Los Alamos Environmental Restoration Records Processing Facility

ER Record I.D.# 0004636

DATE RECEIVED: 7-1-94 PROCESSOR: JR

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LOS ALAMOS

LOS ALAMOS NATIONAL LABORATORY

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

Part I: Complete all fields; indicate NA (Not Applicable) if appropriate; please write legibly.

DOCUMENT TO: —

DOCUMENT DATE: 6/7/73

ORIGINATOR NAME: —

ORGANIZATION: —

SYMBOL: —

PAGE COUNT: 7

SUBJECT/TITLE: Environmental Assessment For AEC/ALO Project No. 19 Improve Septic Tank Systems, LASL Tech Areas

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	Memo	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 #: —

Part II: Complete all fields; indicate NA (Not Applicable) if 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)	PRS NO(S)	TOD (ADS) NO(S)	STRUCTURE NO(S)/MDA
(LIST RELEVANT TECH AREAS)	(LIST RELEVANT PRS NO.)	(LIST RELEVANT TOD (ADS) NO.)	(LIST RELEVANT STRUCTURE NO./MDA)
2	—	1098	—
6		1111	
9		1157	
15		1086	
16		1082	
22		1122	
33		1129	
35		1130	
36		1132	
39		1147	
40			
48			
50			
41			

33035

Part III: Complete all fields; indicate NA (Not Applicable) if appropriate; please write legibly. Use *ER Record Index Form Attachment Sheet* if needed.

WBS NO(S)	DOCUMENT TO	ORIGINATOR NAMES
(LIST RELEVANT WBS NO(S))	(LIST MULTIPLE RECIPIENTS)	(LIST MULTIPLE ORIGINATORS)
1.5.11 1.5.14 1.5.26 1.5.9 1.5.7 1.5.16 1.5.17 1.5.18 1.5.19 1.5.23	—	—

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:** —

KEYWORDS: Circle relevant KEYWORDS from the list below for ER Record #: 0004636

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

[redacted]
Aboveground Tank
Absorption
Accelerator
Access
Accident
Accumulation
Acid
Active
Administrative
ADS (Activity Data Sheet)
Adsorption
[redacted]
Air
Alpha
Americium
Analysis
Analytical
AOC (Area of Concern)
Approval
Aquifer
ARAR (Applicable, Relevant, or Appropriate Requirements)
Archaeology
Archive
Area
Arsenic
Asbestos
Asphalt
[redacted]
Audit

Bacteria
Barium
Baseline
Beds
Bermed Area
Beryllium
Beta
Biology
Blank
Boiler
Boneyard
Buried
Burn
Burn Site

Cadmium
Caisson
Calibration
[redacted]
Caustic

CEARP (Comprehensive Environmental Assessment and Response Program)
Cement
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
Certification
Cesium
Chain-of-Custody
Chamber
Change Control
Change Order
Chart
Chemical
Chromium
Cleanup
Clothing
Closure
CMI/RA (Corrective Measures Implementation/Remedial Action)
CMS/FS (Corrective Measures Study/ Feasibility Study)
Comment
Committee
Community Relations
Compressed Gas
Computer Modeling
Computer Output
Concrete
Configuration
[redacted]
Contaminant
Containment
Contaminant
Contract
Controlled Distribution
Core
Corrective Action
Correspondence

Date
Deadline
Debris
Decision Analysis
Decommission
Decontamination
Deficiency
Deliverables
Demolition
Description
Detection
Detonation
Development
Discharge
Disposal
Documentation
DOE (Department of Energy)
DQO (Data Quality Objectives)
Draft
Drainage
Drainline
Drawing
Drilling
Drop Tower
Drum
Dry Well
Dump
Duplicates

Ecology
Effluent
EIS (Environmental Impact Statement)
Emission
Engineering
Environmental
EPA (Environmental Protection Agency)
Equipment
ERDA (Energy Research and Development Administration)
Erosion
Error
ES&H (Environment, Safety, and Health)
Estimate
Evaluation
Evaporator
Excavation
Exclusion
Exhaust
Experiment
Explosive
Extension
Extraction

