START

0031471

9308137

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 4, 1993

Mr. Lee Michael
Westinghouse Hanford Company
740 Stevens Center #MS H6-08
P.O. Box 1970
Richland, WA 99352

Dear Mr. Michael:

Re: Entry of Site Visit Report to Administrative Record
224-T TRUSAF (S-2-2, M-20-23)

This letter transmits the Washington State Department of Ecology's request to enter the above referenced document to the 224-T Transuranic Waste Storage and Assay Facility Unit, Resource Conservation & Recovery Act (RCRA) Administrative Record. Enclosed is a copy of the report. If you are unable to enter the document to the administrative record, please notify me, and I will pursue the entry effort at the unit managers' meeting.

If you or your staff have any questions concerning this request, please contact me at (509) 736-3034.

Sincerely,

Alisa D. Huckaby
Nuclear and Mixed Waste Management Program

AH:sl
Enclosure: 324-T TRUSAF Site Visit Report

cc: (without enclosures)
Cliff Clark, DOE
Dan Saueressig, WHC
Dan Duncan, EPA
Doug Sherwood, EPA

OCT 1993
RECEIVED
EDMC

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bcc: Dave Nylander, Ecology
Tom Tebb, Ecology
Moses Jaraysi, Ecology

94130932.0003

224-T Transuranic Waste Storage and Assay Facility (TRUSAF)
(Group # S-2-2, Milestone M-20-23)
September 14, 1993, Site Visit Report by Alisa D. Huckaby

On September 14, 1993, Washington State Department of Ecology (Ecology) representatives Jerry Hensley, Jeanne Wallace, Casey Ruud, and myself toured the 224-T TRUSAF unit. During the tour, Ecology representatives were accompanied by Nancy Shoemaker (WHC), Matt LaBarge (WHC), Jerry Todd (WHC), Kent McDonald (WHC), Roger Szelmeczka (USDOE), and Kevin Kline (USDOE). Primarily, Nancy Shoemaker conducted the tour, but Kent McDonald provided information regarding the Part B Permit Application, Matt LaBarge provided information about the Backlog Wastes, and Jerry Todd provided information on operations.

Ecology representatives "WRAMed" (Westinghouse Radiation Area Management system for gaining access to the facility) in from approximately 12:30 - 12:55 p.m. at a WRAM station located in trailer number 271 in the 200 West Area. Ecology representatives then drove to the 224-T TRUSAF unit, donned hard hats and safety glasses, and entered the first floor of the building at the far northwest entrance. The group (including WHC and DOE representatives) progressed south past the elevator and proceeded to the south entrance of the building. This area, shown as "transuranic mixed waste initial storage" and "receiving area" on Figure 2-3 (attached) is used to unload, receive, and initially "store" newly received waste. At this time, there were approximately 70 drums stored in this area, about 50 of which were Backlog Waste drums. Shoemaker and LaBarge explained to Ecology representatives that a pilot project with the Backlog Waste drums was being conducted to develop a waste analysis work plan for which Real Time Radiography (RTR) and assaying techniques would be utilized. It was also explained that the pilot project consisted of "assaying" approximately 1400 Backlog Waste drums within the next year. It was described that an average time period of one to seven days represented the time required to assay and x-ray a Backlog Waste drum from the receipt to the return of the drum. While in this area, the attached photographs, numbered 1, 2, 3, and 4, were taken.

The group proceeded north to the area housing the real-time radiography x-ray system, (shown on attached Figure 2-3). While in this area, photographs numbered 5 and 6 were taken. While in this area, Shoemaker explained that in the future, there will not be drums located in this area due to the x-ray equipment. Shoemaker further explained that the drums were located in this area temporarily while floor sealants were being tested in one of the storage arrays. While in the x-ray radiography room, two continuous airborne monitors (CAMs) were noted. Shoemaker explained that one of the CAMs was an alpha CAM and the other was a beta CAM. Shoemaker further explained that the alpha CAM was for the transuranic wastes and the beta CAM was for the backlog wastes.

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From the x-ray radiography room, the group proceeded north to the transuranic waste assayer (TWA) room shown on attached figure 2-3. While in this room, photographs numbered 7, 8, and 9 were taken. While in this room a circular pattern (approximately two feet in diameter) was noted in the concrete (see photograph number 8). A second circular pattern (approximately six inches in diameter) was also noted in this room located near the corner of a rectangular pattern which appeared to be slightly lower than the surrounding concrete (see photo number 9).

The group then proceeded to the northern-most end of the building where several storage modules were noted (shown as modules numbered 2, 3 and 4 on attached Figure 2-3). Within this area, 1989 waste accumulation dates were noted on some of the hazardous waste labels. Shoemaker explained that the facility contained drums which were shipped to 224-T TRUSAF of which could not be accepted or certified because of limitations ralated to the x-ray radiographic techniques utilized and the certification criteria imposed by the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, where the waste is proposed to be disposed. LaBarge further explained that since the drums were over 90 days old, they could not be shipped back to the generator.

