

Los Alamos Environmental Restoration Records Processing Facility

LOS ALAMOS

LOS ALAMOS NATIONAL LABORATORY

ER Record I.D.# 0005971

ENVIRONMENTAL RESTORATION
Records Processing Facility
ER Record Index Form
(Side 1 of 2)

DATE RECEIVED: 07-20-92 PROCESSOR: AW

Part I: Complete all fields; indicate if not applicable or appropriate; please write legibly.

DOCUMENT TO: Ray Reider DOCUMENT DATE: 09-28-62

ORIGINATOR NAME: W. Clarence ORGANIZATION: H-3

SYMBOL: - PAGE COUNT: 3

SUBJECT/TITLE: Inspection For Possible Explosive Contamination

of TA-20, Sandia Canyon Site, And TA-27, Gamma Site

RECORD TYPE (Circle relevant type for primary record; type of attachments should be selected on *Keywords List*):

Analytical Data
Chain-of-Custody
Computer Output
Contract
Controlled Distribution
Drawing

FAX
Figure
Form
Interview
Letter
Logbook

Memo
Microform
Notebook
Personal Notes
Photo

Plan
Procedure
Purchase Request
Receipt Acknowledgment
Report
Review

Study
Telephone Record
Transcription
Video
Work Plan
Other

RECORD CATEGORY: P

(P for Programmatic or R for Reference)

RECORD PACKAGE #: -

RECORD FILMED (Y/N): Y

RECORD LOCATION: -

(Indicate location of record if not filmed.)

Part II: Complete all fields; indicate if not applicable or appropriate; please write legibly. Use *ER Record Index Form Attachment Sheet* if needed.

ATTACHMENTS FILMED (Y/N): -

(Were attachments to this record filmed?)

LOCATION: -

(Indicate location of attachments.)

TECH AREA(S)

LIST RELEVANT TECH AREA(S)

20
27

PRS NO(S)

LIST RELEVANT PRS NO(S)

-

ADS NO(S)

LIST RELEVANT ADS NO(S)

1100
1093

STRUCTURE NO(S)/MDA

LIST RELEVANT STRUCTURE NO(S)/MDA

-



KEYWORDS: Circle relevant KEYWORDS from the list below for ER Record #: 0005971

MISCELLANEOUS (List other indexing criteria as necessary; please write legibly): Tech Area,

Sandia, composition B, signs

Abandon	.....	Controlled Distribution	Evacuation	HSWA (Hazardous and Solid Waste Amendments)
Aboveground Tank	Cadmium	Core	Evaluation	Hydrology
Absorption	Caisson	Corrective Action	Evaporator	Hygiene
Abstract	Calibration	Correspondence	Excavation	.....
Accelerator	<u>Canyon</u>	Criteria	Exclusion	Implementation
Access	Capacitor	.....	Exhaust	Implosion
Accident	Caustic	Data	Experiment	Impoundment
Accumulation	<u>CEARP (Comprehensive Environmental Assessment and Response Program)</u>	Deadline	<u>Explosive</u>	Inactive
Acid	Cement	Debris	Exposure	Incinerator
Active	<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)</u>	Decision Analysis	Extension	Industrial
Administrative	CERCLA	Decommission	Extraction	Injection Well
ADS (Activity Data Sheet)	(Comprehensive Environmental Response, Compensation, and Liability Act)	Decontamination	.....	Inorganic
Adsorption	Certification	Deficiency	Facility	<u>Inspection</u>
AEC (Atomic Energy Commission)	Cesium	Deliverables	Farm	Installation
Aerial	Chain-of-Custody	Demolition	FAX	Interim
Agenda	Chamber	Description	Fence	Interim Action
Agreement	Change Control	Detection	Field	Internal
Air	Change Order	Detonation	Figure	Interview
Alpha	Charge	Development	Filter	Inventory
Americium	Chart	Discharge	FIMAD (Facility for Information Management, Analysis, and Display)	Investigation
Analysis	Checklist	Disposal	Finding	IRM (Interim Remedial Measure)
Analytical	Chemical	Documentation	Fire	Isotope
AOC (Area of Concern)	Chromium	DOE (Department of Energy)	<u>Firing Site</u>	IWP (Installation Work Plan)
Approval	<u>Cleanup</u>	DOQ (Data Quality Objectives)	Fiscal	.....
Aquifer	Clearance	Draft	Five Year Plan	Lab Job
ARAR (Applicable, Relevant, or Appropriate Requirements)	Clothing	Drainage	Flowchart	Laboratory
Archeology	Closure	Drainline	Fluid	Lagoon
Archive	CMI/RA (Corrective Measures Implementation/Remedial Action)	Drawing	Form	Land
Area	CMS/FS (Corrective Measures Study/Ferrous Study)	Drilling	Framework	Landfill
Arsenic	Comment	Drop Tower	Free	Laundry
Asbestos	Committee	Drum	Fuel	Leach
Asphalt	Community Relations	Dry Well	.....	Lead
Assessment	Compliance	Dump	Gamma	Leak
Audit	Compressed Gas	Duplicates	Gas	Legal
.....	Computer Modeling	.....	Generation	Letter
Bacteria	Computer Output	Ecology	Generic	Limit
Barium	Concern	Effluent	Geochemistry	Lines
Baseline	Concrete	EIS (Environmental Impact Statement)	Geology	Liquid
BCP (Baseline Change Proposal)	Concurrence	Emission	Geophysics	List
Beds	Configuration	Engineering	Glass Breaker	Log
Bermed Area	Construction	Environmental	Glove Box	Logbook
Beryllium	Container	EPA (Environmental Protection Agency)	Graph	.....
Beta	Containment	Equipment	Guidance	Magazine
Biology	<u>Contaminant</u>	ERDA (Energy Research and Development Administration)	<u>Guh</u>	Management
Blank	Contract	Erosion	.....	Manhole
Boller	Control	Error	Handling	Map
Boneyard	.....	ES&H (Environment, Safety, and Health)	Hazardous	Material
Buried	.....	Estimate	Health	MDA (Material Disposal Area)
Burn	.....	.....	HE (High Explosive)	Media
Burn Site	.....	.....	History	Meeting
.....	.....	.....	Hole	.....
.....	.....	.....	Home Owner	.....