Facility
Farm
FAX
Fence
Field
Figure
Filter
FIMAD (Facility for Information Management, Analysis, and Display)
Finding
Fire
Firing Site
Fiscal
Five Year Plan
Flowchart
Fluid
Form
Framework
Fuel

Gamma
Gas
Generation
Generic
Geochemistry
Geology
Geophysics
Glass Breaker
Glove Box
Graph
Guidance
Gun

Hazardous
Health
HE (High Explosive)
History
Hole
Home Owner
HSWA (Hazardous and Solid Waste Amendments)
Hydrology

Implementation
Implosion
Impoundment
Inactive
Incinerator
Injection Well
Inorganic
Interim
Interim Action
Internal
Interview
Inventory
Investigation
IRM (Interim Remedial Measure)
Isotope
IWP (Installation Work Plan)

Lab Job
Lagoon
Land
Landfill
Laundry
Leach
Lead
Leak
Legal
Letter
Limit
Lines
Liquid
List
Logbook

Management
Manhole
Map
Material
MDA (Material Disposal Area)
Meeting
Memo
Mercury
Metal
Microform
Minimization
Minutes
MIS (Management Information System)
Mixed Waste
MOA (Memo of Agreement)
Model
Modification
Money (Allocation, Appropriation, Budget, Cost, Funding, etc.)
Monitoring
Monthly Report
Mortar Impact Area
MOU (Memo of Understanding)
MSA (Major System Acquisition)

NEPA (National Environmental Policy Act)
Nitrate

NMED (New Mexico Environmental Division)
NMEID (New Mexico Environmental Improvement Division)
NOD (Notice of Deficiency)
Non-explosive
Notebook
Notification
NPDES (National Pollutant Discharge Elimination System)
NRC (Nuclear Regulatory Commission)

Off-gas
Oil
Open
Open Burning
Operation
Order
Organic
Organization
OSHA (Occupational Safety & Health Administration)
OU (Operable Unit)
Outfall
Outline

PA/RFA (Preliminary Assessment /RCRA Facility Assessment)
PCB (Polychlorinated Biphenyl)
Permit
Personal Notes
Personnel
Personnel Qualification
Photo
Pilot Study
Ping
Pit
Plan
Plans
Plutonium
Pollution
Pollutant
Potential
Priority
Procedure
Programmatic
Project
Project Leader
Propellant
Property
Proposal
Protocol
PRS (Potential Release Site)
Public
Pump
Purchase Request

Quality
QA (Quality Assurance)
QP (Quality Procedure)
Quarterly Report

Radioactive
Radiochemistry
Radionuclide
Rationale
RCRA (Resource, Conservation, and Recovery Act)
Reactor
Receipt Acknowledgment
Records
Recovery
Recycle
Reduction
Reference
Regulation
Release
Remediation
Removal
Report
Request
Requirements
Research
Resin Bed
Resolution
Response
Restoration
Restriction
Results
Review
Revision
RFI/RI (RCRA Facility Investigation/Remedial Investigation)
Risk
RPF (Records Processing Facility)

Safety
Sample
Sampling Plan
Sanitary
Satellite
Schedule
Scope
Scrap Detonation Site
Screening
Scrubber
Seep
Seminar
Semivolatile
Septic
Sewer
Shaft
Shell
Silver
Site
Soil
Solid
Solvent
SOP (Standard Operating Procedure)
SOW (Statement or Scope of Work)
Specific
Spill
Stack
Standard
Statistics
Steamline
Steel
Storage
Strontium
Structure
Study
Subcontractor
Subsurface
Summary
Sump
Support
Surface
Surveillance
Survey
Swipe
SWMU (Solid Waste Management Unit)
System

Tank
Task
TCLP (Toxicity Characteristic Leaching Procedure)
TDD (Technical Document Description)
Technical
Technical Team
Technology
Telephone Record
Test Area
Testing
TLD (Thermoluminescent Dosimeter)
TOC (Table of Contents)
Townsite
Toxic Metal
Tracking
Training
Transcription
Transfer
Transport
Treatment
Trench
Trip Report
Tritium
TRU (Transuranic)
TSCA (Toxic Substances Control Act)
Tuff