The group then proceeded to the second floor at the south end of the building. The area is shown on Figure 2-4 as the shaded area designated for "transuranic mixed waste as designated by supervisor." Within this area, one area, approximately 20' X 20' and marked with a line of tape, was labelled "oxidizers" (see attached photograph number 11). Directly adjacent, was an area labelled "satellite accumulation" (see attached photograph number 12). In this same room, there were areas with signs stating "acids, return to generator," etc. Photograph number 13 was taken of drums stored in one such open array module. While in this area, it was noted by Ruud, that one drum located in a "return to generator acids" module was not labelled with a hazardous waste label, although it had a "corrosive" label facing the wall. Photograph number 15 was taken of this drum and Ruud requested a copy of the documentation for this drum which was in a plastic envelope on top of the drum. Shoemaker provided a copy (copy attached). Also while in this area, a rectangular shaped patch was noted beneath the satellite accumulation drum (see photograph number 12). Shoemaker and McDonald explained that a sealant was being "tested." Shoemaker further explained that the sealant selected for upgrading the secondary containment would be grey in color rather than the brown color sealant tested in the satellite accumulation area. Also while in this room, Hensley and Wallace noted ceiling cracks which appeared to be discolored as though indicating leakage (see attached photograph number 14).

The group then proceeded north to the next room (shown on Figure 2-4 as unshaded portion with open array modules numbered 2-1 through 2-9). While in this room, additional discolored ceiling cracks were noted. Photographs numbered 16, 17, 18, 19, and 20 were taken in this room. The storage arrays (2-1 and 2-2) at the northern-most end of the building contained drums with higher radiation readings.

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Shoemaker explained that many of the drums in this area were listed as awaiting shipment to WIPP in New Mexico.

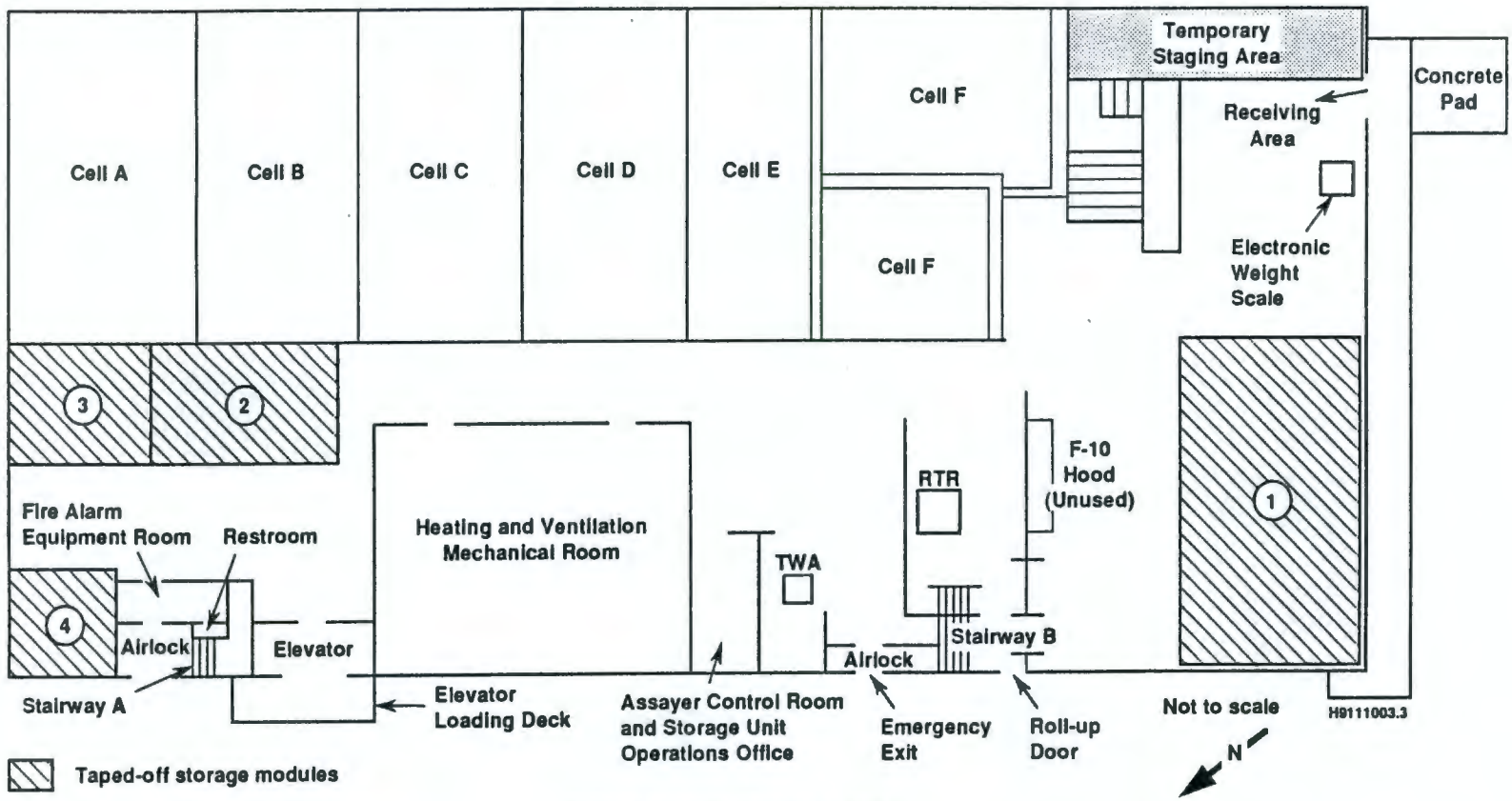
The group then proceeded to the third floor. Photographs 21, 22, 23, and 24 were taken in this area. On the northern wall, south of the elevator, photographs numbered 23 and 24 were taken of which show peeling paint and associated discoloration. While in this area, Shoemaker explained that a new roof had been put on the facility approximately two years ago. When asked about roof repairs, Shoemaker further explained that she was aware of three leaks since the new roof was put in place, but that each leak had been repaired immediately upon identification.

