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Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

RECEIVED
DEC 11 1996
NM ENVIRONMENT DEPARTMENT
OFFICE OF THE SECRETARY

Mr. Edgar T. Thornton, III
Deputy Secretary
Office of the Secretary
and
Dr. Edward Kelley
Water and Waste Management Division
New Mexico Environment Department
1190 St. Francis Drive
P. O. Box 26110
Santa Fe, NM 87502

Dear Mr. Thornton and Dr. Kelley:

Subject: Los Alamos National Laboratory's: (1) Notification of Name and Address Changes Provided for in Consent Agreement for Compliance Orders 93-01, 93-02, 93-03, and 93-04, and (2) Proposal for Revisions to the Remedial Action Plan Attachment to the Consent Agreement

The purpose of this letter is twofold. First, we wish to notify the New Mexico Environment Department (NMED) of name, title, and address changes for a number of individuals identified in Section XIV of the Consent Agreement for Compliance Orders 93-01, 93-02, 93-03 and 93-04, which was executed by the University of California (UC) and the Department of Energy (DOE), and approved by the Secretary of NMED on December 10, 1993. Second, we are proposing some changes to the Remedial Action Plan (RAP), Attachment B to the Consent Agreement, in accordance with the terms of Section XXI of the Consent Agreement, that are very important to the expedited retrieval and safe placement in inspectable storage of the wastes subject to the RAP. The proposed changes add greater efficiency to the retrieval and storage processes, while maintaining or improving safety, human health, and environmental safeguards. As two of the four members of the Advisory Group, we are forwarding this package to you, the other two members of the Advisory Group, for your consideration and approval. By this letter we seek approval from the Secretary of NMED, as required under terms of the Consent Agreement.

Background

The Consent Agreement entered into by UC, DOE, and NMED requires that UC and DOE retrieve over 16,000 drums and over 180 fiberglass-reinforced, plastic coated plywood crates of transuranic waste, most of it mixed waste, from underneath earthen cover at Pads 1, 2 and 4 at Area G in Technical Area (TA) 54 at Los Alamos National Laboratory (LANL), and that these containers be placed in an inspectable storage array in compliance with the requirements of the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act

The Consent Agreement has three attachments. Attachment A consists of the Final Order executed by the Secretary of NMED approving the Consent Agreement. Attachment B is the Remedial Action Plan, which contains (1) a list of actions needed to accomplish waste retrieval, (2) a brief description with illustrations of the sequence of steps of construction for the project, and (3) a more detailed description of the construction and waste retrieval processes. Attachment C consists of the Compliance Schedule, with the next scheduled deadline being completion of Pad #1 retrieval by September 30, 1998. The final deadline of the Schedule requires that all wastes from Pads 1, 2 and 4 be placed into Area G transuranic storage units by December 10, 2003.

Notification

Section XIV, "Exchange of Documents" of the Consent Agreement allows for the identity or address of designated document recipients to be changed through the giving of notice in writing to each of the parties (UC, DOE and NMED) to the Consent Agreement. UC hereby gives notice that the identity, title, address and phone number of the representative for UC provided for in Section XIV at the bottom of page 19, John Krueger, should be replaced with the following:

Gilbert Montoya
TWISP Project Leader
CST-14, MS-J592
Los Alamos National Laboratory
Los Alamos, NM 87545
(505) 665-6158
(505) 665-8347 (fax)

UC gives further notice that the title, address and phone number of its representative for the Technical Group, as provided for in Section XIV at the middle of page 20, Kenneth Hargis, should be replaced with the following:

Aden Jackson
Deputy Group Leader
ESH-19, MS-K490
Los Alamos National Laboratory
Los Alamos, NM 87545
(505) 665-1120
(505) 667-5224 (fax)

Finally, UC gives notice that the division title for Dennis J. Erickson, identified as UC's representative for the Advisory Group, in Section XIV at the top of page 21, should be changed from "Quality, Environment, Safety and Health Assurance Division" to "Environment, Safety and Health Division."

DOE gives notice that the identity, title, address and phone number of its representative for the "Exchange of Documents," in Section XIV at the bottom of page 19, Jon Mack, should be replaced with the following:

H. L. "Jody" Plum
Manager of Regulatory Permitting and Compliance
U. S. Department of Energy
Los Alamos Area Office
528 35th Street
Los Alamos, NM 87544
(505) 665-5042
(505) 665-4872 (fax)

DOE gives further notice that the identity, title, address and phone number of its representative for the Technical Group, in Section XIV at the middle of page 20, Joseph Vozella, should be replaced with the following:

H. L. "Jody" Plum
Manager of Regulatory Permitting and Compliance
U. S. Department of Energy
Los Alamos Area Office
528 35th Street
Los Alamos, NM 87544
(505) 665-5042
(505) 665-4872 (fax)

Finally, DOE gives notice that the identity of its representative for the Advisory Group, in Section XIV at the top of page 21, should be changed from "Jerry L. Bellows" to "G. Thomas Todd."

Revisions to the Remedial Action Plan

At the time that the Consent Agreement was drafted and executed, it was contemplated that its Attachment B, the Remedial Action Plan (RAP), might be in need of modification before actual waste retrieval began, as there were a substantial number of antecedent steps that could suggest that processes and procedures occur differently than as provided for in the RAP. The opening paragraph of the RAP made this awareness of possible changes explicit. It acknowledged that, because the Safety Analysis Report and review of the Facility Final Design and Permit Application were unfinished, " this plan may have to be modified to ensure (1) worker and public safety, (2) protection of the environment, (3) the most safe and efficient method is used to retrieve the waste, and (4) compliance with State requirements [numerals in parentheses replace bullets in original text]." The Consent Agreement provided in Section XXI that the RAP could be amended upon agreement and written signature by the "Technical Advisory Group," subject to the written approval of the Secretary.

The Safety Analysis Report (SAR) referred to in the RAP is now complete as of August 1996, and except for the Waste Analysis Plan submitted in connection with the Permit Application, the permitting action is also completed. UC and DOE have learned that a number of modifications to the retrieval process and to the equipment to be used in the process are appropriate, in order to make the retrieval process safer and more efficient. These were found in the course of preparing the SAR, in the concrete planning for use of equipment, and in the actual trial use of equipment. Consequently, UC and DOE are proposing a number of changes to the RAP that are represented in the highlighted/strike out version of the RAP (pages 4, 6, 8 and 11-16) that is attached to this

letter as Attachment 1. All other text and illustrations of the RAP would remain unaffected. The rationale for each of the proposed changes is presented in Attachment 2, which is set up in a table format. The table identifies by number - corresponding to the number in the margin in the RAP - where the proposed change is to occur, the substance of the change, and the rationale for the change in text. Attachment 3 is a clean copy of complete Attachment B to the Consent Agreement with the proposed changes incorporated.

As indicated above, the Consent Agreement provides that the RAP can be amended by the "Technical Advisory Group", subject to the written approval of the Secretary of NMED. The phrase "Technical Advisory Group" is not defined in the Consent Agreement; rather, representatives are identified for the Technical Group and for the Advisory Group, with the second group being higher in terms of hierarchy. We would propose that for the purpose of executing any agreed upon amendments to the RAP, the Advisory Group be the agreed upon entity. Please let us know if this is agreeable with you.

The retrieval project is scheduled to undergo an operations readiness review by UC in December 1996, and will undergo a second such review by DOE immediately after the first of the year. Assuming successful completion of these two reviews, the target start-up date for actual waste retrieval is the first week in February. While we view the proposed changes to the text of the RAP as being relatively minor in scope, they do have a significant impact on how the project will function in terms of earth removal and drum processing. Consequently, we would hope that the changes we have proposed can be processed and forwarded to the Secretary for approval before the targeted start date. Please do not hesitate to let us know if there is any assistance that our respective staffs can provide in expediting the processing of this request for RAP amendment. For UC, the staff point of contact is Hilary Noskin of the LANL Hazardous and Solid Waste Group, at (505) 667-7954; for DOE, the staff point of contact is Jody Plum, Manager of Regulatory Permitting and Compliance, at (505) 665-5042. Thank you for your assistance with regard to this matter.

Sincerely,

Dennis J. Erickson
Division Director
Environment, Safety and Health Division
Los Alamos National Laboratory

G. Thomas Todd
Area Manager
Los Alamos Area Office
U. S. Department of Energy

LAAMEP:3JP-027

Enclosures

cc:
See page 5

cc w/enclosures:
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Hazardous and Radioactive Materials Bureau
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2044 Galisteo Street, Bldg. A
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Susan McMichael, Esq.
Assistant General Counsel
Office of General Counsel
New Mexico Environment Department
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bcc w/enclosures:
Hortense Haynes, Office of Counsel, LAAO
Joseph Vozella, LAAMEP, LAAO
Jon Mack, LAAMEP, LAAO
H. L. Jody" Plum, LAAMEP, LAAO
Alex Gancarz, CST-DO, LANL, MS-J515
Thomas Baca, EM-DO, LANL, MS-J591
Micheline Devaurs, EM-WM, LANL, MS-J552
Kenneth Hargis, EM-WM, LANL, MS-J552
Tony Stanford, CST-14, LANL, MS-J595
Gilbert Montoya, CST-14, LANL, MS-J595
Hilary Noskin, ESH-19, LANL, MS-K490
Aden Jackson, ESH-19, LANL, MS-K490
Joseph Rochelle, LC/GL, LANL, MS-A187
James L. White, ESH-19, LANL, MS-K490
Paul Schumann, ESH-19, LANL, MS-K498
Gian Bacigalupa, ESH-19, LANL, MS-K490
W. R. Hughes, LC, LANL, MS-A183

