

2651

10/29/85

NM. 17

MEMORANDUM

NM. 17-1

TO: FILE

FROM: S. Jones

SUBJECT: Elimination report - Trinity Test Site

SITE NAME: Trinity Test Site

ALTERNATE NAME:

CITY: White Sands missile range STATE: Nm

OWNER(S)

Past: U.S. Army Current:
Owner contacted [ ] yes [ ] no; if yes, date contacted

TYPE OF OPERATION

- [ ] Research & Development [ ] Facility Type
[ ] Production scale testing [ ] Manufacturing
[ ] Pilot Scale [ ] University
[ ] Bench Scale Process [ ] Research Organization
[ ] Theoretical Studies [ ] Government Sponsored Facility
[ ] Sample & Analysis [x] Other detection of first atomic bomb
[ ] Production
[ ] Disposal/Storage

TYPE OF CONTRACT

- [ ] Prime [ ] Other information (i.e., cost + fixed fee, unit price, time & material, etc)
[ ] Subcontractor
[ ] Purchase Order

Contract/Purchase Order #

CONTRACTING PERIOD: 7/16/45

OWNERSHIP:

Table with 7 columns: AEC/MED OWNED, AEC/MED LEASED, GOV'T OWNED, GOV'T LEASED, CONTRACTOR OWNED, CONTRACTOR LEASED. Rows include LANDS, BUILDINGS, EQUIPMENT, ORE OR RAW MATL, FINAL PRODUCT, WASTE & RESIDUE.

The site is located inside the boundaries of the White Sands Missile Range & is controlled by the Army

AEC/MED INVOLVEMENT AT SITE

Control

- AEC/MED managed operations
- AEC/MED responsible for accountability
- AEC/MED overviewed operations
- Contractor had total control
- unknown.

- Health Physics Protection
  - Little or None
  - AEC/MED responsibility
  - Contractor responsibility

MATERIALS HANDLED:

Type (on basis of records reviewed)

- No Radioactive
- Natural Radioactive from Feed Materials Production
  - Ore
  - Refined Source Material
  - Residue
- Natural Radioactive Material from Non-Nuclear Activities
- Man-Made
- Other
- Comment first atomic bomb

Quantities (on the basis of records reviewed)

- None  Production Quantities
- Small Amounts
- Comment \_\_\_\_\_

OTHER PERTINENT FACTS:

- Facility was Licensed
  - During AEC/MED-Related Operations
  - For Similar Activities
  - For Other Activities
- Comment \_\_\_\_\_

Commercial Production Involving Radioactive Material during AEC/MED Operations

Facility was Decontaminated ~~and released~~ with restrictions

Availability of Close Out Records

- None  Some  Sufficient

Radioactive Status:

|  | YES | MAYBE | PROBABLY<br>NOT | NO       |
|--|-----|-------|-----------------|----------|
| Contaminated Potential for Exposure (accessible) | --- | ---   | ---             | <u>X</u> |

QUANTITY OF RECORDS AVAILABLE:

Very Little

Some

Sufficient

PROBABILITY OF FINDING ADDITIONAL RECORDS:

Low

Possible

High

RECOMMENDATIONS:

Eliminate

Consider for Remedial Action

Collect More Data

Comment ~~The site has been released with restrictions~~

REFERENCES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Summary: The site has been declared a historic landmark. U.S. Army controls access.

DRAFT

THE ORIGINATION, USE, AND CURRENT DISPOSITION OF THE TRINITY TEST SITE  
ON WHITE SANDS MISSILE RANGE, NEAR CARRIZOZO, NEW MEXICO

The Trinity Test Site, located about 30 miles west of Carrizozo, New Mexico is the site of the detonation of the first atomic bomb on July 16, 1945. The test site is contained inside the current boundaries of the White Sands Missile Range. The White Sands Missile Range, operated by the U.S. Army and the Army Security Organizations maintain control and restrict access of the general public to the missile range.

The actual site of the detonation is located within a rectangular fenced area, approximately 200 foot on a side. This area is in turn contained inside a larger fenced area with approximately a 1600 foot radius from the point of detonation. Access gates in both the fences are normally locked to prevent unauthorized entry to the site.