The group returned to the first floor where the elevator which is utilized to transport drums to the different floors was noted. Photograph number 25 was taken of the elevator.

Prior to being radiologically "surveyed out," McDonald explained that plans were progressing to enter the radiologically contaminated process cells B and F (shown on attached Figure 2-3) on September 28 or 29, 1993. Ecology representatives left the facility at approximately 2:00 p.m.

Enclosures: Photographs Numbered 1 Through 25
Photograph Log
Figures 2-3, 2-4, and 2-5
Documentation For Drum # 89-234

94130931.0086



Taped-off storage modules

TWA = transuranic waste assayer.

RTR = real-time radiography x-ray system.

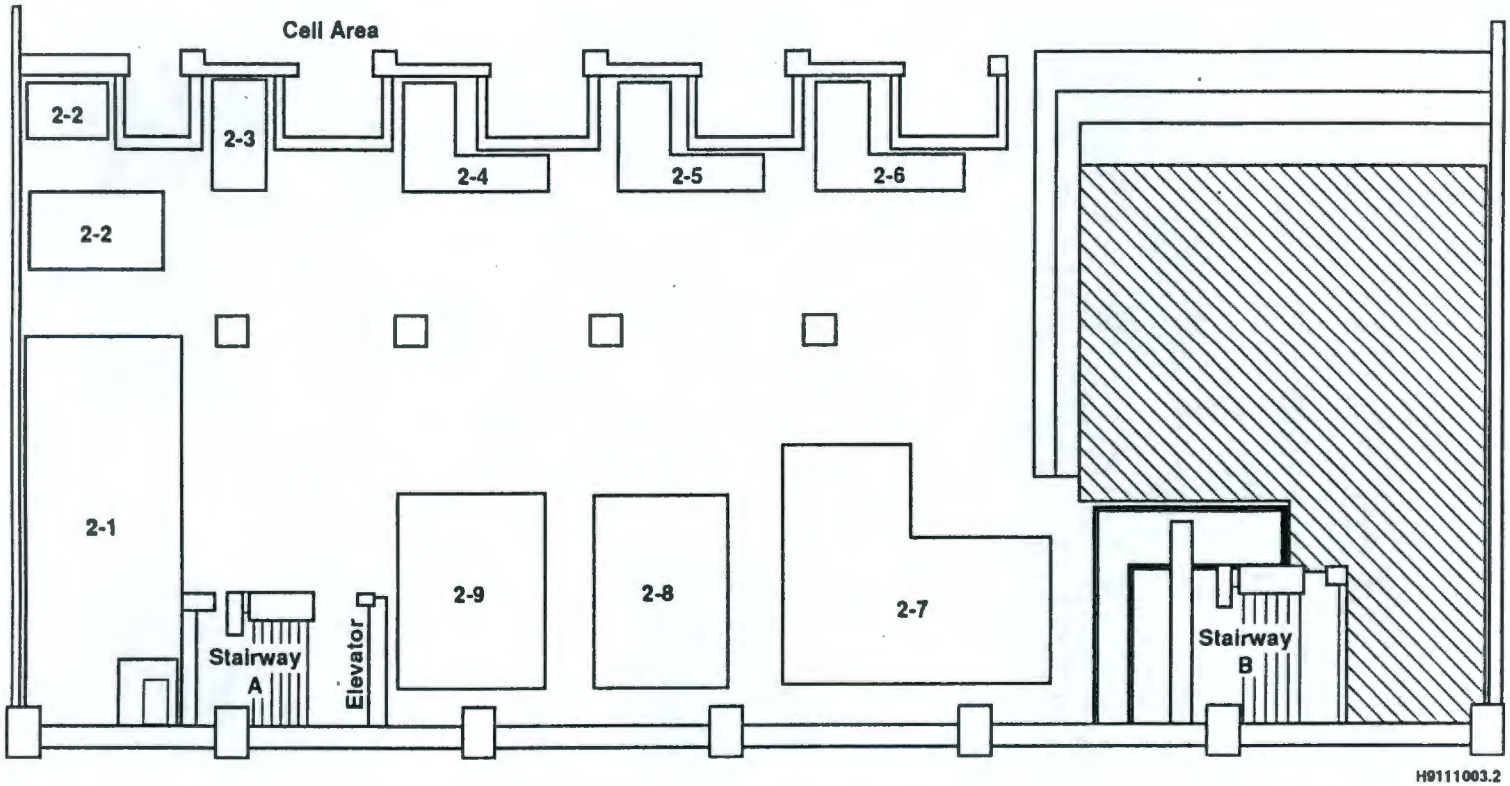
Notes: Storage modules are not enclosed rooms.

