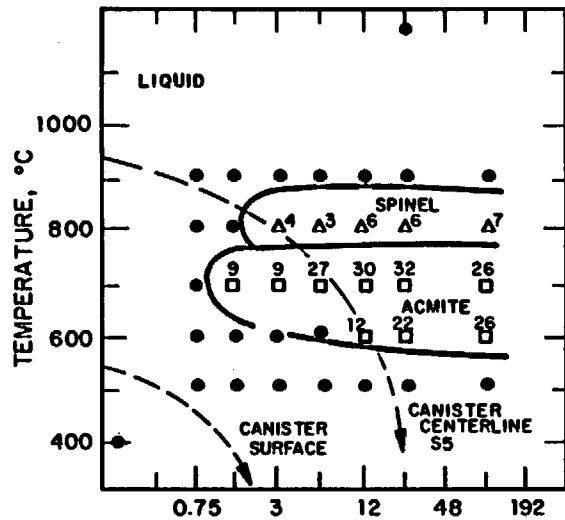


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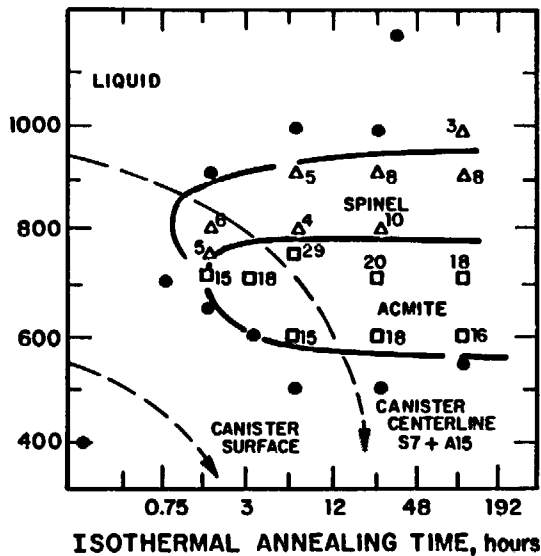
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SRL 165 WASTE GLASSES

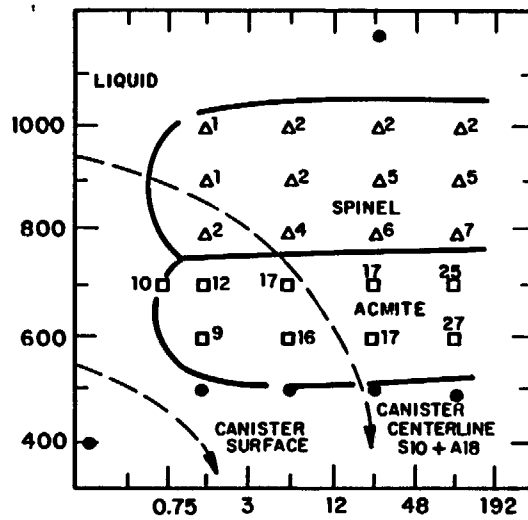
**HIGH Al WASTE
COMPOSITION**



**COMPOSITE WASTE
COMPOSITION**



**HIGH Fe WASTE
COMPOSITION**



KEY VOLUME % CRYSTALLINE PHASE
 ● NO CRYSTALS Δ SPINEL (Fe,Ni,Mn)Fe₂O₄ □ ACMITE NaFeSi₂O₆

Manda latest revised copy 6/25/86