Controlled visits to the Trinity Site were begun by the Army in 1960. After collection and subsequent analysis of data to determine the potential radiation exposure to public visitors. Several surveys have been conducted over the site. These surveys have generally indicated close to background levels of radiation except inside the inner fence where both elevated beta and gamma radiation levels have been encountered.

The material in the current site <sup>f</sup>file appears to have been originated or assembled as a result of a scheduled tourist visit to the Trinity Site on October 1, 1972. At that time, an individual who was part of the accompanied tour during the approximately 1 and 1 1/2<sup>hour</sup> briefing/lecture and inspection which took place inside the inner fenced area, ~~During this period, the individual~~ reportedly collected a number of pieces of the fused surface material known as "TRINITITE" which he carried with him upon leaving the facility. This individual <sup>then</sup> after returning to Albuquerque, NM reportedly became concerned about the possible radioactivity of the Trinitite samples and had them checked for radiation levels by the University of New Mexico in Albuquerque. After receiving/ <sup>the #</sup> reports on this survey, he subsequently presented testimony before the radiation protection unit of the Environmental Improvement Agency of New Mexico on October 31, 1972 concerning what he felt to be potential/hazards of the tourist visits to the Trinity Site and the collection of Trinitite samples by persons on these tours. Subsequently, on January 5, 1973, the issue of distribution of samples of Trinitite by Edmund Scientific Company and a second distributor American Science Center, Incorporated was raised as an additional hazard to public health and safety. The files contains a number of letters and newspaper clippings covering the ensuing period through August 1973 regarding the potential hazards associated with both visits to the site and the collection and possession of samples of Trinitite.

The file includes an AEC staff study in which the subject of public visits to the Trinity Site is discussed. The results of the study which were included as part of a letter response to an inquiry by a Mr. Steven Asher, attorney at law - Southwest Research and Information Center, indicated that an individual taking part in one of the 1 and 1 1/2 hour conducted tours could expect to receive up to 2 millirams total whole body gamma radiation exposure. In addition, the report noted that air concentrations in the area during cleanup operations

indicated that radioactive material if present is difficult to resuspend even with vigorous mechanical disturbance of the surface. It concluded that no radiation inhalation problems are anticipated under present conditions of visitation. With respect to collection and removal of Trinitite souvenirs, the report cited the list of rules and restrictions regarding the visit to the site which was provided to each person in the tour by the Army representatives and the Alamogordo Chamber of Commerce. The rules state "no digging is permitted with /in the area" and "visitors may not pick up objects in the area." The study goes on to say that the staff recommends that the Army take steps to strengthen visitor control and to assure that each visitor is fully informed of the maximum radiation exposure that could be received during the visit, that the inner and outer fences around the site be posted to indicate that the levels of radiation within the enclosure are above natural background levels and that more positive control be placed upon visitors to give reasonable assurance that artifacts (samples of Trinitite) are not removed from the site. The report notes that the staff does not postulate any significant radiation exposure from souvenir samples of Trinitite previously removed from the site and suggests that the "relatively small radiation exposure received by visitors to the site must be waived against the personal benefits of each person who wishes to visit this historical site." Further "as a result of these studies, we have concluded that controlled visits to this site do not constitute a significant health hazard either to an individual or the general population. Hence, we feel that those individuals who wish to visit the site under the controlled supervision of the Army should be advised of the low order radiation field and each allowed to determine the desirability of visiting the historical site."

In other correspondence contained in the file, it is indicated that the Trinitite samples possessed by Edmund Scientific and American Science Center were confiscated by the AEC and handled as low level radioactive waste by their Brookhaven National Laboratory facility. No confirming documentation of the actual confiscation is contained in the file and the details of final disposition of these samples are lacking. Further it was ~~determined~~<sup>decided</sup> that it was unnecessary to attempt notification of persons who may currently be in possession of Trinitite samples as to the nature of the samples and the potential hazards which they might entail.

The file does not contain details on the final disposition of a request made by the New Mexico Environmental Improvement Agency at its July 1973 meeting requesting information on the possible radiation hazards at the Trinity Site. Further information on the current status of public tours or visits to the site is not known and the status of suggestions made to the Army for posting and control of the site are not given in any of the documents contained in the file. (The last document is dated Aug. 10, 1973).

END