Refer to Drawing H-2-71704 in Appendix 4A for detailed building layout.

Storage modules (flexible in size):

1. Transuranic mixed waste initial storage
2. Transuranic waste to go upstairs
3. Low-level waste
4. Return to offsite generator or onsite generating unit

Figure 2-3. 224-T Transuranic Waste Storage and Assay Facility First Floor Plan.



Not to Scale

N

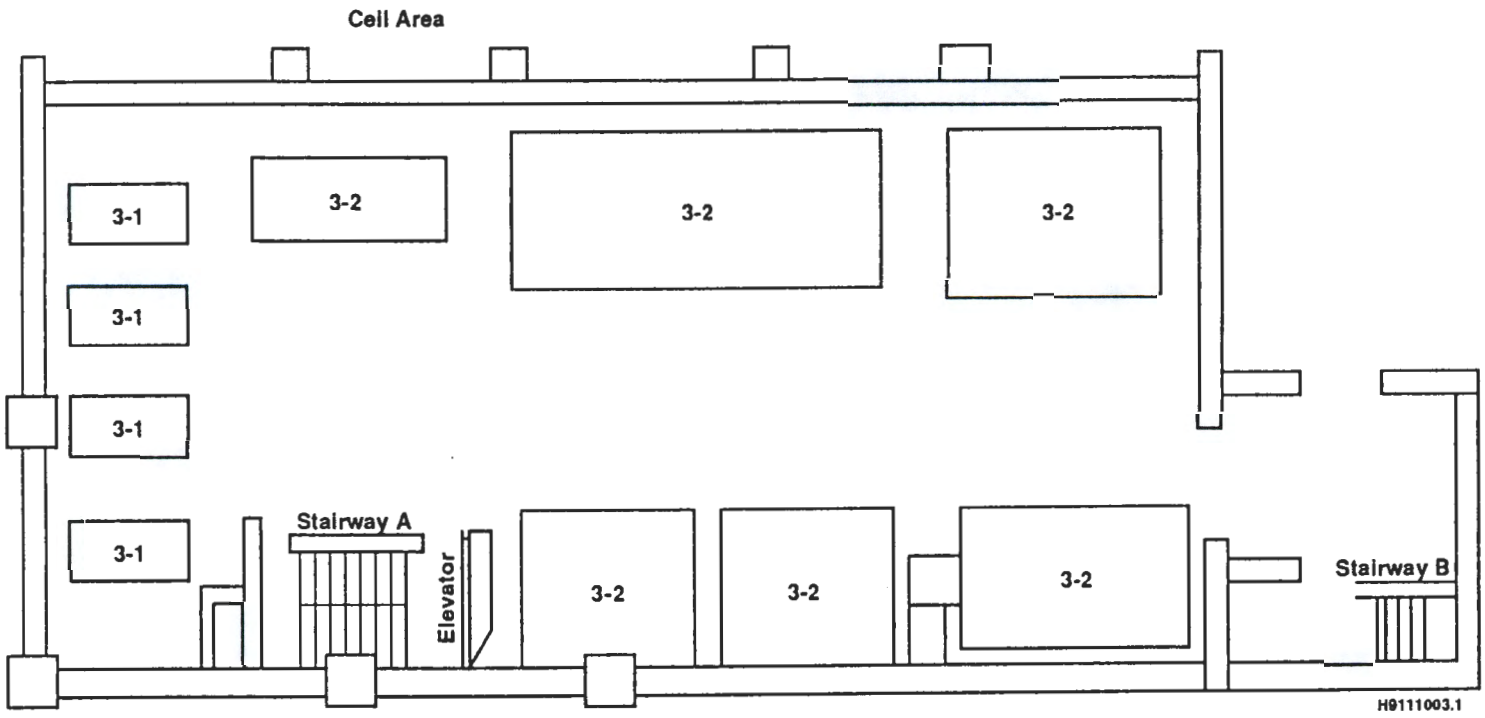
Storage Modules

Modules 2-1, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, and 2-9 are presently for transuranic waste.
Modules 2-2 are for transuranic mixed waste (acids).