Underground
Uranium
USGS (United States Geological Survey)
UST (Underground Storage Tanks)

Validation
Variance
VE (Value Engineering)
Ventilation
Video
Volatile
Volume

Waste
Water
WBS (Work Breakdown Structure)
Weapon
Well
Work
Working Group

Zinc

(7)

TA 6

ENVIRONMENTAL ASSESSMENT

FOR

AEC/ALO PROJECT NO. 19

IMPROVE SEPTIC TANK SYSTEMS, LASL TECH AREAS

LOS ALAMOS SCIENTIFIC LABORATORY

UNIVERSITY OF CALIFORNIA

LOS ALAMOS, NEW MEXICO

7 JUNE 1973

Received by ER-RPF

JUL 01 1992

6173000 6068

1. Description of Proposed Action and Anticipated Benefits

This project is to improve septic tank systems serving LASL Technical Areas of relatively low population which are remote from the sewage treatment facilities of the more densely populated technical areas. The isolation required because of the nature of the projects at these sites or because of the rugged terrain in which these technical areas are located makes the costs of routing domestic sewage to a centralized plant prohibitive. The technical areas of concern for this project are TA-2, TA-6, TA-9, TA-15, TA-16, TA-22, TA-33, TA-35, TA-36, TA-39, TA-40, TA-48, and TA-50.

The benefits from this project which consists of new seepage pits, filter trenches, sub-surface sand filters, and lagoons will range in scope from improving marginal systems to eliminating unsanitary and undesirable conditions. The proposed action and anticipated benefits for each of the Technical Areas are as follows:

	Proposed Action	Anticipated Benefits
TA-2, Omega:	A lift station and force main will be provided to pump sewage to TA-41 treatment plant.	The release of septic tank effluent directly to a stream bed will be discontinued and the TA-2 sewage will receive better treatment.
TA-6, Two-Mile Mesa:	A new filter trench will be constructed.	An inadequate drainage field will be eliminated.
TA-9, Anchor:	Two septic tanks, one of which is undersized will be replaced by one lagoon.	The release of septic tank effluent directly to a canyon will be discontinued.

TA-15, R-Site:	New seepage pits will be constructed for four septic tanks. Three of these tanks will have sampling boxes.	Inadequate drainage fields will be eliminated.
TA-16, S-Site:	Existing tank will be filled with gravel and abandoned.	One less septic tank will need maintenance.
TA-22:	Industrial flows currently going to septic tank will be separated from sewage flows. A new subsurface sand filter will be constructed.	The surfacing of sewage from an exhausted part of the seepage field system will be discontinued.
TA-33, HP-Site:	Two seepage pits and a sampling box will be provided.	An inadequate drainage system will be replaced.
TA-35, Ten Site:	Sampling boxes will be installed at tanks No. 14, 44, 65 and 76. A new seepage pit will be constructed for tank No. 14.	Inadequate drainage fields will be eliminated.
TA-36, Kappa Site:	A new sampling box and seepage pit will be constructed for tank No. 17.	An inadequate drainage field will be eliminated.
TA-39, Ancho Site:	A new subsurface sand filter will be constructed.	The daylighting of septic tank effluent directly to a canyon stream bed will be discontinued.
TA-40, DF Site:	A new sampling box and two new seepage pits will be provided.	An inadequate drainage field will be eliminated.

TA-48, Radiochemistry Site:	The existing surface sand filter will be renovated and a sampling box will be installed.	The renovation will improve the capability of the filter.
TA-50, Liquid Waste Treatment:	A sampling box will be provided.	

The anticipated benefit of the sampling boxes is that they will facilitate the monitoring of an accidental release of chemicals or radioactivity to the sewage systems. They are proposed only for sites where the potential for such a release exists. However, even at sites where sampling boxes are proposed, a release of this type is very unlikely.

2. Evaluation of Potential Environmental Impact

The potential (and expected) benefits of this project need not be detailed for each site. The environmental impact at each site is a beneficial and needed one. The project is intended to alleviate undesirable environmental situations.