ATTACHMENT 1

Attachment B
Remedial Action Plan

HIGHLIGHTED/STRIKE OUT PORTION

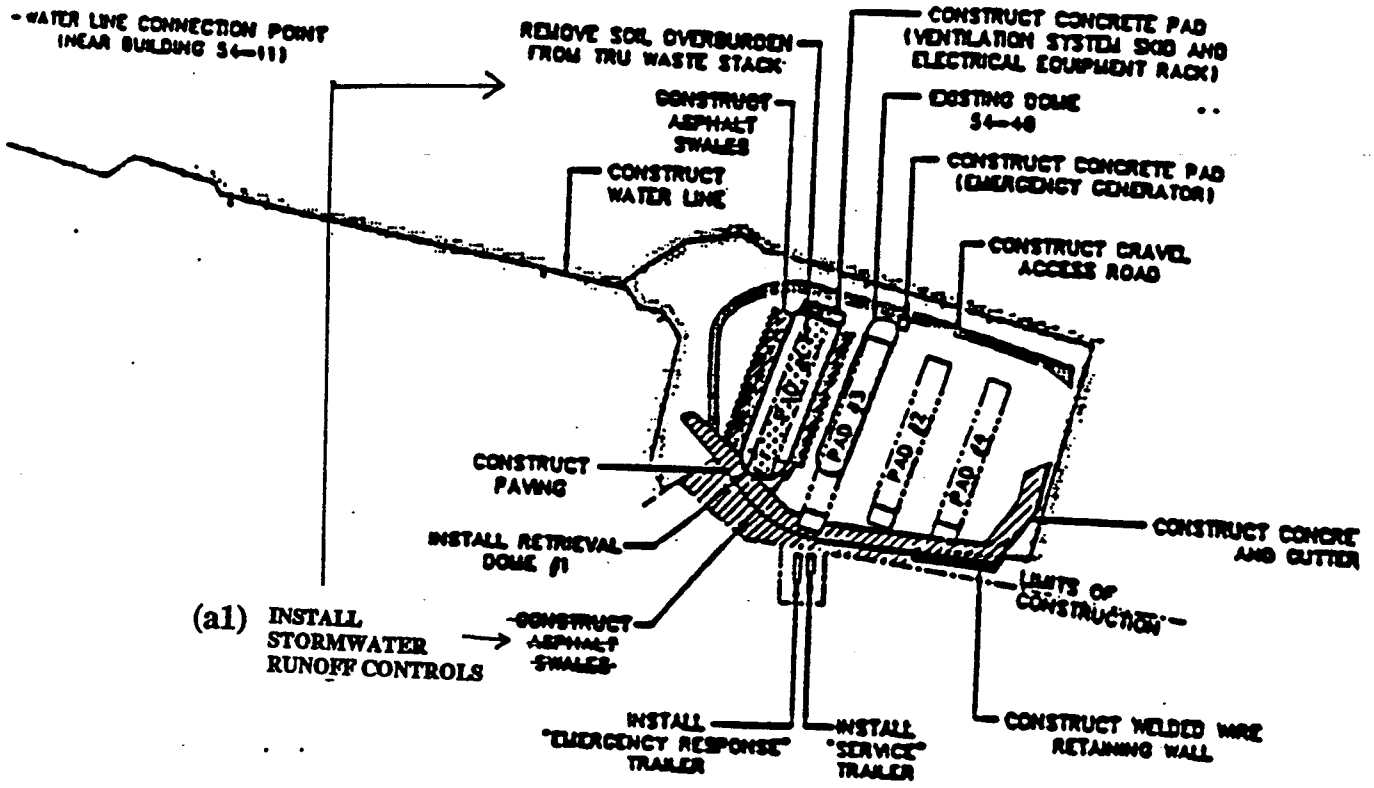

Figure 2. Construction Phase I-R

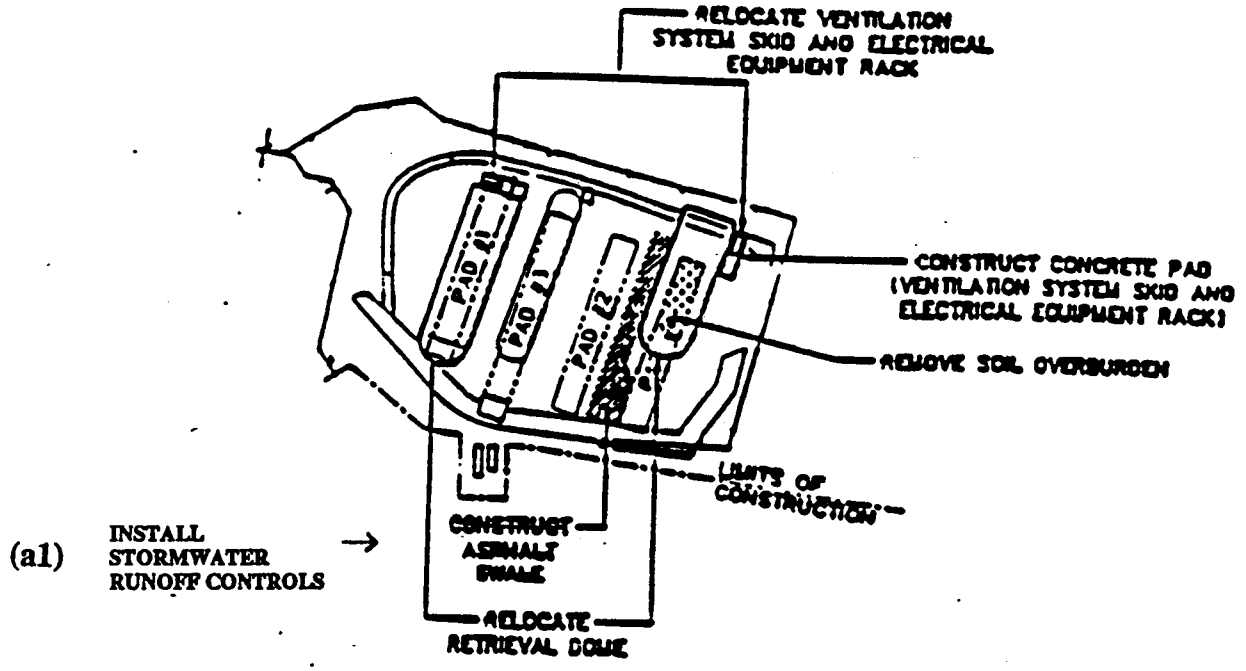

Figure 4. Construction Phase II-R

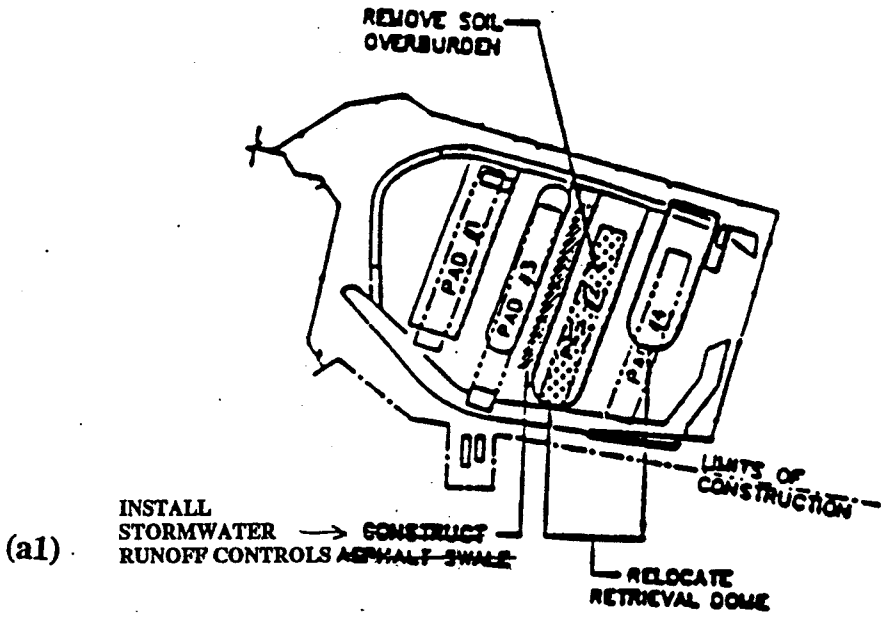

Figure 6. Construction Phase III-R

Attachment B
Remedial Action Plan

B. Detailed Description

1. Storage Domes

As Figure 1 shows, ~~,~~ Construction Phases I-S includes ~~considerable~~ site work. The surface of LLW Pits 1 and 3 (just south of the TRU pads where the retrieval operation will be executed) is not level enough to permit construction of the four new storage domes without grading. Because the site is over old waste disposal pits, grading must be accomplished primarily by fill and compact methods. The soil surface will be surveyed to determine whether radioactive contamination exists from previous disposal operations. If radiation above background levels is detected, the areas of contamination will be handled appropriately. Clean fill will be obtained from the spoils pile of crushed tuff created by excavation of LLW disposal pits. After compaction and grading, the asphalt pad will be laid.

A primary reason for the large amount of site work is to ensure that stormwater discharge requirements under the Laboratory's National Pollution Discharge Elimination System (NPDES) general permit are met and best management practices for stormwater runoff control are utilized.