Transuranic mixed waste as designated by supervisor.

Note: Storage module locations are adjusted as necessary.

Figure 2-4. 224-T Transuranic Waste Storage and Assay Facility Second Floor Plan.



Storage Modules

Modules 3-1 are for transuranic mixed waste (caustic and others).
Modules 3-2 are presently for transuranic waste.

Note: Storage module locations are adjusted as necessary.

Figure 2-5. 224-T Transuranic Waste Storage and Assay Facility Third Floor Plan.

NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT

224-T TRUSAF SITE VISIT REPORT

PHOTOGRAPH LOG

PHOTOGRAPHS TAKEN ON SEPTEMBER 14, 1993 BY CASEY RUUD

NUMBER	COMMENTS:
1	Hazardous waste drums (Backlog Waste) in first floor storage module number 1 (transuranic mixed waste initial storage) of attached Figure 2-3. Photo taken facing west.
2	Hazardous waste drums (Backlog Waste) in receiving area of first floor (see area identified on attached Figure 2-3) on portable secondary containment system. Photo taken facing southeast.
3	Close-up photo of label on one hazardous waste drum (Backlog Waste) in first floor storage module number 1 (transuranic mixed waste initial storage) of attached Figure 2-3.
4	Photo of hazardous waste drum showing label of photo number 3 in first floor initial storage module number 1 of attached Figure 2-3.
5	Drums in real-time radiography (RTR) x-ray room (see "RTR" room of attached Figure 2-3). Photo taken facing west.
6	Real-time radiography (RTR) x-ray system (shown as "RTR" on attached Figure 2-3). Photo taken facing north.
7	Transuranic waste assayer system (shown as "TWA" on attached Figure 2-3). Photo taken facing northwest.
8	Photo of circular area which appears to have been cemented over. Photo taken in transuranic waste assayer room (shown as "TWA" on attached Figure 2-3).
9	Photo of small circular area which appears to have been cemented over. Not easily seen in photo, but small circular area is located near the corner of a rectangular shaped crack. The cement on the inside of the rectangular shaped crack appeared to be lower than the surrounding floor. Photo taken in transuranic waste assayer room (shown as "TWA" on attached Figure 2-3.
10	Hazardous waste drums stored on second floor in southern corner of building. Area is shown on attached Figure 2-4 and is designated "transuranic mixed waste as designated by supervisor." Photo taken facing south.
11	Hazardous waste area labelled as "Oxidizer Failed X-Ray." Area located in southwestern corner of second floor.
12	Satellite accumulation area located just outside of taped-off area of photo number 11.

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13	Corrosive hazardous waste drums in shaded area shown on attached Figure 2-4 and designated "transuranic mixed waste as designated by supervisor."
14	Ceiling crack and associated staining. Photo taken from second floor on southern end of building in shaded area shown on attached Figure 2-4 and designated "transuranic mixed waste as designated by supervisor."
15	Photo of drum on southern end (second floor) of building in shaded area shown on attached Figure 2-4. Drum has no hazardous waste label.
16	Photo of extremely hazardous waste drum on second floor.
17	Close-up of label on drum shown in photo number 16.
18	Photo of radioactive mixed waste drums on second floor near northwestern end of building.
19	Aisle photo taken from northern end of second floor of building facing south.
20	Caustic drum storage module. Dates of storage on several drums indicated storage since 1989.
21	Lead waste drums located on third floor near column labelled "D-4."
22	"Other mixed waste" shown at northern end of third floor. Of attached Figure 2-5, a portion of storage modules numbered 3-1 are shown.
23	Photo of scaling and chipping paint on western wall of third floor of building.
24	Close-up photo of the scaling and chipping paint of photo number 23.
25	Photo of stained floor of elevator.

