

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 st Review Date: 3-20-97	Declassification (Circle Numbers):
Authority: AEC R. W. Lays	1. Classification Retained
Name: [Signature]	2. Classification Changed to
2 nd Review Date: 4/2/97	3. Complete No. of Classified Information
Authority: ADD	4. Complete With
Name: [Signature]	5. Complete UC/IT?
	6. Comments: [Signature]

August 14, 1962

TO: DISTRIBUTION

The rapid growth of nuclear weaponry in the free world and in the USSR and the increasing dependency on these weapons for our future security is demanding a much deeper understanding of the true worth of such weapon systems in the face of enemy countermeasures. The subject of weapon vulnerability is currently receiving the attention of the highest offices in the government and is certain to be one of our major areas of activity in the foreseeable future.

The recent Small Boy event of Operation Mougat was the most elaborate vulnerability experiment performed to date and involved difficult coordination of many participating groups on a time scale too tight for optimum effectiveness. Experience gained on this experiment suggests the need for a Corporation-wide evaluation of our total interests in future vulnerability experiments which we would propose for conduct in conjunction with future full scale shots. The AEC is now in the process of collecting future full scale program advice from its laboratories and it is imperative that we get our own interests unified before we can integrate our needs effectively with the other AEC labs and other agencies outside the AEC which have complementary interests.

In addition to atmospheric shots near the surface, such as Small Boy, we must also consider what experimentation we may do on underground shots and on high altitude shots. Further, we must attempt to understand the reaction of our product in as basic a manner as possible in order that we may extrapolate from specific tests to the many varied and general situations that will exist in the assessment of warhead vulnerability. We cannot possibly hope to test every component and system under the full range of possible situations to which it will be exposed. The generalization of test results requires that we understand how to calculate and measure the damage mechanisms to which our components and systems will be exposed.

In order that we may have a true picture in hand of the general Sandia Corporation interests, I have asked T. B. Cook to call a meeting for discussion of these subjects. I would appreciate your attendance at this meeting, to be held at 0900, September 4, 1962, in Room 201, Building 806. The subject of the conference will be "Sandia Corporation Vulnerability Interests." The purpose of the meeting will be:

1. To delineate major areas of technical uncertainty relating to the vulnerability of our product.
2. To outline appropriate approaches toward resolution of these uncertainties.

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
Authority: R.B. Craner	RECORD ID: 975N 1084
Emilda Selph 4/7/97	DATED: 3/2/97
Carmela Salinas 4/9/97	

RESTRICTED DATA
 This document contains information that is...
 the Atomic Energy Act of 1954...
 the Department of Energy...
 authorized personnel only.

3. To generate a tabulation of full scale nuclear tests (i.e. yield, location, altitude, time, major objectives, instrumentation, etc.) required by Sandia Corporation in order to fulfill our responsibilities to AEC in the design of warhead systems.

In connection with Item 3, representatives of the organizations concerned should be prepared to explain and justify their proposals and to show that:

- A. The result is urgently needed for Sandia weapons programs.
- B. The results cannot be obtained reasonably by other means.
- C. The experiment involves release of the least amount of fission product activity into the atmosphere.
- D. The results can be obtained with reasonable likelihood under the situation proposed.

Each invited organization should come prepared to make a 15 minute presentation directed specifically at filling the three purposes of the meeting. Each organization should bring a 1 to 2 page summary statement or tabulation covering the three items listed as the purpose of the meeting. These statements should avoid generalities and should be as specific and factual as possible. This material should include a brief description of Sandia activities which are underway or planned relative to Item 3 of the above listings, and should include the level of effort in manpower and dollars as well as the time scale involved between significant guideposts in the program.

In addition to the above preparation relating to Sandia Corporation interests, it would be appreciated if each attendee would be prepared to give a brief verbal description of activities by other groups (both DOD and AEC) with which they are familiar in the general area of weapons system vulnerability study plans involving nuclear tests. This subject will be scheduled at the end of the meeting as an information item after the principal business has been accomplished.

This meeting will provide the data for definition of Sandia Corporation requirements for full scale vulnerability tests. These requirements are essential in helping Sandia Corporation focus its effort into most fruitful areas and in particular will aid in determining how we should work with other laboratories and agencies interested in weapons systems and warhead vulnerability.

R. W. HENDERSON - 100
RWH

DISTRIBUTION: See list of invitees.

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S. P. Schwartz, 1
E. H. Draper, 1000
G. C. Dacey, 5000
G. A. Fowler, 7000
B. S. Biggs, 8000
R. W. Henderson, 100

LIST OF INVITEES

<u>Organization</u>	<u>Name</u>
1352	L. Smith <i>attn C. K. ...</i>
1400	J. H. Findley - <i>attn T. Church</i>
5300	J. W. Easley, Attn: A. W. Snyder, 5320 ✓
5400	IF → T. B. Cook, Attn: B. F. Murphey, 5410
7160	H. H. Patterson, Attn: C. S. Selvage, 7164
7180	S. A. Moore, Attn: R. T. Othmer, 7183-3 ✓
7230	J. H. Scott, Attn: M. L. Kramm, 7233
7250	J. C. Eckhart, Attn: A. D. Thornbrough, 7251-1
8100	W. J. Howard, Attn: F. Cutierrez, 8140 and H. C. Walker, 8133 J. M. W. Senard ✓
9100	D. R. Cotter, Attn: C. Winter, 9130
1100	C. F. ...