During the latter part of Construction Phases I-S and I-R, Storage Domes A and B will be erected at the south end of the completed asphalt pad. Each of the planned storage domes is a tension support structure with fabric walls and aluminum supports. Asphalt curbs will then be installed around the inside perimeter of each of the domes. Power, communication systems, and fire protection (hydrants (1) and a dry pipe fire protection system) services will be extended to the domes. Finally, prior to waste transfer into the new domes, ambient air monitoring will be conducted inside the dome to establish "background" conditions.

Construction Phase II-S includes erecting Storage Domes C and D on the asphalt pad. Asphalt curbs will also be constructed around the inside perimeter of these domes. As necessary, utilities will again be extended to the domes.

During Construction Phase III-S, some additional site work and erection of Pad 1's Storage Dome's will occur. Additional asphalt will be added to both east and west sides of the present Pad 1. This site work will allow Pad 1's Storage Dome to fit on the Pad 1. As with the previous domes, an asphalt curb will be present around the inside perimeter of the dome.

Similar to Construction Phase III-S, Construction Phase IV-S includes additional site work before Pad 4's New Storage Dome can be constructed. Similar to Pad 1, asphalt will have to be added to both east and west sides of Pad 4. The Laboratory fully expects Pad 1's and Pad 4's asphalt pad to be in excellent condition. If the asphalt is not in excellent condition, that is if 30% or more of the asphalt pad is degraded, the entire asphalt pad will be replaced. In any case, any damaged portions of asphalt will be repaired.

2. Retrieval Dome

Construction Phase I-R also has a substantial amount of site work most of which is focused around Pad 1. The site work includes a water line installation, asphalt access paving along south edge of the site~~.~~, (2) extension of electrical power,~~construction of asphalt swales (for~~installation of stormwater runoff controls~~)~~, removal of the majority of the tuff cover over Pad 1 and erection of the Retrieval Dome over Pad 1. All tuff cover will not be removed because it is necessary to leave minimal cover of soil on top of the stack to provide weather protection and a fillet of tuff around the perimeter to support and stabilize the stack of waste containers. As appropriate, the tuff will be screened for radionuclide constituent contamination. Clean tuff removed from the pad will either be taken to the current LLW disposal pit for use as backfill or used as fill for Construction Phase I-S. Contaminated soil will be handled as appropriate.

Once site preparation for the Retrieval Dome is complete and the retrieval dome is erected, equipment and structural accessories necessary to ensure the Retrieval Dome is functional will be installed. The HEPA-filtered exhaust system and associated ductwork will be installed and attached to the skid-mounted exhaust blower and filter bank. An emergency power system (EPS) will be placed to the north of Pad 1. Though the EPS should not be necessary because work will stop if power is lost, it will provide power during power outages, or other emergencies. Two partitioning curtains will be hung from the dome frame to segregate the work area from the remainder of the enclosure and each curtain will be moved along the pad as waste is being removed. Personnel doors for emergency egress will be present along both sides of the work area. Electrical power will be extended into the Retrieval Dome to power continuous air monitors (CAMs), local and general ventilation systems, and the drum venting (3) system~~.~~, as needed. Support trailers will be located near Pads 1, 2 and 4.

Once the waste from Pad 1 is retrieved, Construction Phase II-R for retrieval of Pad 4 waste will then (4) begin~~s~~. The Retrieval Dome will remain available for interim storage of wastes during and after retrieval (5) operations. This phase includes preparatory site work at Pad 4, equipment relocation as needed,~~ of the ventilation system from Pad 1 to Pad 4,~~ and installation of ~~construction of an asphalt swale for~~ (6) stormwater runoff controls~~, and the relocation of the existing Retrieval Dome from Pad I to Pad 4~~).

After retrieval operations at Pad 4 are complete, Construction Phase III-R for retrieval of Pad 2 (7) waste will then begin. ~~will take place.~~ Similar to Construction Phase II-R, this phase includes preparatory site work around Pad 2 including ~~construction of~~installation of~~an asphalt swale for~~ stormwater runoff controls~~,~~ and equipment relocation as needed.~~ of the Retrieval Dome from Pad 4 to~~ (8) ~~Pad 2. The ventilation ,system will not be relocated during this phase, instead the ductwork will be extended from its existing location (near Pad 4) to the retrieval dome on Pad 2. Also, because the waste pile on Pad 2 is significantly longer than Pad 1 or Pad 4, new dome sections (approx. 60 feet) will be added onto the existing Retrieval Dome.~~

Finally, after retrieval operations are finished on Pad 2, Construction Phase IV-R will ensure that all equipment is either salvaged or disposed as appropriate.

3. Soil Removal

~~After the Retrieval Dome is erected,~~ As retrieval operations progress on each pad, the ~~remaining~~ tuff over the working face of the stack will be removed by ~~a vacuum truck,~~ various pieces of earth- moving equipment and supplemented by hand-loading tuff into wheelbarrows as needed.

(9) ~~The truck will be operated outside the dome by extending a duct under the enclosure fabric. A worker will guide the duct across the top of the stack to pick up the small clumps of tuff. Larger clumps will be hand loaded into a wheelbarrow.~~ The fillet of tuff across the front of the stack and that which extends along the sides near the working face~~, will be removed by hand and the vacuum truck~~ will also be removed by various pieces of earth-moving equipment and hand-loading if needed. When the fillet has been dropped below the top row of waste packages, the crates will be otherwise supported until the working face has been brought into a stable, stepped configuration. As the working face of the stack retreats, the soil removal operation will be repeated several times.

When all of the tuff has been removed from the working face, an air sample will be drawn from within the plywood and plastic cover. Along with the continued monitoring throughout the entire project, this sample will help Health Physics (HPT) and Industrial Hygienist (IHT) Technicians determine the extent of respiratory protection required during the removal of the plywood and plastic sheeting. After tuff removal, the plastic and plywood cover material will be disposed as appropriate.

4. Waste Package Retrieval

After the tuff has been removed from the working face and unnecessary dirt removal equipment removed from the working area, waste package retrieval can begin. Retrieval equipment will include

(10) forklifts, a small crane, a front end loader, CAMs, a HEPA-filtered vacuum cleaner, ~~and~~ HEPA-filtered ventilation system~~. A forklift with a custom~~, and ~~other~~ ~~boom/hoist/cage attachment will be used to retrieve steel drums.~~ hand held tools.

The waste package configuration within the stack can vary, but the most common arrangement consists of crates stacked along the sides and ends of individual storage cells, with drums stacked in the center. Crates are seldom stacked more than two high (with the largest crates on the bottom), and drums are commonly stacked four high. Waste package data, including an identification number, radioisotopic data, LANL waste content code, waste generator, weight, and the date the package was sealed are readily available from the TRU waste database. The database information will be available at the work site so that workers will know the nature of the waste in each package before it is handled.

a. Crates

Because FRP crate construction was not standardized when the waste was packaged, crate handling during waste retrieval cannot be standardized. The exact retrieval method used will be determined on a case-by-case basis. One method for crate retrieval may be to remove all waste packages around the individual crate, attach a long section of horizontally suspended I-beam (strongback) with fabric slings (which are spread to prevent crushing the top of the container), and lift the crate by strong back with a small crane or a forklift. An alternate method for FRP crate removal may involve using a large capacity forklift. If the bottom of the crate is significantly degraded, a metal sheet ~~will~~can be slid under the crate and the slings will pick the crate up from this new metal base. All such damaged crates will be repaired,

(11) ~~or~~ overpacked, or repackaged before they leave the work area by placing the ~~damaged container on a new plywood base and constructing a plywood crate around the old one~~contents of the damaged container in a sea-land metal container.

(12) ~~Recent i~~Interviews (October, 1993) with technicians, who worked on the TRU Pads in the late 1980's, revealed that some crates may contain liquids. The interviews revealed two sources for this potential liquid. Rain water is one potential source. The rainwater may be present because the crates were left outside for significant periods before they were covered with a plastic tarp and overburden. The second source for the potential liquids is associated with capped process piping, process piping which was used in conjunction with the gloveboxes. Though all piping was drained (as thoroughly as possible) and capped before placement into the crates, it is difficult for the Laboratory to ensure there are no residual liquids remaining within the capped pipes. Therefore, crates must be handled on a case by case basis, but all crates will be checked for rainwater and drained of rainwater as necessary. After each crate is inspected to ensure crate integrity, the crate will be sent directly to the appropriate storage dome. Again, because it may be nearly impossible to ensure any particular crate has absolutely no liquids within it, all crates will be stored on additional containment areas when placed in the appropriate storage dome.

b. Drums

Steel drums will usually be retrieved by ~~the forklift with a custom boom/hoist/cage attachment. This device allows the forklift boom to extend across the stepped face of the stack to reach a drum in the top~~
(13) ~~layer and lift it into a protected, supported position while it is lowered to the floor. The device utilizes the normal hydraulic~~forklifts or a small crane. Drum retrieval will begin with a visual, in-place assessment of the drum integrity. The drum top, visible sides, and visible portions of the bottom rim will be inspected for corrosion, pitting, and rim separation. Drums that fail the visual inspection will be reinforced ~~power and control system on a forklift, supplemented by a small hydraulic hoist. Remote controls will allow the forklift operator and a technician next to the drum being retrieved to operate the hoist.~~

~~Drum retrieval will begin with an inspection of the drum on the stack. The forklift operator will then place the extended boom point over the drum, and a worker on the stack will attach a drum lifting device to the drum. The forklift operator will lift the drum and move the cage to a position where the~~
(14) ~~drum is encircled by a cage to prevent it from falling. The operator will then move the forklift back from the stack, and place the drum on the floor well out of the path of the operation. Another worker will then uncouple the drum lifting device, clean the dust and dirt from the drum using a HEPA filtered vacuum cleaner, and survey thoroughly for contamina~~and overpacked in situ before their removal from the stack. A radiological contamination swipe survey will be performed before moving the drum to determine whether removable contamination exists on the drum exterior.