9413093.0091

9 14'93
3

RADIOACTIVE
ORM-E
RADIOACTIVE
TANK FARM 200W
LISTED
1

ORM-E
RADIOACTIVE
120 Lbs.
200W/ 241-T
100 Lbs
200W/ 241-T
RADIOACTIVE
WASTE
9 14'93
4

9 14'93
2

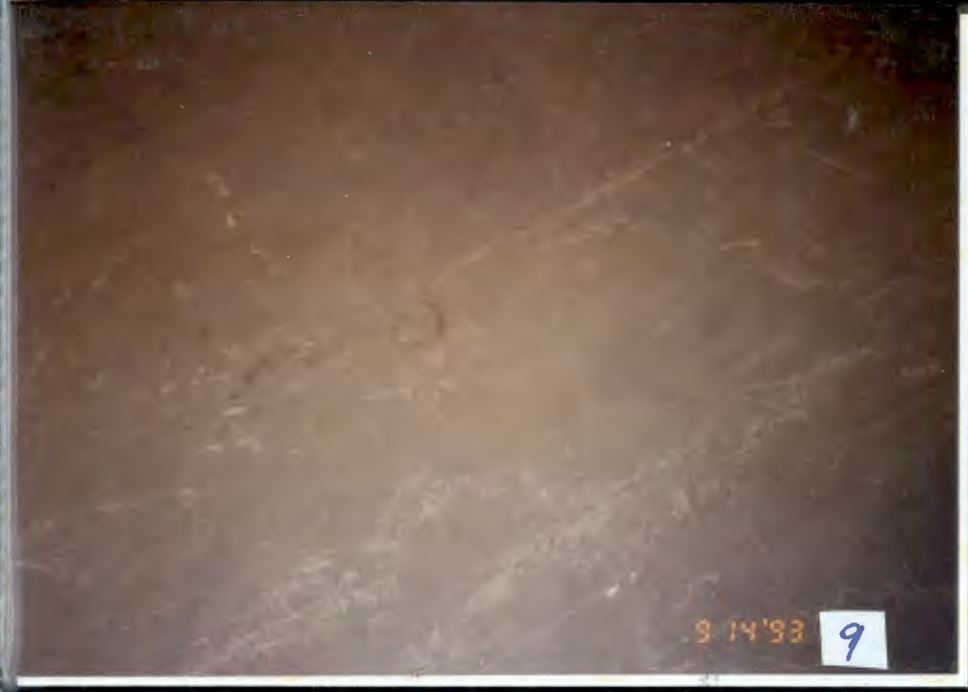
9 14'93
7

9 14'93
5

9 14'93
8

9 14'93
6

9 14'93
11


9 14'93
9

9 14'93
12

TOXIC
9 14'93
10

RETURN TO
GENERATOR
ACIDS
GW: LBS
RHZ 212 A 194
9 14 93
15

RMW-EHW
RHZ-220-A20790
GW: LBS 283
HAZARDOUS
WASTE
PH < 2
ACID
9 14 93
13

TOXIC
GW: LBS 250
RMW-EHW
HAZARDOUS
WASTE
HANDLE WITH CARE!
9 14 93
16

9 14 93
14

9 14'93
19

HAZARDOUS
WASTE
STATE AND FEDERAL LAW
PROHIBITS IMPROPER DISPOSAL
HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES
RADIOACTIVE
9 14'93
17

CAUSTIC
CANNOT
PENETRATE
9 14
20

MANIFEST# 20453-1
201C-91-000159
GR WT: 360 LBS.
RMW-DW
DISPOSAL RESTRICTED
THAN WASTE CATEGORY
MANIFEST# 20 45-16
201C-91-000 32
GR WT: 350 BS.
UN2918
RADIOACTIVE WASTE
RMW-DW
HAZARDOUS WASTE
AND DISPOSAL RESTRICTED
THAN WASTE CATEGORY 3
9 14'93
18

Photo 17
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Ruud

Photo 18
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Ruud

Photo 19
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Ruud

Photo 20
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Ruud

9 14'93
23

RHZ-220-A
WMW-EHW
GW: LBS
9 14'93
21

9 14'93
24

CAUSTIC
9 14'93
22

Photo 21
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Rund

Photo 23
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Rund

Photo 24
9/14/93
224-T TRUSAF, 200 West Area
Hanford Site, DOE
WA7890008967
Photo taken by Casey Rund

9413093.0100

Trace# 89-234

Westinghouse Hanford Company

SOLID WASTE STORAGE /DISPOSAL RECORD

Page 1 of 1

Waste Designation: [X] TRU [ ] LLW [ ] MW [ ] Classified

SWSDR No. (Do Not Write In This Space)

STORAGE/DISPOSAL SITE (This portion to be completed by WHC at storage disposal site.)

I certify that a physical inspection of the waste packages to the extent possible and a cross check of the applicable documentation have been performed in accordance with approved Westinghouse Hanford Procedures

Signature-Acceptance: [signature] Date: 5-1-89

Temporary Storage Location: 224-T

[X] Check here if acceptance copy of this form is sent to SSWESU

Disposition of Waste: [ ] Pad/trench storage [ ] Disposal [ ] Building Storage [ ] Compaction

Area | Facility | Unit | Tier

Beginning Coordinates: N ____ W ____

Ending Coordinates: N ____ W ____

Signature-Storage/Disposal | Date

WASTE GENERATOR: WHC

Charge Code: K6-Z

DOE Authorization No. (WRM): None

Name of Contact: E.C. MINCEY

Address/Phone: 234-5Z 200 West 3-4160

I certify that: (1) No capital property is included in this storage/disposal unless documented by a Property Disposal Request and described below. (2) The waste package description below is complete and accurate, and the waste package meets the requirements of WHC-EP-0063 and the approved Storage/Disposal Approval Record (SDAR). (3) Unless designated as MW, this waste contains no hazardous constituents as defined by TSCA, RCRA, WAC 173-303, or other state or federal regulation. (4) I have been trained in procedures for the identification and management of mixed waste. (5) The charge code is correct.