Memo	OSHA (Occupational Safety & Health Administration)	Radionuclide	Seminar	Testing
Mercury	OU (Operable Unit)	Rationale	Semivolatiles	TLD (Thermoluminescent Dosimeter)
Metal	Outfall	RCRA (Resource, Conservation, and Recovery Act)	Septic	TOC (Table of Contents)
Microform	Outline	Reactor	Sewer	Townsite
Minimization	-----	Receipt	Shaft	Toxic
Minutes	PA/RFA (Preliminary Assessment / RCRA Facility Assessment)	Acknowledgment	Shell	Tracking
MIS (Management Information System)	PCB (Polychlorinated Biphenyl)	Recommendation	Shot	Training
Mixed Waste	Permit	Reconnaissance	Silver	Transcription
MOA (Memo of Agreement)	Personal Notes	Records	Site	Transfer
Model	Personnel	Recovery	Sludge	Transformer
Modification	Personnel Qualification	Recycle	Soil	Transport
Money (Allocation, Appropriation, Budget, Cost, Funding, etc.)	Photo	Reduction	Solid	Treatment
Monitoring	Pilot Study	Reference	Solvent	Trench
Monthly Report	Pipe	Regulation	SOP (Standard Operating Procedure)	Trip Report
Mortar Impact Area	Pit	Release	SOW (Statement of Scope of Work)	Tritium
MOU (Memo of Understanding)	Plant	Remediation	Specific	TRU (Transuranic)
MSA (Major System Acquisition)	Plutonium	Removal	Spill	TSCA (Toxic Substances Control Act)
-----	Pollution	Report	Stack	Tuballoy
NEPA (National Environmental Policy Act)	Polonium	Request	Standard	Tuff
NFA (No Further Action)	Polaroid	Requirements	Statistics	-----
Nitrate	Potential	Research	Steamline	Underground
NMED (New Mexico Environmental Division)	Presentation	Resin Bed	Steel	Uranium
NMEID (New Mexico Environmental Improvement Division)	Prevention	Resolution	Storage	Urine
NOD (Notice of Deficiency)	Priority	Resource	Strontium	USGS (United States Geological Survey)
Non-explosive	Procedure	Response	Structure	UST (Underground Storage Tanks)
Notebook	Program	Restoration	Study	Utility
Notification	Programmatic	Restriction	Subcontractor	-----
NPDES (National Pollutant Discharge Elimination System)	Project	Results	Subsurface	Validation
NRC (Nuclear Regulatory Commission)	Project Leader	Review	Summary	Variance
Nuclear	Propellant	Revision	Sump	VE (Value Engineering)
-----	Property	RFI/RI (RCRA Facility Investigation/Remedial Investigation)	Support	Ventilation
Observation	Proposal	Risk	Surface	Verification
Off-gas	Protection	RPF (Records Processing Facility)	Surveillance	Video
Oil	Protocol	-----	Survey	Volatile
Open	PRS (Potential Release Site)	Safety	Swipe	Volume
Open Burning	Public	Salamander	SWMU (Solid Waste Management Unit)	-----
Operation	Pump	Salvage	System	Warehouse
Order	Purchase Request	Sample	Tank	Waste
Organic	-----	Sampling Plan	Task	Water
Organization	Quality	Sanitary	TCLP (Toxicity Characteristic Leaching Procedure)	WBS (Work Breakdown Structure)
	QA (Quality Assurance)	Satellite	TDD (Technical Document Description)	Weapon
	QP (Quality Procedure)	Schedule	Technical	Well
	Quarterly Report	Scope	Technical Team	Work
	-----	Scrap Detonation Site	Technology	Working Group
	Radioactive	Screening	Telephone Record	-----
	Radiochemistry	Scrubber	Test Area	Zinc
		Security		
		Seep		