If the drum appears to have integrity and a smear shows no removable surface contamination, the drum will be removed from the array using manual techniques and construction equipment. After the drum is safely in the drum staging area, dust and dirt will be removed from the drum using filtered vacuuming or manual cleaning, and a thorough radiological survey for contamination will be conducted. Should removable surface contamination be detected, worker protective measures will be evaluated and contamination-control procedures, such as vacuuming, fixation, or plastic wrapping, will be implemented before subsequent handling. A permanent bar code label containing the drum

identification number will be affixed to the drum after this cleaning and inspection. This drum identification number will be cross-referenced to the original drum identification number contained in the LANL TRU waste database.

(15) During this time, local ventilation will be drawing air from the foot of the stack and from the floor level where the drums are being placed. This local ventilation will supplement the ~~room (~~work area~~)~~ ventilation. The number of drums removed at one time will vary, but will average about 24 per day.

(16) ~~Damaged or severely corroded drums will be overpacked as early in the retrieval process as practical. The precise handling technique will vary according to the drum location, the extent of contamination (if any), and the physical characteristics of the drum contents. Drum overpacks will be assigned the same identification number as the drum they contain and labeled before they are transferred to the storage dome.~~

(17) ~~When corrosion is less severe and before the drum is moved, the drum wall thickness will be determined by an ultrasonic thickness gauge. The decision whether to overpack will be made on the basis of the remaining drum wall thickness. Although severely corroded drums will not require venting, overpacked drums will have lids that have a HEPA filter vent in place before overpacking operations begin with an absorbent between the 55 gallon drum and the overpack.~~

18) ~~———~~Drums that potentially contain liquids may be examined by real time radiography (RTR) after they are vented or after they are placed into storage. If liquids do appear in the RTR examination, these drums will be overpacked with an absorbent between the 55 gallon drum and the overpack. ~~If the RTR is not available or is not functioning correctly, d~~Drums that contain a waste matrix with a likelihood to contain free liquids will be overpacked with an absorbent between the 55 gallon drum and the overpack. Any drum either identified by the RTR as a container with free liquids or identified as a drum which contains a waste matrix with a probability to have free liquids will be stored within an area with additional containment inside the appropriate storage dome.

5. Drum Preparation

19) Drums received at the Drum Preparation Facility will be unloaded by forklift to the ground where they will be transferred onto multi-wheeled dollies or drum carts to be cleaned, inspected, surveyed for contamination and surface radiation levels, painted as necessary and/or vented as necessary. Each drum will be supplied with appropriate barcode and other identification labels. -Drums will then be sent to storage.

~~5.~~6. Drum-Venting System

(20) ~~The next step in the process (within the Retrieval Dome work area) is to vent the drums, as necessary,~~D~~d~~Drums which have been pre-identified through a database review as potentially containing an explosive gas mixture will be vented ~~as necessary~~ to ensure they do not contain an explosive mixture of gases in the headspace. Drums requiring venting will be placed one at a time, into the skid mounted Drum Venting System (DVS) where the drum lid will be punctured and a gas sample drawn. The explosivity of the gas mixture will ~~ill~~ be determined, and a HEPA-filtered vent will be installed. If a drum actually contains an explosive mixture, it will either be purged or simply allowed to aspirate until a

safe mixture is attained.All drums will be vented to meet the Waste Acceptance Criteria of the disposal facility as necessary.

7. Transportation

Retrieved waste crates and drums will be transported, as appropriate, to the Drum Preparation Facility, to storage, or from the Drum Preparation Facility to storage. ~~The next step in the process is to remove retrieved waste packages from the Retrieval Dome and transport them either to the Drum Preparation Facility or directly into storage.~~ Transport vehicles will be loaded in the rRetrieval ~~Dome's~~ work area. The equipment used to manipulate packages will usually be a forklift, rigged with either forks or a boom. ~~Crates and newly overpacked drums will be taken directly to storage, while all other drums will be taken to the Drum Preparation Facility.~~ The vehicles used to transport waste packages within TA-54 will be either stake bed trucks or trailers that have been selected to achieve the minimum lifting and handling requirements. Closed transport vehicles will not be necessary because adequate surge capacity at each point in the retrieval and storage process will ensure that the waste is not moved during inclement weather.

(21)

~~7. Drum Preparation~~

~~Drums received at the Drum Preparation Facility will be unloaded by forklift to the ground where they will be transferred onto multi-wheeled dollies to be cleaned, inspected, surveyed for contamination and surface radiation levels, and supplied with appropriate barcode and other identification labels. Cleaned drums will then be sent to storage.~~

(22)

8. Storage Operations

Within the storage domes~~.~~, the waste packages will be handled by common commercial equipment such as forklifts with drum lifting attachments, strongbacks, and slings. The forklifts will ~~normally be~~ either propane or ~~fueled although~~ diesel fueled, ~~equipment already on site will be used for assistance and backup as necessary~~. Other equipment in the storage enclosures will include an assortment of survey instruments, CAMs, eye wash stations and fire extinguishers.

(23)

Crates will be arranged in rows, one high and one wide, with at least 28 inches between rows to allow for inspection. 55-gallon drums of similar waste will be banded together in groups of four on ~~wooden~~metal pallets which are then stacked three high in rows at least 28 inches apart. Overpacked drums will receive similar treatment except that they will be placed on larger pallets and stacked only two high. Any container, from the TRU Pads, that has been confirmed to contain liquid will be segregated within the operating storage dome to an area of additional containment. Whenever waste packages are moved, the waste package identification numbers, their origin and destination, and package changes (overpack volume and/or dimensions) will be documented and used to update the TRU waste database.

ATTACHMENT 2

Attachment B
Remedial Action Plan

RATIONALE FOR PROPOSED CHANGES
MATRIX

TWISP-REMEDIAL ACTION PLAN (RAP)
REQUESTED REVISIONS AND RATIONALE

Change no.	Pg.	Section	Para-graph	Description of Change	Rationale
a1	4,6 and 8	B.A	Figures 2, 4 and 6	Change *"Asphalt Swales"* to *"Install Stormwater Runoff Controls"*	Various methods may be employed to control directional flow of stormwater which may include but not be limited to asphalt swales. See No. 2 below
1	11	B.1	3	Insert *"and a dry pipe fire protection system."*	Required for structures greater than 5000 sq. ft. by DOE Order 5480.7A, per DOE/UC contract.
2	12	B.2	1	Insert the phrase *"installation of stormwater runoff controls."*	Various methods may be employed to control directional flow of stormwater, which may include but not be limited to asphalt swales. All methods will conform with requirements of the LANL Stormwater Pollution Prevention Program Plan.
3	12	B.2	2	Clarify that power will be run to equipment at the retrieval site as necessary to support whatever equipment will be used in or near the retrieval site.	Flexibility in the placement of equipment for retrieval activity, as appropriate for the situation, is needed. During (at least) the initial phases of Pad 1 retrieval, the DVS can be operated more effectively in the Drum Preparation Facility (DPF) because of Retrieval Dome space limitations and a suggested change in the sequencing of any required drum venting operations (see no. 20 below).
4	12	B.2	3	Insert the phrase *"for retrieval of Pad 4 waste will then begin."* Insert additonal clarifying language and strike existing language accordingly.	Clarifying language
5	12	B.2	3	Clarify that equipment will be relocated to the other pads as necessary to support the retrieval.	Clarifying language adding flexibility to the operation.

TWISP-REMEDIAL ACTION PLAN (RAP)
REQUESTED REVISIONS AND RATIONALE

Change no.	Pg.	Section	Para-graph	Description of Change	Rationale
6	12	B.2	3	Insert the phrase *"installation of stormwater runoff controls."*	Various methods may be employed to control directional flow of stormwater, which may include but not be limited to asphalt swales. All methods will conform with requirements of the LANL Stormwater Pollution Prevention Program Plan.
7	12	B.2	4	Insert the phrase *"for retrieval of Pad 2 waste will then begin."*	Clarifying language
8	12	B.2	4	Strike discussion of ductwork and dome extensions for Pad 2. Insert language regarding stormwater runoff controls and equipment relocation as needed.	Clarifying language. Equipment will be relocated to the other pads as necessary to support the retrieval (see no. 5 above).
9	13	B.3	1	Revise first sentence as indicated. Revise following sentences to clarify that tuff will be removed using different types of earth moving equipment including, possibly, a vacuum truck	Clarifying language allowing flexibility to use different types of equipment for tuff removal, as appropriate for the situation, is needed. The RAP currently provides for exclusive use of the vacuum truck for tuff removal. Other industrial equipment has been proven to be quicker and more effective than the vacuum truck at removing tuff from the pads. Many of the larger tuff particles (>4 in. diameter) cannot be removed effectively using the vacuum truck. Project procedure documents for soil handling specify that radiological monitoring will be conducted continuously during the tuff removal. Any radioactively contaminated tuff fragments will be segregated from the other overburden and placed into B25 boxes for further management.