Signature: [signature] Date: 3/24/89

SDAR Approval No.: 1-1B-2D-3

Uniform Haz. Waste Manifest No.: None

Comments: ZB-89- 04-21

WASTE PACKAGE INFORMATION

SWSDR ( )

PIN: RHZ-212-A19448

CONTAINER: 55 gal. drum

CONTAINER VOL.: Seal#W 40959 .21 [X] M³ [ ] FT³

LxWxH: N/A

GROSS WEIGHT: 89 Ks 188 [X] LBS 88 [X] KG

POINT OF ORIGIN: 234-5Z 200 West

DOSE RATE AT 1 cm.: <1 mrem/hr.

AT 1 m.: mrem/hr.

DOE/NRC 741 NO.: HUD-VUC- 215

PROPERTY DISPOSAL REQ. NO.: None

PHYSICAL DESCRIPTION: Individual packages, double wrapped w/dia. earth

THERMAL POWER (W/FT³): 0.1 watts or less. vented w/catalyst pack.

ORGANIC MATL. WT. (kg.): 10.58 kg

ORGANIC MTL. VOL.%: 32

WASTE CONTENTS DESCRIPTION

WASTE CATEGORIES	WASTE DESCRIPTION	WT. (kg.)	COMBUSTIBLE VOL.%	NON-COMB. VOL.%
[ ] BW	Paper / Plastic	1 / 5.68	6 / 16	
[ ] CE	Cloth	1.5	6	
[ ] DD	Rubber	2.32	4	
[X] DS	Metal	25.5		36
[ ] SS	Cement / Glass	15 / 7		20 / 12
[ ] NC	Dia. Earth	1		<1
	TOTALS	58	32	68

HAZARDOUS CONSTITUENTS

WASTE NO.	ITEM DESCRIPTION	WT. (kg.)
N/A	None	0
	TOTALS	0

RADIOACTIVE MATERIAL CONTENT

TRU only

ELEMENT	DISTRIBUTION (wt%)	WT./Ci	PU 239-FGE	PE-Ci	ALPHA Ci
pu 239	94	28 / 14	28	14	14
pu 240	6	2 / 1	<1	1	1
TOTALS		30 / 15	28	15	15

Distribution: White – Site Solid Waste Engineering Support Unit, 2750E, R1-51; Pink – Return to Shipper; Canary – Tank Farms Scheduler, 272WA, T4-01; Goldenrod – Acceptance Copy – Send to Site Solid Waste Engineering Suport Unit, 2750E, R1-51

54-6000-226 (08/88)

☆U.S. GOVERNMENT PRINTING OFFICE: 1989—691-973

9413093.0101

CONTENTS INVENTORY SHEET

Trace no 84-234
SEAL # - WHC-405959

(1) Page 1 of 2

(2) Waste Generator/Location WHC 236-Z Corr 14

Container No. (3) RH2-212 A1E448

Container Type (4) 55gal Drum

Initials (5)	Initials (5)	Article Description	Content Code (7)	Mass of Organics (Kgs) (8)	Volume of Organics ☐ Ft3 ☑ M3 (9)	Hazardous Material Name (10)	Hazardous Material Qty. Kgs. (11)	Radioactive Content TRU Isotopes (12)	Radioactive Content Grams (13)
TS	SD	2 Pipe wrenches 15% 1 Ratchet Screwdriver (Tools) 3% Dust mask 5% Sample Bottle 10% Tubing Tygon 1/2" 53% Cut & Ink (Tools) 5% Tubing 1/2 Teflon 1 foot of Hose 7 2.1%		~~40 lbs~~ 2	.01	None	Ø	Pu 239 94%	13 grams
JS	SD	Plastic 25% Wrench 5 Zaxy Bottle 10 Stainless Steel 20 Kelly Lee 30		~~10 lbs~~ 1	.005	HO 1-6-89			5 18
Q Q	JE JE	Outter Ring metal 90% Plastic 10% Outter Ring 90% Plastic 10%		.25 .25	.0025 .0025				Ø 18 Ø 18
TW	MM	Stainless steel piping and 75% Cloth tape and pipe cutter - 10% Plastic - 15%		.5	.005	—	Ø HO-1-11-89		11 29
Q	TLW	1 Glass Window 80% 10% Paper 10% Plastic		.5	.0025				Ø 29 Ø 29
DB	MS	1 Glass windows 80% 10% Paper 10% Plastic		.5	.0025	—			Ø 29
DB	MS	1 Glass window 80% 10% Paper 10% Plastic		.5	.0025				
Q	TW	10% D.E. Gas Cloth Rags 10% Plastic		2	.005	HO-1-18-89			Ø 29
		Page Total		(14) 7.5 Kgs	(16) ~~.0325~~		(18) Ø		(20) 29 g
		Total (all pages)		(15) 10.5 Kgs	(17) .0585		(19) Ø Kgs		(21) 35 g

