

~~RESTRICTED INFORMATION~~

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Test Director, Attn: J. C. Clark, Deputy Test Director, OP, WTC

5/16/53

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R. L. Corbie, Director, CERG  
Rm 106, Bldg 101, WTC

CERG PARTICIPATION IN CLIMAX

SYMBOL: DEM:RLC

This document contains restricted data as defined in the [redacted] or the [redacted] in any manner to an unauthorized person is prohibited.

In accordance with our several conversations relative to subject participation, there follows a summary of CERG experiments proposed for inclusion in Shot #11:

- Project 23.3 Long-term Studies on Animals Exposed Primarily to Neutron Irradiation
- Project 23.15 Effects of Overpressures, Displacement and Missiles on Animals
- Project 23.17 Dosimetry for 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 Dosimetry Methods Applicable to Gamma Radiation
- Project 29.2 Measurement of Fast Neutrons by Means of Permanent Electrical Resistance Changes

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW

SINGLE REVIEW AUTHORIZED BY: [redacted]

REVIEWER (ADD): ML KOLBY

NAME: ML KOLBY

DATE: 11/22/94

DETERMINATION (CIRCLE NUMBER(S))

1. CLASSIFICATION RETAINED

2. CLASSIFICATION CHANGED TO:

3. CONTAINS NO DOE CLASSIFIED INFO

COORDINATE WITH:

4. CLASSIFICATION CANCELLED

5. CLASSIFIED INFO BRACKETED

6. CLASSIFIED INFO BRACKETED

7. OTHER (SPECIFY):

OPENNET ENTRY

Authorized for Public Release

By: [redacted] Date: 8/4/95

Entered in OpenNet

By: YES

Date: NVD 7.20.340

Not Authorized for Public Release

By: [redacted] Date: [redacted]

As you know, the AEC shelter, 800 feet from Target 7.5, was remodeled to accommodate biological experiments in Shot #11. 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 sandbag closure, 8 feet inside the concrete ramp of the 43-foot, 7 foot 6 inch diameter, shelter. This will give information on blast loadings on an 8-foot section of concrete culvert pipe with one open end and on concrete and corrugated pipe used as a shelter with closed ends.

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

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MILITARY RESEARCH & APPL. 196

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J. C. Clark  
Dep. Test Dir.

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 #8. There is a possibility that dogs will also be used in the NRDE 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. Bell and Col. Willard, 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  
COMMISSION  
FOR ATOMIC ENERGY

MAY 20 1953

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