TWISP-REMEDIAL ACTION PLAN (RAP)
REQUESTED REVISIONS AND RATIONALE

Change no.	Pg.	Section	Para-graph	Description of Change	Rationale
10	13	B.4	1	Revise list of retrieval equipment to add several items of needed equipment.	Portable HEPA-filtered ventilation equipment , CAMs, and other monitoring equipment will be used at the working face as appropriate. Flexibility to use different types of equipment for waste package retrieval, as appropriate for the situation, is needed. The RAP currently provides for use of a custom forklift for waste package retrieval. Other industrial equipment has been proven,through testing by a certified technician, to offer equivalent or greater safety and effectiveness in this procedure.
11	14	B.4.a	1	Revise text to provide for repair, repackaging, or overpacking of damaged FRPs as appropriate.	Clarifying language provides greater flexibility. Some containers may not be amenable to overpacking. Sea-land metal containers will provide an effective alternative for repackaging some containers' contents that will enhance worker safety by reducing potential exposures.
12	14	B.4.a	2	Strike the term "*recent.*"	Clarifying language. The referenced interviews occurred prior to finalization of the RAP.
13	14	B.4.b	1	Revise description of drum retrieval to reflect use of different types of equipment in retrieval procedure.	Clarifying language providing for greater flexibility to use different types of equipment for waste package retrieval, as appropriate for the situation, is needed. The RAP currently provides for use of a custom forklift for waste package retrieval. Other industrial equipment has been proven to offer equivalent or greater safety and effectiveness in this application.
14	14	B.4.b	1,2,4,5 and 6	Revise discussion of drum retrieval to reflect updated and improved retrieval procedures.	Clarifying language. Retrieval procedures have been updated based on safety analysis, and value engineering analyses to improve the safety and quality of the retrieval operations.
15	15	B.4.b	3	Strike reference to "*room*"	Clarifying language.

Change no.	Pg.	Section	Para-graph	Description of Change	Rationale
16	15	B.4.b	4	Revise description of drum retrieval to reflect use of different types of equipment in retrieval procedure.	See no. 14 above.
17	15	B.4.b	5	Revise description of drum retrieval to reflect use of different types of equipment in retrieval procedure.	See no. 14 above.
18	15	B.4.b	6	Revise (insert and strikeout) references to use of RTR.	Clarifying language reflects updated retrieval procedure. Drums potentially containing liquids will be identified and managed as if containing liquids. The RTR will be employed in a later phase of activity, during the characterization and certification of wastes for disposal.
19	15	B.5(for-merly B.7)	1	Relocate and modify paragraph from current section B.7 describing DPF operations.	Clarifying language reflects updated and improved retrieval procedure and changes to process sequence. DPF operations were determined to be more appropriate at this stage of the retrieval process.
20	16	B.6(for-merly B.5)	1	Revise (insert and strikeout) references to DVS operations. Insert phrases "which have been *pre-identified through a database review as potentially containing explosive gas mixtures*" and "*All drums will be vented to meet the Waste Acceptance Criteria of the disposal facility as necessary.*"	Clarifying language reflects updated and improved retrieval procedure. Flexibility in the placement of equipment for retrieval activity, as appropriate for the situation, is needed. During (at least) the initial phases of Pad 1 retrieval, the DVS can be operated more effectively in the Drum Preparation Facility because of Retrieval Dome space limitations. The DVS is capable of being moved to where it is needed on an as needed basis. Specific drums identified as potentially containing hydrogen gas will be vented through use of the DVS immediately following retrieval.

TWISP-REMEDIAL ACTION PLAN (RAP)
REQUESTED REVISIONS AND RATIONALE

Change no.	Pg.	Section	Para-graph	Description of Change	Rationale
21	16	B.7	1	Revise text to designate possible transportation scenarios.	Clarifying language reflects more accurately the possible transportation scenarios.
22	16	(for-merly B.7)	1	Strikeout paragraph from current section B.7 describing DPF operations.	Relocate and modify paragraph (see no. 19 above).
23	16	B.8	1,2	Revise text to reflect updated storage procedures.	Clarifying language reflects updates to storage procedures. Available diesel fueled equipment, with air scrubbers and smaller fuel tanks, will be used for waste package handling. Metal pallets will be used to support waste packages.

ATTACHMENT 3

Attachment B
Remedial Action Plan

ENTIRE CLEAN COPY
INCLUDING PROPOSED CHANGES

14. Complete Construction of Retrieval Dome over Pad 1; Complete Construction of Storage Domes for Pad 1 waste

15. Personnel Training/Operational Readiness Review

16. Complete Retrieval Operations on Pad 1

17. Complete Construction of Retrieval Dome Over Pad 4; Complete Construction of Storage Domes for Pad 4 waste.

18. Complete Retrieval Operations on Pad 4.

19. Complete Construction of Retrieval Dome over Pad 2; Complete Construction of Storage Dome over Pad 1.

20. Complete Construction of Storage Dome over Pad 4.

21. Complete Retrieval Operations on Pad 2.

22. Complete Salvage of Retrieval Equipment and Retrieval Dome.

1) The retrieval of waste from TRU Pads 1, 2 and 4 is divided up into two projects- The TRU Waste Retrieval Dome Project and TRU Waste Temporary Storage Dome Project.

Attachment B

Remedial Action Plan

The following sections present listed actions and a phased plan necessary to retrieve TRU radioactive and TRU mixed waste from TRU Pads 1, 2 and 4 and place into inspectable storage. Because the Safety Analysis Report, which is being prepared for this remedial action, is not final, and because the RCRA Part B Permit Application, and the Facility Final Design are currently being reviewed by NMED, this plan may have to be modified to ensure:

- worker and public safety
- protection of the environment
- the most safe and efficient method is used to retrieve the waste
- compliance with State requirements

Listed Actions

1. Establish site specific environmental surveillance program.
2. Install high volume air samplers.
3. Prepare and complete ES&H documentation, as necessary.
4. Procure Special Equipment for Retrieval and Storage operations.
5. Prepare Preliminary Safety Analysis Report.
6. Prepare Final Safety Analysis Report.
7. Design Upgrade to existing Drum Prep Facility
8. Complete Final Design for TRU Waste Retrieval Dome Project[1].
9. Complete Final Design for TRU Waste Temporary Storage Dome Project [1].
10. Complete Design of Drum Vent System.
11. Prepare Detailed Operating Procedures.
12. Fabricate and Test Drum Vent System.
13. Procure Contractor.

The Retrieval Operation

A. Construction and Retrieval Phasing

The retrieval of waste from TRU Pads 1, 2 and 4 is organized into four construction phases. After each of the first three construction phases, waste is retrieved from TRU Pads 1, 4, and 2, respectively. The fourth construction phase is necessary to salvage equipment, and disassemble the retrieval dome. Each construction phase is divided up into two separate projects; the Retrieval Dome Project and the Storage Dome Project.

Project site activities will begin with Construction Phases I-R and I-S (-R refers to the Retrieval Dome Project and -S refers to the Storage Dome Project). Activities within Phases I-S and I-R are clearly identified in Figures 1 and 2.