OFFICE MEMORANDUM

o Roy Reider, Safety Director

DATE: September 28, 1962

FROM : W. Clarence Courtright

SUBJECT: INSPECTION FOR POSSIBLE EXPLOSIVE CONTAMINATION OF TA-20, SANDIA CANYON SITE, AND TA-27, GAMMA SITE

SYMBOL : H-3

During the first two weeks of September, 1962, R. W. Drake, GMX-DO, and I made several field trips and inspections at the abandoned firing sites, TA-20, Sandia Canyon Site, and TA-27, Gamma Site (sometimes called Pajarito Site) to determine if hazardous amounts of explosives were present. We also contacted personnel still employed by LASL who had worked or had been at these sites during the times they were in active use. These people were: E. L. Peterson, Roger Rasmussen, R. M. Van Lyssel, Elizabeth Gittings, M. L. Clancy, M. J. Urizar, R. L. Converse and J. R. Ditto. Site locations and maps were obtained from John Sizer, ENG-3.

Both of these sites were abandoned no later than 1947, but were used for a wide variety of explosive firing experiments when they were active.

It was ascertained that at least two attempts were made to "clean-up" loose explosives lying on the ground at Sandia Canyon Site. These efforts were apparently brought about by an experiment at a firing point in which 500 pounds of Comp B went low order, scattering the explosives. The using group, headed by E. L. Peterson, spent two days immediately afterwards with eight or ten people cleaning up the area.

In the summer of 1948, after the site had been abandoned and in preparation for the construction of the East Jemez Road (Sandia Canyon Access) a crew of 10 or 12 laborers under the supervision of R. L. Converse spent about two weeks cleaning the area for exposed explosives. This effort yielded about 60 to 70 pounds of explosives. This area was later looked at by C. A. Burch and J. R. Penland of the H-3 Safety Office.

Drake and I made two trips to Sandia Canyon, accompanied on one by R. L. Converse. We were able to locate all of the previous firing points and made close inspections around each for exposed explosives. We found one piece of explosive, about the size of a golf ball which was later confirmed to be Comp B. This was found very close to manhole TA-20-3 as shown on LASL Engineering R-138 drawing.

We made three trips to Gamma Site, accompanied on one by M. L. Clancy. We had learned that a bullet sensitivity type of test, involving the remote-control firing of a .50 caliber machine gun at blocks of explosive, was once conducted at TA-27. Such a test naturally produces fragments of undetonated explosive. We did not ascertain that any formal effort was ever made to clean this site of scattered explosives.

Received by ER-RPF

JUL 20 1992

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We were able to locate the previous firing points; however, one has been disturbed by the recent road construction. We made close inspection of all of these for exposed explosives. We were able to find explosives only at one located about 400 feet southeast of firing bunker TA-27-2 as shown on IASL Engineering R-1250 drawing. (Near Grid Point South 75 + 00 and East 240 + 00) no explosives were found beyond 250 feet from this firing point. We are satisfied that it was this pit over which the target blocks of explosive were arranged, the gun firing controls being located in TA-27-2. On our first inspection of about an hour, we picked up about 50 pieces of explosives totaling about one and one-half pounds. These are shown in attachment No. 1. On the two later inspections, explosives were found but in lesser quantities.

At both sites the locating of exposed explosives is difficult because of the growth of grass and small shrubs over the entire area. The "leaching out" of the TNT and its staining the ground causing a large brown ring was the means by which one located most of the pieces. It should also be noted that most of the larger pieces were partially buried in the ground and were located only by a small portion of the piece being exposed.

Some representative samples of the explosive pieces found were given to L. C. Smith, G-2, for the purpose of determining composition, stability, and impact sensitivity. The results indicated that the explosive was Composition B. Most of the TNT had migrated to the surface and some had leached away. This left lumps of RDX and some nice crystal structures. Some of the material contained a considerable amount of decomposition products. The impact sensitivity tests showed the samples to be less sensitive than standard RDX but more sensitive than standard Comp B and should probably be handled like RDX. This report is shown in attachment No. 2. This explosive has been on the ground exposed to the elements for at least 15 years.

RECOMMENDATIONS

1. At Gamma Site an area of about two acres should, around the firing pit near TA-27-2, be posted with signs every 150 feet that say "Loose Explosives - Keep Out".
2. At Sandia Canyon a single permanent sign or marker be installed near old TA-20-3 in order that the location can be found but not stating that explosives might be present.
3. That these areas be recorded by ENG-3 on permanent Engineering drawings.
4. That all material evidence of a former firing site be removed. This would mean removing things like firing bunkers, board walks, used cable, concrete foundations, metal plates, boards and other debris.

5. That a crew of five or six experienced explosive men, properly supervised, make a close inspection for HE of the two areas where explosives were found. This should be done now and then again in late winter or early spring. This inspection should be continued once a year alternating between a time when the least vegetation exists and a time after the summer rains. The need for these inspections should be re-examined after five years.

W. Clarence Courtright
W. Clarence Courtright
Safety Engineer

Concurred in:

R. W. Drake - 28 September 1962
R. W. Drake, GMX-DO

WCC:jn

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