

OFFICE MEMORANDUM

TO : La Mar Johnson, Group Leader H-8

DATE: August 13, 1973

FROM : Wayne C. Hanson

SUBJECT : PLUTONIUM WASTE DISPOSAL/RISK ANALYSIS MEETING
ON 10 AUGUST 1973

SYMBOL : H-8-164

This meeting followed the 6 August tour of radioactive waste disposal areas to understand past practices at LASL, view present practices, and provide a background for conceptualizing risk analyses; and a meeting on 7 August of R. Lohrding and R. Beckman (C-5) and me to more rigorously define areas of information needed for risk analysis.

Attendees at this meeting were as follows:

From C-5: R. Lohrding and R. Beckman
From H-8: J. Mohrbacher, K. Pashman, M. A. Rogers,
J. W. Enders (Solid Waste Management);
K. Schiager, W. Purtymun (Environmental);
and W. Hanson (Ecology).

The purpose of the meeting was to discuss two major decisions of the 7 August meeting: (1) Initially constrain the risk analysis to G waste disposal area at LASL, which holds promise of providing the best records and handling procedures; and (2) develop categories of needed information and assign responsibilities for same.

The group concurred on the first decision and developed the following assignments of information categories:

<u>Risk Analysis of LASL Waste Disposal Area G</u>	<u>Responsibility</u>
<u>Information Category</u>	
I. Radioactive Material Release Mechanisms	
A. Fire	
1. Past records	Enders
2. Spontaneous	
a. In barrels	CMB-1, CMB-11,
b. Outside barrels (corrosion, leaking)	Pashman, Warren

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3. Focused sun rays	C-5
4. Lightning	C-5
5. Meteorites	C-5
6. Aircraft	C-5
7. Operational accidents	(from Mohrbacher Dean Keller ENG-1 and H-3)
a. Equipment backing into trench	
b. Placement damage	
c. Loss of control of heavy equipment	
8. Intentional	C-5
a. Arson	C-5
b. Sabotage	C-5
B. Natural Disasters (other than fire)	
1. Tornado	Barr
2. Earthquake	Purtymun, Rogers
3. Excessive rain or floods	Barr
4. Dust Devils	Barr
5. Wind storms	Barr
C. Through Soil (including resuspension)	Purtymun, Rogers
D. Through Ground water	Purtymun, Rogers
E. Criticality	C-5 (from Dave Smith)
II. Radioactive Release Characteristics for each of above Mechanisms.	
A. Type of Radioactivity Release	Pashman, Warren
B. Amount of each Type of Release	Herceg, Enders
C. Particle Size Distribution of Release (if to Atmosphere)	Schiager
D. Solubility of Particles	Pashman
III. Atmospheric Release Transport Information	
A. Local Meteorology	Barr
B. Transport Equations	Barr, Schiager
C. Los Alamos County Population Density and Distribution	C-5
D. Potential Exposed Area Population Density and Distribution	C-5
IV. Ecological Pathways to Man	Hanson
V. Dose Commitment to Man	Schiager

Each person or group is to contact Lohrding/Beckman individually with information, problems of applicability, or other questions; and the next group meeting will be held during the first week of September. It was apparent that much of the information needed for this Evaluation effort will also apply to the Criteria performance, and will avoid duplication.

WCH/jh