3. Assessment of Alternatives to the Proposed Action

Although it is understood that the proposed project does not provide the latest or most sophisticated methods of sanitary waste treatments, it appears to be the most reasonable in this instance when compared to the following alternatives.

A. Package Sewage Treatment Plants

This approach with proper design and maintenance will provide a better quality effluent but the costs involved to serve such low populations, and the consequences of improper maintenance of the treatment plants rule out this alternative.

WATER POLLUTION CONTROL ESSENTIAL FEATURES ANNEX

U. S. ATOMIC ENERGY COMMISSION, ALBUQUERQUE OPERATIONS OFFICE

AREA OFFICE: LOS ALAMOS, N. M.

AEC CONTRACTOR: UNIVERSITY OF CALIFORNIA

DATE: JUNE 7, 1973

AEC/ALO PROJECT NO. 19

IMPROVE SEPTIC TANK SYSTEMS, LASL TECH AREAS

1. Nature of the Pollution

a. This project will not produce new waste water effluents, it will instead improve the quality of existing effluents by improvement or replacement of inadequate or marginal sewage handling systems. The total volume of waste water to be affected is estimated at 8,500 gallons per day.

b. The waste will be normal domestic sewage from office or industrial operations buildings generally occupied during regular 8-hour work days.

c. Industrial wastes will not be produced.

d. Radioactive wastes will not be produced.

2. Treatment and Control Methods. Several treatment methods are proposed for this project because of differences in waste volumes, soil characteristics, and availability of land at the sites. The particular situation and needs at each site were considered separately. The methods proposed because the costs prohibit the use of complete treatment plants are lagoons, or septic tanks followed by seepage pits, filter trenches or subsurface sand filters.

The following table describes the proposal for the sites:

Site	Estimated Volume Gallons/Day	Proposed Action
TA-2	375	A lift station and force main will be provided to pump sewage to TA-41 treatment plant.
TA-6	120	A new filter trench will be constructed.
TA-9	480	Two septic tanks will be replaced by one lagoon.
TA-15	450	New seepage pits and a sampling box will be constructed.
TA-16	--	Abandoned tank will be filled with gravel.
TA-22	1155	A new subsurface sand filter will be provided.
TA-33	840	Two seepage pits and a sampling box will be provided.
TA-35	1950	Three sampling boxes and a new seepage pit will be constructed.
TA-36	450	A new seepage pit and sampling box will be constructed.
TA-39	600	A new subsurface sand filter will be provided.
TA-40	420	Two new seepage pits and a sampling box will be provided.
TA-48	1080	The existing surface sand filter will be renovated and a sampling box will be installed.
TA-50	495	A sampling box will be provided.

3. **Explanation of New or Unusual Waste Water Treatment Processes.**
This section is not applicable.

4. Statement of Content and Quality of the Effluent to be Discharged to the Environment

a. The effluents resulting from the proposed improvements of the subject septic tanks systems may or may not meet state water pollution control emission standards. The New Mexico Environmental Improvement Agency (EIA) is in the process of establishing new standards to comply with Federal regulations. If these proposed standards are established there should be no conflicts because (1) the Federal standards have no limiting value for COD (chemical oxygen demand) which will be an area of concern regarding lagoon effluents, and (2) the septic tank modifications will be designed as per a Federal standard, the USPHS "Manual of Septic Tank Practice".

If the proposed standards are not established, and the present standards (now under litigation) remain in effect there will be two EIA requirements which will not be met. The lagoon systems will not meet the 80 mg/l standard and the seepage fields and pits will not be acceptable to the EIA.

b. The effluent contaminant concentrations will be reduced to the lowest economically practicable level, but not to the lowest technologically practicable level.

c. The effluents from the proposed lagoon systems will be bacteriologically unfit for drinking as they leave the systems, however flora and fauna will not be adversely affected by these discharges.

d. Efforts are continually being made to meet state and national goals and to eliminate the discharging of pollutants. Improved technology and waste management are improving the quality of effluents, but in the end, the economics in areas such as water reuse when dealing with many scattered facilities, each producing relatively low volumes of effluents will be the deciding factor.