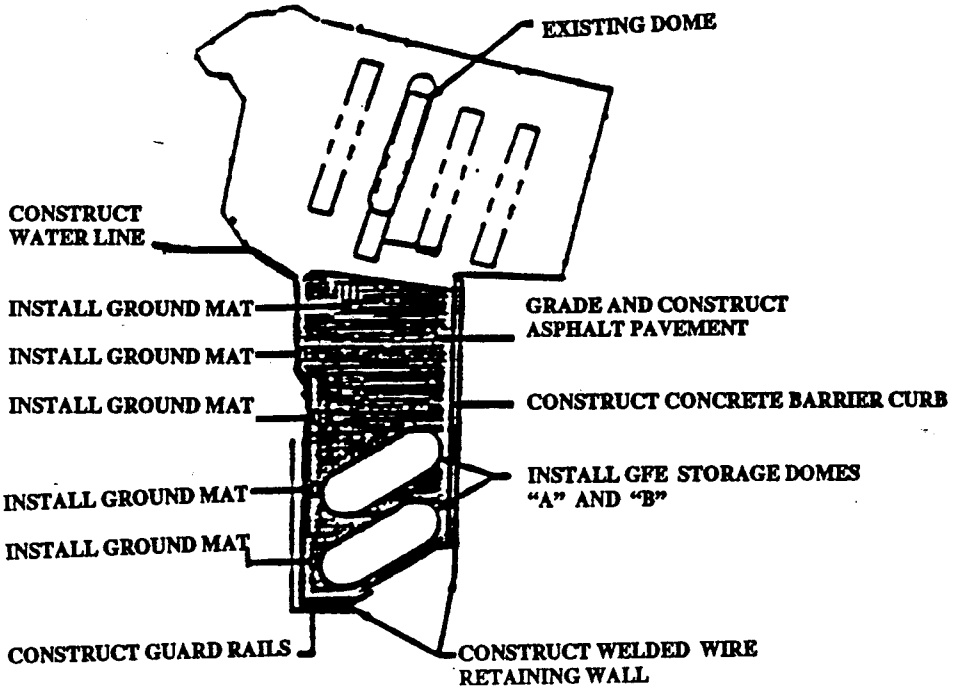

Figure 1. Construction Phase I-S

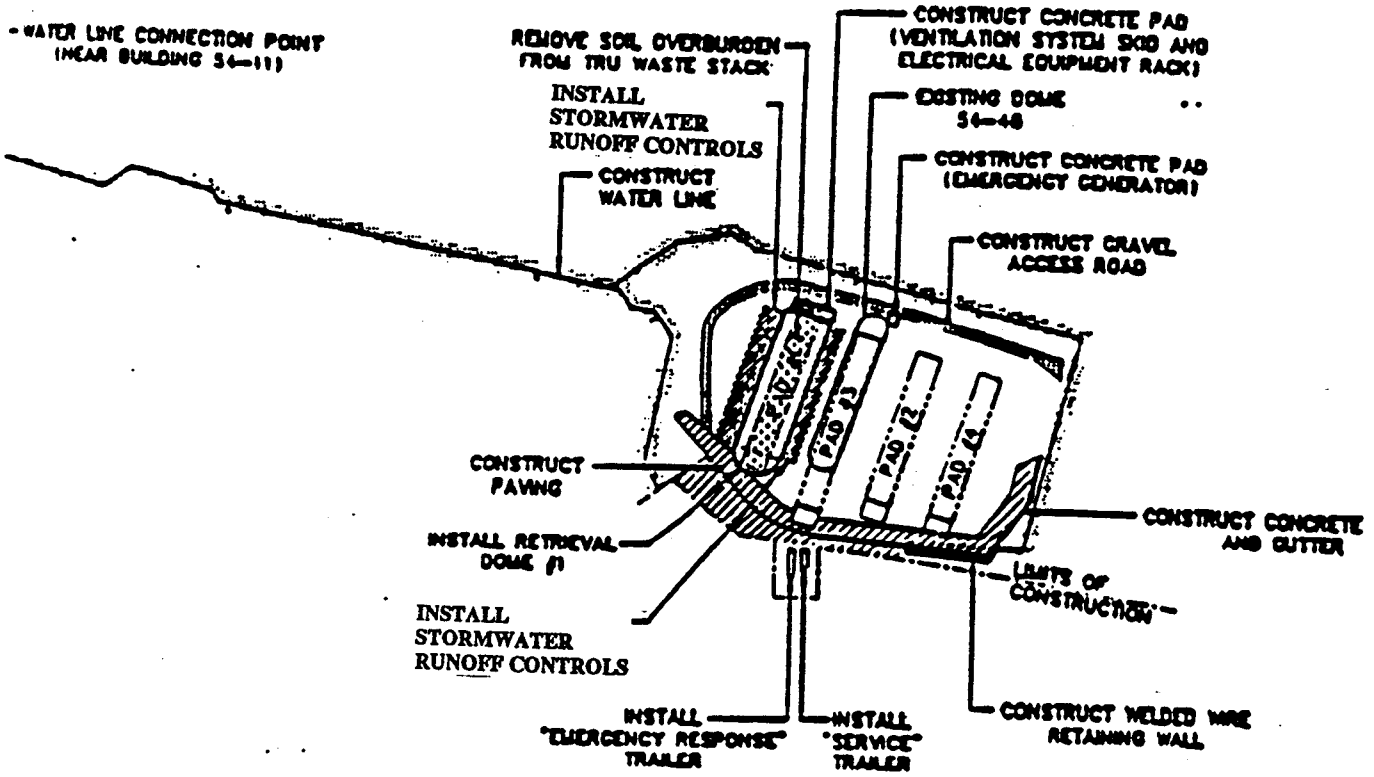

Figure 2. Construction Phase I-R

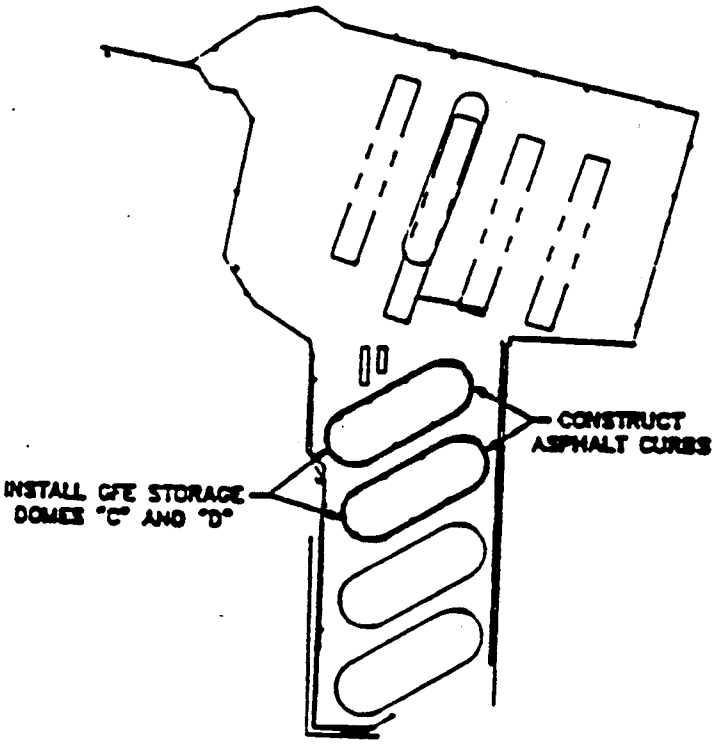

Figure 3. Construction Phase II-S

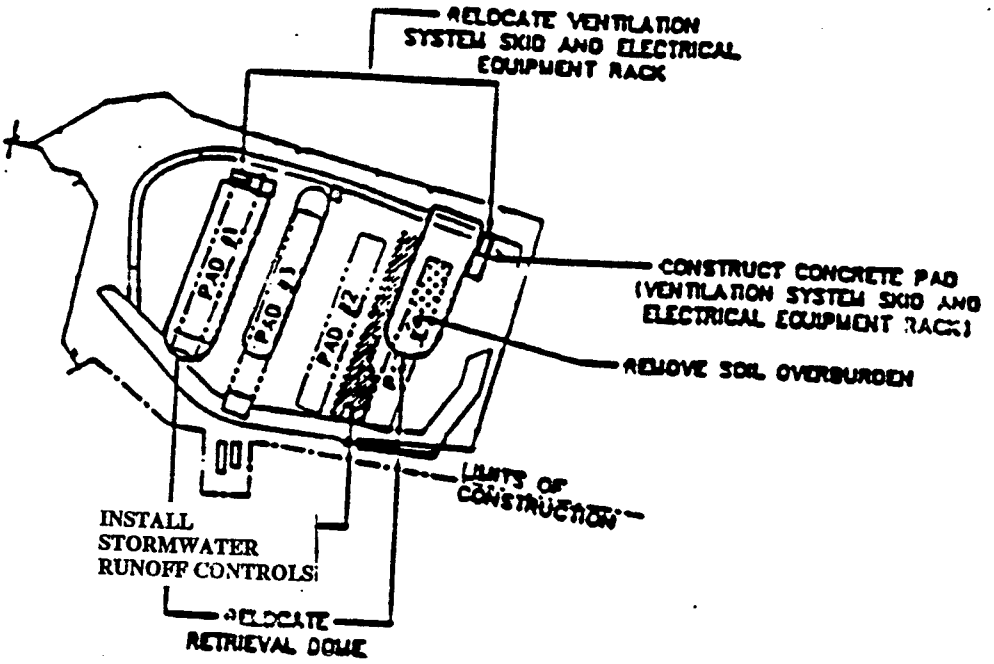

Figure 4. Construction Phase II-R

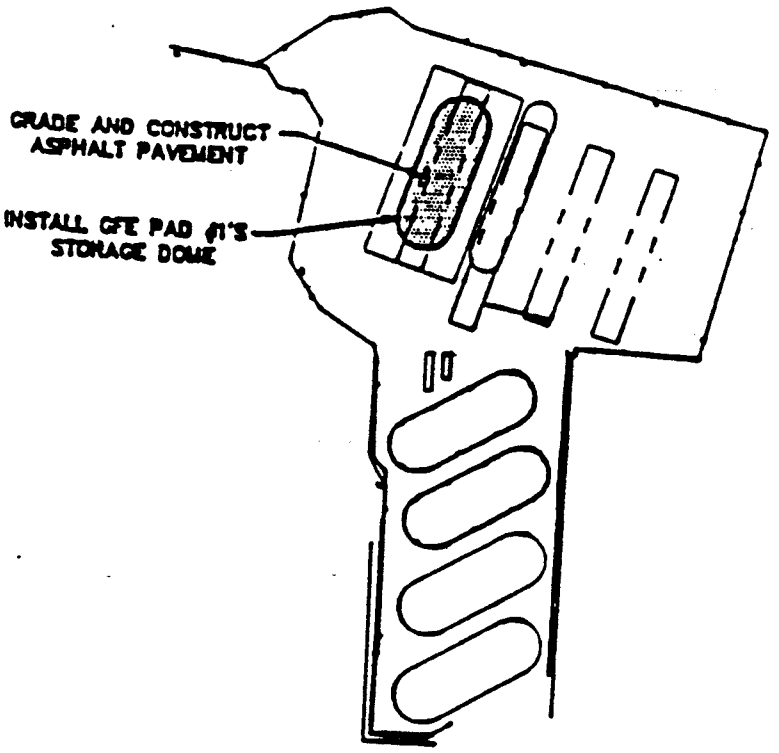

Figure 5. Construction Phase III-S

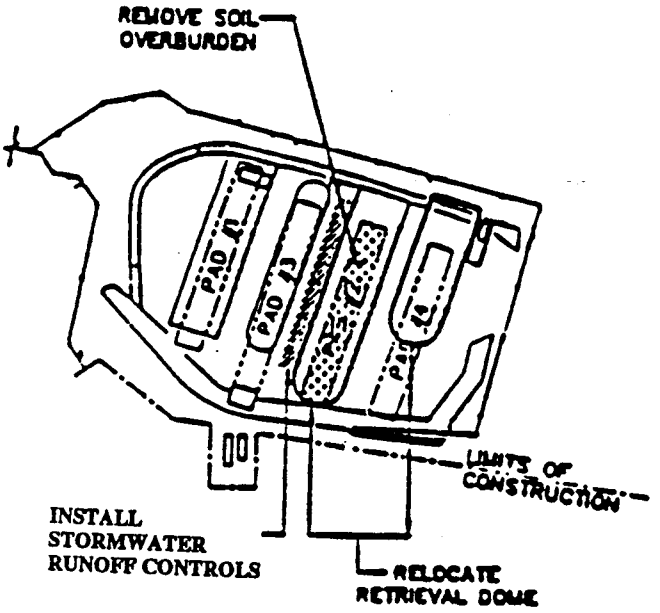

Figure 6. Construction Phase III-R

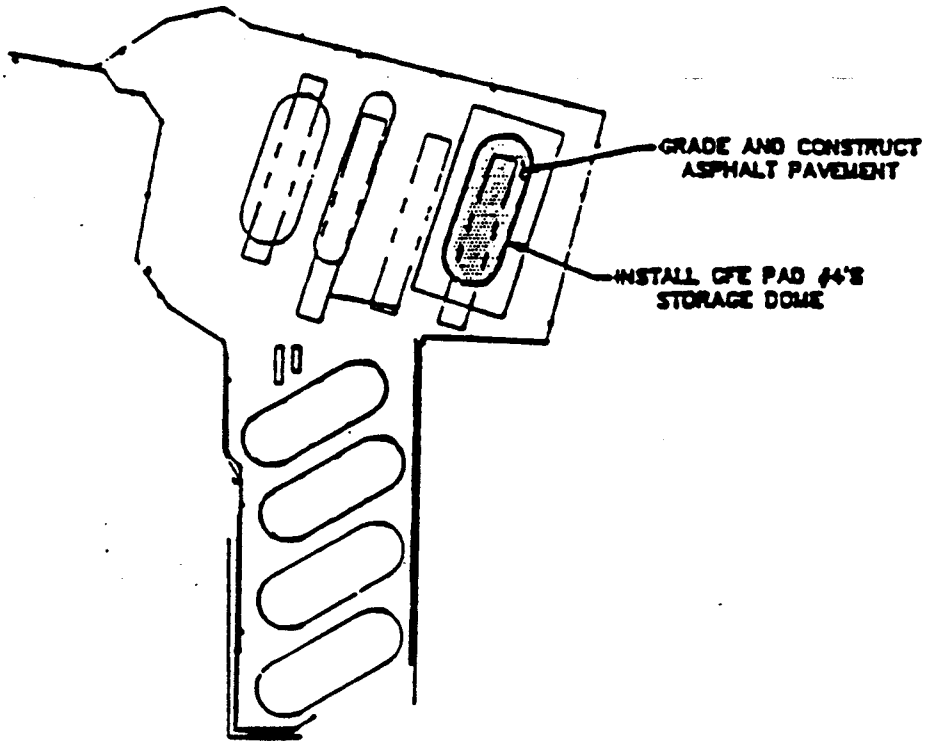

Figure 7. Construction Phase IV-S

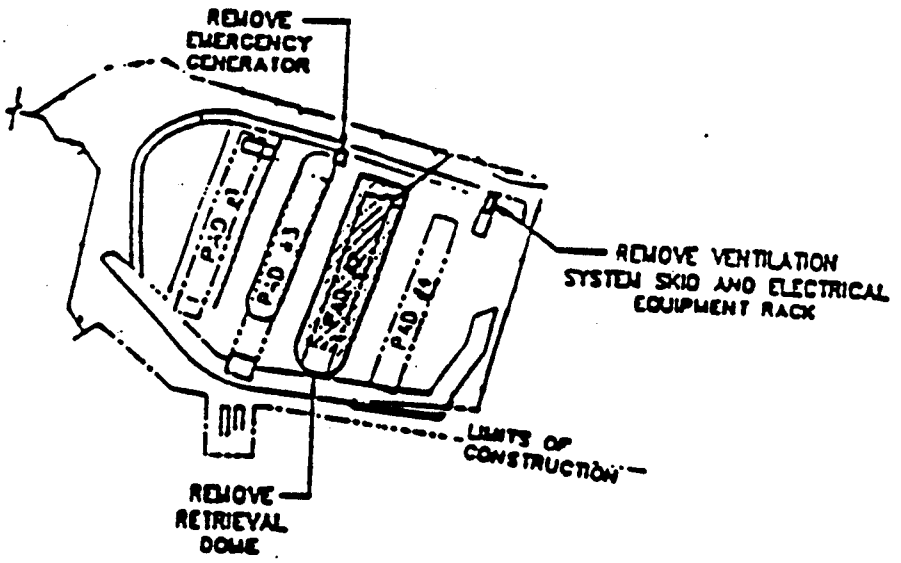

Figure 8. Construction Phase IV-R

Attachment B
Remedial Action Plan

B. Detailed Description

1. Storage Domes

As Figure 1 shows, Construction Phases I-S include considerable site work. The surface of LLW Pits 1 and 3 (just south of the TRU pads where the retrieval operation will be executed) is not level enough to permit construction of the four new storage domes without grading. Because the site is over old waste disposal pits, grading must be accomplished primarily by fill and compact methods. The soil surface will be surveyed to determine whether radioactive contamination exists from previous disposal operations. If radiation above background levels is detected, the areas of contamination will be handled appropriately. Clean fill will be obtained from the spoils pile of crushed tuff created by excavation of LLW disposal pits. After compaction and grading, the asphalt pad will be laid.

A primary reason for the large amount of site work is to ensure that stormwater discharge requirements under the Laboratory's National Pollution Discharge Elimination System (NPDES) general permit are met and best management practices for stormwater runoff control are utilized.

During the latter part of Construction Phases I-S and I-R, Storage Domes A and B will be erected at the south end of the completed asphalt pad. Each of the planned storage domes is a tension support structure with fabric walls and aluminum supports. Asphalt curbs will then be installed around the inside perimeter of each of the domes. Power, communication systems, and fire protection (hydrants and a dry pipe fire protection system) services will be extended to the domes. Finally, prior to waste transfer into the new domes, ambient air monitoring will be conducted inside the dome to establish "background" conditions.

Construction Phase II-S includes erecting Storage Domes C and D on the asphalt pad. Asphalt curbs will also be constructed around the inside perimeter of these domes. As necessary, utilities will again be extended to the domes.

During Construction Phase III-S, some additional site work and erection of Pad 1's Storage Dome's will occur. Additional asphalt will be added to both east and west sides of the present Pad 1. This site work will allow Pad l's Storage Dome to fit on the Pad 1. As with the previous domes, an asphalt curb will be present around the inside perimeter of the dome.

Similar to Construction Phase III-S, Construction Phase IV-S includes additional site work before Pad 4's New Storage Dome can be constructed. Similar to Pad 1, asphalt will have to be added to both east and west sides of Pad 4. The Laboratory fully expects Pad l's and Pad 4's asphalt pad to be in excellent condition. If the asphalt is not in excellent condition, that is if 30% or more of the asphalt pad is degraded, the entire asphalt pad will be replaced. In any case, any damaged portions of asphalt will be repaired.

2. Retrieval Dome

