

ER Record I.D.# 001246B

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

DATE RECEIVED: 2/9/93 PROCESSOR: JAP

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

DOCUMENT TO: DU 1130 File DOCUMENT DATE: 06/16/92
ORIGINATOR NAME: Sharad Kelkar ORGANIZATION: EES-4
SYMBOL: EES-4-92-189 PAGE COUNT: 1
SUBJECT/TITLE: Meeting with Richard (Dick) H. Warnes

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

- | | | | | |
|-------------------------|-----------|------------------|------------------------|------------------|
| Analytical Data | FAX | Map | Plan | Study |
| Chain-of-Custody | Figure | <u>Memoranda</u> | Procedure | Telephone Record |
| Computer Output | Form | Microform | Purchase Request | Transcription |
| Contract | Interview | Notebook | Receipt Acknowledgment | Video |
| Controlled Distribution | Letter | Personal Notes | Report | Work Plan |
| Drawing | Logbook | Photo | Review | 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)	ADS NO(S)	WBS NO(S)	STRUCTURE NO(S)/MDA
LIST RELEVANT TECH AREAS:	LIST RELEVANT ADS NO(S):	LIST RELEVANT WBS NO(S):	LIST RELEVANT STRUCTURE NO(S)/MDA
—	—	—	—

31572



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

PRS NO(S)
LIST RELEVANT PRS NO(S).

—

DOCUMENT TO
LIST MULTIPLE RECIPIENTS.

—

ORIGINATOR NAMES
LIST MULTIPLE ORIGINATORS.

—

CORRECTION (Y/N): —
(Is this a correction to a record previously processed?)

CORRECTED #: —
(If answer is Yes, please give ER Record # for corrected record.)

CORRECTION DESCRIPTION (Optional): —

SUPERCEDE: — **REPLACE:** — **DELETE:** — **ADD:** — **REVISE:** —

ATTACHMENT LIST

N/A

KEYWORDS: Circle relevant KEYWORDS from the list below for ER Record #: 12468

MISCELLANEOUS (List other indexing criteria as necessary; please write legibly): Propellant gun
aluminum Ferrum, Copper, Lead Plumbum, Baratol, PBX
Comp B, TNT, Nitromethane, metal plates, Depleted Uranium (DU)

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

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

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: LANL-ER, OU 1130 FILE
FROM: Sharad Kelkar
SYMBOL: EES-4-92-189
SUBJECT: MEETING WITH RICHARD (DICK) H. WARNES

DATE: June 16, 1992
MAIL STOP: D - 443 / 7-4318

Sharad Kelkar had a meeting with Richard (Dick) H. Warnes (M-7, 7-5220, TA-22) on April 20, 1992. These are the notes made by Sharad during the meeting:

- Dick was with M-4 from 1957 to February 1990. He did testing at IJ.
- IJ was a research area.
- To the best of his knowledge, IJ was built around 1949-50.
- Stan Minshall used a propellant gun to fire metal at metal, Fe, Cu, Pb. To the best of Dick's knowledge, no Beryllium was used.
- Standard explosives (e.g. Baratol, PBX, Comp B, TNT, Nitromethane etc.) were used to drive metal plates into targets of Antimony, pyrene and other organics during 60's. In 70's, they did about 6 vessel shots with radioactive materials, then a new vessel was built, and they fired about 3-4 shots in that. Plutonium was used. Other people used the vessel too. Gas generated from the shots was vented to the atmosphere through high efficiency particulate filters and monitored by Laboratory health monitors.
- Last tests Dick did there were about 1975, as far as he can remember.
- To the best of Dick's knowledge, IJ went to M-8 in 82-83.
- He does not remember using DU at IJ, but it is likely. If DU was used, it would likely have been in the form of plates and driven into the ground.
- Richard Dick, now a consultant at EES-3, fired shots there. Talk to him.
- Liquid hydrocarbons, Argon, Benzene and related compounds were used at IJ.
- Talk to Elizabeth Marshall, now retired, lives on the hill.
- Stan Landeen, now living in California, used to work at IJ.
- Dick doesn't think Roger Rasmussen was involved with IJ, but he might have been prior to 1957.
- The plane wave lenses were typically aimed downwards, but liquid explosives and solid explosives with liquid targets had to be fired upwards.
- Periodically the ground was raked by Zia for metal pieces. Normally there is no explosive scattered. Debris from wooden tables and such was hauled off to a contaminated burn site.

Reviewed and corrected by Dick Warnes

Date

6/26/92

Richard H. Warnes

