

CONFIDENTIAL INFORMATION

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Test Director, Area 3, C. Co. Clerk, Deputy Test Director, CP, WTC

5/26/53

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R. L. Corbridge, Director, CETS  
Rm 106, Bldg 101, WTC

CETS PARTICIPATION IN CLIMAX

STUDY SERIALS

This document contains restricted data as defined in the [redacted] or the [redacted] to an authorized person in your manner [redacted]

In accordance with our several communications relative to subject participation, there follows a summary of CETS experiments proposed for inclusion in that file:

- Project 23.3 Long-term studies on Animals Exposed Primarily to Neutron Irradiation
- Project 23.15 Effects of Overpressure, Displacement and Motion on Animals
- Project 23.17 Destructive Test Biological Experiments to be Conducted in Conjunction with AEC Shelter Testing
- Project 24.1 AEC Shelter Evaluation
- Project 24.2 Physical Measurements of Gamma and Neutron Radiation in Shelters
- Project 29.1 Comparison and Evaluation of Destructive Methods Applicable to Gamma Radiation
- Project 29.2 Measurement of Post Bombings by Means of Permanent Electrical Resistance Changes

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
SINGLE REVIEW AUTHORIZED BY: AA S. WISGARD 11/22/94	DETERMINATION (CIRCLE NUMBER(S)) 1. CLASSIFICATION RETAINED 2. CLASSIFICATION CHANGED TO: 3. CONTAINS NO DOE CLASSIFIED INFO 4. COORDINATE WITH: 5. CLASSIFICATION CANCELLED 6. CLASSIFIED INFO BRACKETED 7. OTHER (SPECIFY):
REVIEWER (ADD): NAME: ML KOLMAN DATE: 11/22/94	

As you know, the AEC shelter, 600 Feet from Target 7.3, was modeled to accommodate biological experiments in that file. It offers for CLIMAX excellent potentialities for obtaining additional data to back-up and supplement our shelter investigations in Area 3. Therefore, it is proposed to install a snuffing device, 8 Feet inside the entrance ramp of the 133-Foot, 7 Foot 6 Inch diameter, shelter. This will give information on blast loadings on an 8-foot section of concrete shelter pipe with one open end and an concrete end corrugated pipe used as a shelter with closed ends.

It is proposed to (1) place various types of physical destructors outside and inside the shelter to measure neutron and gamma, (2) to place standard thermometers to give us data on temperatures, (3) to place indicator-type gauges and the IRT, mechanical pressure-volume gauges, both inside and outside, and (4) to take documentary photographs, as well as motion pictures. Lookout Mountain Laboratory will undertake the latter for Project 23.15.

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DOE ARCHIVES

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J. C. Clark  
Dep. Test Dir.

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May 16, 1953

In addition to the physical dosimetry, about 5 dogs will be used in the closed part of the shelter, and about 5 in the open end. It is felt that the use of the animals offers an opportunity to get data not obtainable under the pressure loadings in Shot #1 or that predicted for Shot #6. There is a possibility that dogs will also be used in the NRE. cubicles and in investigations of the biological effectiveness of ionizing radiation. Due to the anticipated high levels of neutron and gamma, mice will not be used in the shelter.

Based on discussions with Dr. Dell and Col. Stewart, it is my understanding that the blast line and the thermal line in Area 7 will be activated for this shot.

It would be most helpful to us to have your predictions of thermal, gamma, and neutron levels at ground surface above the shelter (Station 9.1b). In discussions with your staff, I have received preliminary data on the probable blast loadings, but would be glad to have your predictions on free air and ground level overpressures in the vicinity of the shelter.

cc: Dr. J. C. Bugher ✓  
Program 23 (Attn: Dr. E. P. Cronkite)  
Program 29 (Attn: Mr. S. C. Sigoloff)

WASHINGTON D.C.  
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