Construction Phase I-R also has a substantial amount of site work most of which is focused around Pad 1. The site work includes a water line installation, asphalt access paving along south edge of the site, extension of electrical power, installation of stormwater runoff controls, removal of the majority of the tuff cover over Pad 1 and erection of the Retrieval Dome over Pad 1. All tuff cover will not be removed because it is necessary to leave minimal cover of soil on top of the stack to provide weather protection and a fillet of tuff around the perimeter to support and stabilize the stack of waste containers. As appropriate, the tuff will be screened for radionuclide constituent contamination. Clean tuff removed from the pad will either be taken to the current LLW disposal pit for use as backfill or used as fill for Construction Phase I-S. Contaminated soil will be handled as appropriate.

Once site preparation for the Retrieval Dome is complete and the retrieval dome is erected, equipment and structural accessories necessary to ensure the Retrieval Dome is functional will be installed. The HEPA-filtered exhaust system and associated ductwork will be installed and attached to the skid-mounted exhaust blower and filter bank. An emergency power system (EPS) will be placed to the north of Pad 1. Though the EPS should not be necessary because work will stop if power is lost, it will provide power during power outages, or other emergencies. Two partitioning curtains will be hung from the dome frame to segregate the work area from the remainder of the enclosure and each curtain will be moved along the pad as waste is being removed. Personnel doors for emergency egress will be present along both sides of the work area. Electrical power will be extended into the Retrieval Dome to power continuous air monitors (CAMs), local and general ventilation systems, and the drum venting system, as needed. Support trailers will be located near Pads 1, 2 and 4.

Once the waste from Pad 1 is retrieved, Construction Phase II-R for retrieval of Pad 4 waste will then begin. The Retrieval Dome will remain available for interim storage of wastes during and after retrieval operations. This phase includes preparatory site work at Pad 4, equipment relocation as needed, and installation of stormwater runoff controls).

After retrieval operations at Pad 4 are complete, Construction Phase III-R for retrieval of Pad 2 waste will then begin. Similar to Construction Phase II-R, this phase includes preparatory site work around Pad 2 including installation of stormwater runoff controls and equipment relocation as needed. Finally, after retrieval operations are finished on Pad 2, Construction Phase IV-R will ensure that all equipment is either salvaged or disposed as appropriate.

3. Soil Removal

As retrieval operations progress on each pad, the tuff over the working face of the stack will be removed by various pieces of earth-moving equipment and supplemented by hand-loading tuff into wheelbarrows as needed.

The fillet of tuff across the front of the stack and that which extends along the sides near the working face will also be removed by various pieces of earth-moving equipment and hand-loading if needed. When the fillet has been dropped below the top row of waste packages, the crates will be otherwise supported until the working face has been brought into a stable, stepped configuration. As the working face of the stack retreats, the soil removal operation will be repeated several times.

