

SUMMARY OF THE U.S. NUCLEAR REGULATORY COMMISSION AND
THE U.S. DEPARTMENT OF ENERGY SITE VISIT AT
ARGONNE NATIONAL LABORATORY

October 27-28, 1993 Argonne, IL

On October 27-28, 1993, representatives from the Nuclear Regulatory Commission, U.S. Department of Energy (DOE), the State of Nevada, and others participated in a site visit at Argonne National Laboratory (ANL). The purpose of the site visit was to focus on DOE's glass and spent fuel waste form research programs, including the primary parameters affecting waste glass and spent fuel performance. Attachment 1 is a list of attendees at the ANL site visit. Attachment 2 is an agenda for participant activities during the two day lab tour and briefings.

During the first day, scientists from ANL, DOE, and NRC gave overview presentations on glass and spent fuel testing, a forthcoming DOE compendium of glass characteristics, and waste-form performance, respectively. At the conclusion of the briefings, all participants were taken on an extensive lab tour of ANL's waste form testing facilities. Briefings and poster board presentations were given by ANL scientists on the following topics: metal corrosion testing; effects of glass SA/V and sample preparation; long-term static and drip tests of radioactive glass; glass natural analogues; and sample preparation and colloid formation.

During the second day, the lab tour continued with briefings and poster board presentations given on the following topics: glass modeling; drip tests on UO_2 and spent fuel; and effects of radiation. A general wrap-up and discussion period was held at the end of the lab tour. All attendees were encouraged to participate in the on-going discussions throughout the site visit.

Robert D. Carlson 11/4/93

Robert D. Carlson, Project Manager
Repository Licensing and Quality
Assurance Directorate
Division of High-Level Waste
Management
Office of Nuclear Material Safety
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U.S. Nuclear Regulatory Commission

Corinne J. Macaluso, 11/3/93

Corinne Macaluso
Regulatory Integration Branch
Office of Civilian Radioactive
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U.S. Department of Energy

**ATTENDEE LIST FOR NRC SITE VISIT
OCTOBER 27-28, 1993
ARGONNE NATIONAL LABORATORY
Bldg. 205, Y-Wing Auditorium
Technical Contact for Meeting: J. K. Bates, CMT, 205**

<u>NAME</u>	<u>AFFILIATION</u>	<u>CITIZEN</u>
Ahn, Tae	U.S. NRC	U.S.
Allison, Jeff	U.S. DOE/EM-34	U.S.
Bindokas, Tony	DOE-CH	U.S.
Bourcier, William	LLNL	U.S.
Carlson, Robert	U.S. NRC	U.S.
Charles, Christopher	Weston	
Colten-Bradley, Virginia	U.S. NRC	U.S.
Crawford, Sid	SAIC	U.S.
Hennessey, Jack	U.S DOE/HQ	U.S.
Jakubic, Robert	BDM Federal	U.S.
Krishna, Paul	TRW	U.S.
Macaluso, Corinne	U.S. DOE/RW - 331	U.S.
Manaktala, Hersh	Southwest Res. Inst.	U.S.
May, Joseph	WVDP	U.S.
Morrey, Eugene	PNL	U.S.
Nair, Prasad	Southwest Res. Inst.	U.S.
Pearson, William	DOE-SR	U.S.
Randklev, Edward	WHC	U.S.
Roy, Ajit	B&W Fuel Co.	U.S.
Russomanno, Charles	U.S. DOE/RW-22	U.S.
Shettel, Don	Geosci. Mgmt. Inst.	U.S.
Sproull, Jim	WSRC	U.S.
Stout, Ray	LLNL	U.S.
Strachan, Denis	U.S. DOE/EM-36	U.S.
Weller, Rick	U.S. NRC	U.S.
Bates, John	ANL	ANL
Buck, Edgar	ANL	ANL
Cunnane, Jim	ANL	ANL
Dietz, Nancy	ANL	ANL
Ebert, Bill	ANL	ANL
Feng, Xiangdong		ANL
Finn, Patricia		ANL
Johnson, Terry		ANL
Mazer, Jim		ANL
Wronkiewicz, Dave		ANL

AGENDA

NRC SITE VISIT, HIGH-LEVEL WASTE PROGRAMS

October 27-28, 1993
 Argonne National Laboratory (ANL)
 Building 205, Y-Wing Auditorium

OCTOBER 27TH

<u>Event</u>	<u>Time</u>	<u>Person</u>
Check-In: Visitors Reception Center	8:00 a.m.	All
Overview of ANL Glass and Spent Fuel Testing	8:30 a.m.	J. Bates (ANL)
Overview of Compendium of Glass Characteristics	9:00 a.m.	J. Allison (DOE-HQ) J. Cunnane (ANL)
BREAK (Convene in Y-Wing Auditorium)	9:45 a.m.	All
NRC Overview in Waste-Form Performance	10:00 a.m.	T. Ahn (NRC)
Safety Training	11:00 a.m.	G. Teats (ANL)
Lab Tour, Metal Corrosion (Bldg. 212)	11:30 a.m.	D. Diercks (ANL)
LUNCH (Cafeteria, Dining Room A)	12:00 p.m.	All
Lab Tour, Discussion/Demonstrations (Reconvene in Y-Wing Auditorium for discussions, see attachment)	1:00 p.m.	All
BREAK (Convene in Y-Wing Auditorium)	3:00 p.m.	All
Lab Tour, Discussion/Demonstrations (Cont'd.)	3:15 p.m.	All
Adjourn (Y-Wing Auditorium)	5:00 p.m.	All
Dinner - Ripples (Cass Ave North)	6:30 p.m.	Please sign up

Wednesday, October 27:

Morning

D. Diercks and J. Y. Park - Metal Corrosion Testing, Bldg. 212

Afternoon

W. Ebert and N. Dietz - Effects of SA/V and Sample Preparation, H-125

X. Feng - Long-Term Static Tests of Radioactive Glass, K-104

J. Bates - Long-Term Drip Tests of Radioactive Glass, K-104
(share poster with Feng)

J. Mazer - Glass Natural Analogues, K-104

E. Buck - Sample Preparation and Colloids, F-125

Thursday, October 28:

Morning

W. Bourcier - Glass Modeling, K-104

D. Wronkiewicz - Drip Tests on UO₂, K-104

P. Finn - Drip Tests on Spent Fuel, K-104

D. Wronkiewicz and W. Ebert - Effects of Radiation, H-125

OCTOBER 28TH

<u>Event</u>	<u>Time</u>	<u>Person</u>
Check-In: Bldg. 205 Lobby (Check-in at VRC not required)	8:15 a.m.	All
Lab Tour, Discussion/Demonstrations (Convene in Y-Wing Auditorium)	8:30 a.m.	All
BREAK (Convene in Y-Wing Auditorium)	10:00 a.m.	All
Lab Tour, Discussion/Demonstrations (Cont'd.)	10:15 a.m.	All
General Questions/Discussion and Wrap-Up (Y-Wing Auditorium)	11:00 a.m.	All
ADJOURN	12:00 p.m.	All