When all of the tuff has been removed from the working face, an air sample will be drawn from within the plywood and plastic cover. Along with the continued monitoring throughout the entire project, this sample will help Health Physics (HPT) and Industrial Hygienist (IHT) Technicians determine the extent of respiratory protection required during the removal of the plywood and plastic sheeting. After tuff removal, the plastic and plywood cover material will be disposed as appropriate.

4. Waste Package Retrieval

After the tuff has been removed from the working face and unnecessary dirt removal equipment removed from the working area, waste package retrieval can begin. Retrieval equipment will include forklifts, a small crane, a front end loader, CAMs, a HEPA-filtered vacuum cleaner, HEPA-filtered ventilation system, and hand held tools.

The waste package configuration within the stack can vary, but the most common arrangement consists of crates stacked along the sides and ends of individual storage cells, with drums stacked in the center. Crates are seldom stacked more than two high (with the largest crates on the bottom), and drums are commonly stacked four high. Waste package data, including an identification number, radioisotopic data, LANL waste content code, waste generator, weight, and the date the package was sealed are readily available from the TRU waste database. The database information will be available at the work site so that workers will know the nature of the waste in each package before it is handled.

a. Crates

Because FRP crate construction was not standardized when the waste was packaged, crate handling during waste retrieval cannot be standardized. The exact retrieval method used will be determined on a case-by-case basis. One method for crate retrieval may be to remove all waste packages around the individual crate, attach a long section of horizontally suspended I-beam (strongback) with fabric slings (which are spread to prevent crushing the top of the container), and lift the crate by strong back with a small crane or a forklift. An alternate method for FRP crate removal may involve using a large capacity forklift. If the bottom of the crate is significantly degraded, a metal sheet can be slid under the crate and the slings will pick the crate up from this new metal base. All such damaged crates will be repaired, overpacked, or repackaged before they leave the work area by placing the contents of the damaged container in a sea-land metal container.

Interviews (October, 1993) with technicians, who worked on the TRU Pads in the late 1980's, revealed that some crates may contain liquids. The interviews revealed two sources for this potential liquid. Rain water is one potential source. The rainwater may be present because the crates were left outside for significant periods before they were covered with a plastic tarp and overburden. The second source for the potential liquids is associated with capped process piping, process piping which was used in conjunction with the gloveboxes. Though all piping was drained (as thoroughly as possible) and capped before placement into the crates, it is difficult for the Laboratory to ensure there are no residual liquids remaining within the capped pipes. Therefore, crates must be handled on a case by case basis, but all crates will be checked for rainwater and drained of rainwater as necessary. After each crate is inspected to ensure crate integrity, the crate will be sent directly to the appropriate storage dome. Again, because it may be nearly impossible to ensure any particular crate has absolutely no liquids within it, all crates will be stored on additional containment areas when placed in the appropriate storage dome.

b. Drums

Steel drums will usually be retrieved by forklifts or a small crane. Drum retrieval will begin with a visual, in-place assessment of the drum integrity. The drum top, visible sides, and visible portions of the bottom rim will be inspected for corrosion, pitting, and rim separation. Drums that fail the visual inspection will be reinforced and overpacked in situ before their removal from the stack. A radiological contamination swipe survey will be performed before moving the drum to determine whether removable contamination exists on the drum exterior.

If the drum appears to have integrity and a smear shows no removable surface contamination, the drum will be removed from the array using manual techniques and construction equipment. After the drum is safely in the drum staging area, dust and dirt will be removed from the drum using filtered vacuuming or manual cleaning, and a thorough radiological survey for contamination will be conducted. Should removable surface contamination be detected, worker protective measures will be evaluated and contamination-control procedures, such as vacuuming, fixation, or plastic wrapping, will be implemented before subsequent handling. A permanent bar code label containing the drum identification number will be affixed to the drum after this cleaning and inspection. This drum identification number will be cross-referenced to the original drum identification number contained in the LANL TRU waste database.

During this time, local ventilation will be drawing air from the foot of the stack and from the floor level where the drums are being placed. This local ventilation will supplement the work area ventilation. The number of drums removed at one time will vary, but will average about 24 per day.

Drums that potentially contain liquids may be examined by real time radiography (RTR) after they are vented or after they are placed into storage. If liquids do appear in the RTR examination, these drums will be overpacked with an absorbent between the 55 gallon drum and the overpack. Drums that contain a waste matrix with a likelihood to contain free liquids will be overpacked with an absorbent between the 55 gallon drum and the overpack. Any drum either identified by the RTR as a container with free liquids or identified as a drum which contains a waste matrix with a probability to have free liquids will be stored within an area with additional containment inside the appropriate storage dome.

5. Drum Preparation

Drums received at the Drum Preparation Facility will be unloaded by forklift to the ground where they will be transferred onto multi-wheeled dollies or drum carts to be cleaned, inspected, surveyed for contamination and surface radiation levels, painted as necessary and/or vented as necessary. Each drum will be supplied with appropriate barcode and other identification labels. Drums will then be sent to storage.

6. Drum-Venting System

Drums which have been pre-identified through a database review as potentially containing an explosive gas mixture will be vented to ensure they do not contain an explosive mixture of gases in the headspace. Drums requiring venting will be placed one at a time, into the skid mounted Drum Venting System

(DVS) where the drum lid will be punctured and a gas sample drawn. The explosivity of the gas mixture will be determined, and a HEPA-filtered vent will be installed. If a drum actually contains an explosive mixture, it will either be purged or simply allowed to aspirate until a safe mixture is attained. All drums will be vented to meet the Waste Acceptance Criteria of the disposal facility as necessary.

7. Transportation

Retrieved waste crates and drums will be transported, as appropriate, to the Drum Preparation Facility, to storage, or from the Drum Preparation Facility to storage. Transport vehicles will be loaded in the retrieval work area. The equipment used to manipulate packages will usually be a forklift, rigged with either forks or a boom. The vehicles used to transport waste packages within TA-54 will be either stake bed trucks or trailers that have been selected to achieve the minimum lifting and handling requirements. Closed transport vehicles will not be necessary because adequate surge capacity at each point in the retrieval and storage process will ensure that the waste is not moved during inclement weather.

8. Storage Operations

Within the storage domes, the waste packages will be handled by common commercial equipment such as forklifts with drum lifting attachments, strongbacks, and slings. The forklifts will be either propane or diesel fueled. Other equipment in the storage enclosures will include an assortment of survey instruments, CAMs, eye wash stations and fire extinguishers.

Crates will be arranged in rows, one high and one wide, with at least 28 inches between rows to allow for inspection. 55-gallon drums of similar waste will be banded together in groups of four on metal pallets which are then stacked three high in rows at least 28 inches apart. Overpacked drums will receive similar treatment except that they will be placed on larger pallets and stacked only two high. Any container, from the TRU Pads, that has been confirmed to contain liquid will be segregated within the operating storage dome to an area of additional containment. Whenever waste packages are moved, the waste package identification numbers, their origin and destination, and package changes (overpack volume and/or dimensions) will be documented and used to update the TRU waste database.

COMPLIANCE SCHEDULE: Attachment "C" (10/25/93)

Complete[1]	LANL[2]	Submit Preliminary Construction Design Criteria for storage domes 1, 4, A, B, C, and D (hereinafter referred to as Area G TRU Storage Units).
Complete	NMED	Issue initial comments for design document submitted 07/01/93.
Complete	LANL	Submit Part B application, including Title II (Definitive Design) documentation, for Area G TRU Storage Units.
Complete	NMED	Conclude Administrative completeness Review of the permit application.[3] Issue a Notice of Deficiency, if necessary.
11/05/93	LANL	Submit a request to the Secretary or Designee for permit modification.
11/15/93	LANL	Submit a complete response to NMED's Notice of Deficiency, if issued, for the Administrative Completeness Review.
12/13/93	LANL	Hold a public meeting regarding the permit modification request.
12/17/93	NMED	Conclude initial Technical Completeness Review of the permit application. Issue a Notice of Deficiency, if necessary.
01/21/94	LANL	Submit a complete response to NMED's Notice of Deficiency, if issued, for initial Technical Completeness Review.
02/04/94	NMED	Conclude final Technical Completeness Review of the permit application.
02/07/94	NMED	Either approve the modification request, with or without changes, and modify the permit accordingly; deny the modification request; require that the modification request follow procedures for Class III modifications; or notify LANL that the Secretary or Designee will decide on the request within the next thirty days.[4]

02/18/94	LANL	Submit additional information as requested by NMED on 02/07/94.
03/08/94	NMED	Secretary or Designee issues final decision on permit modification.
09/30/98	LANL	Complete Pad #1 Retrieval.
09/30/2000	LANL	Complete Pad #4 Retrieval.
[Effective Date of Consent Order] /2003[5]	LANL	Complete pad[2] retrieval and have all wastes from Area G hazardous waste storage Pad#s 1, 2 and 4 placed into Area G TRU Storage Units.

Notes

1. The first milestones predate the agreement and have been accomplished.
2. For the purposes of this Compliance Schedule, "LANL" means the respondents, the Regents of the University of California and the Department of Energy.
3. For the purposes of this Compliance Schedule, "Permit Application" means only those portions related to the Area G TRU Storage Units.
4. In the event that a determination is made that it is necessary to follow Class III procedures, the schedule shall be extended according to regulation to account for the additional time required to comply.
5. See Consent Agreement "A" (Secretary's Final Order).