(22) RP Oln 3/3/89
Plant Operations Authority, Signature/Date

(23) EWFancy 3/24/89
Independent Reviewer, Signature/Date

(24) Other Radioactive Content None

(25) Gen wt Kgs 88 lbs. 188

Distribution: White – WASU, 2750E, 200E Canary – TF&O, 272WA, 200W Pink – Retain - Shipper

BC-6400-131 (07/87)

9413093.0102

CONTENTS INVENTORY SHEET

(1) Page 2 of 2

(2) Waste Generator/Location WHC 234-5 1st East

Trace 87-234

SEAL # - WHC 40959

Container No. (3) RHZ-212A 19448

Container Type (4) 55 Gal Drum

Initials	Initials	Article Description	Content Code	Mass of Organics (Kgs)	Volume of Organics ☐ Ft3 ☒ M3	Hazardous Material Name	Hazardous Material Qty. Kgs.	Radioactive Content TRU Isotopes	Radioactive Content Grams	Total
(5)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Q	WC	3 SS Ball valves 15% 4 SS Couplings 1" 10% Paper Ice Cream Cartons 55% Plastic Bags 23% 1 nut driver 7/16" 2%	N/A	1	.005	NONE	Ø	Pu 239 94%	1	30
									0	30
RRT	MM	4 Poly jars cemented 80% 20% plastic NITRIC CRYSTALS		.5	.005					
RRT	MM	4 Poly jars cemented 80% Nitric Crystals plastic-20%		.5	.005				0	30
Q	RLS	1/2" SS Tubing 88% several pieces ~24" Long. 2-SS Valves paper - Plastic Diat-earth 2% 8% 2%		1.0	.005				3	33
Q	[illegible]	1 EMV 80% Plastic 15% Diat Earth 5%			.001	HO-2-3-89			2	35
		Page Total		(14) 3 Kgs	(16) .021		(18) Ø		(20) 6 g	
		Total (all pages)		(15) 10.5 Kgs	(17) .0585		(19) Ø Kgs		(21) 35 g	

(22) RPOen 3/3/89
Plant Operations Authority, Signature/Date

(23) [signature] 3/24/89
Independent Reviewer, Signature/Date

(24) Other Radioactive Content None

(25) Gr. Wt. Kgs 88 [illegible]

Distribution: White – WASU, 2750E, 200E Canary – TF&O, 272WA, 200W Pink – Retain - Shipper

BC-6400-131 (07/87)

9413093.0103

TRAVELER CHECKLIST

(✓) STORAGE AREA #1
( ) STORAGE AREA #2

DRUM ID. RH2-212-A19448

ASSAY

1. NORMAL RUN ✓ OK*
2. ABSORBER INDEX <15 ✓ OK ____ HOLD
3. DETECTORS AGREE ✓ OK*
4. ASSAY + +/- >100 nCi/g ✓ TRU
5. ASSAY + +/- >100 nCi/g (ROOM WASTE ONLY) ____ RETURN TO GENERATOR
6. ASSAY + +/- ≤100 nCi/g ____ LOW-LEVEL
7. IF ACTIVE ASSAY IS >141 GRAMS, BUT <287 GRAMS, NOTIFY SUPERVISION AND SEGREGATE DRUM IN DESIGNATED 3rd FLOOR STORAGE AREA.

   ____ TIME SUPERVISION NOTIFIED
8. IF ACTIVE ASSAY IS >287 GRAMS, STOP ALL OPERATIONS AND NOTIFY SUPERVISION. DO NOT REMOVE DRUM FROM ASSAYER.

   ____ TIME SUPERVISION NOTIFIED
9. PRELIMINARY ASSIGNMENT:

   ✓ TRU (CERTIFIED) ____ TRU (STORAGE PADS)
   ____ LOW-LEVEL ____ HOLD ____ RETURN TO GENERATOR

OPERATOR'S INITIALS BDW BARRERS DATE 5-2-89

APPROVAL, ANALYTICAL LAB REP. [signature] DATE 5-9-89

*IF "OK" CANNOT BE CHECKED, NOTIFY SUPERVISION OR LABORATORY REP.

RTR LOG 1428

X-RAY

1. TAPE NUMBER 179 FOOTAGE 621
2. DETERMINED TO X PASS ____ FAIL ____ BE ON HOLD
3. REMARKS: ____

SIGNATURE WH Nelson DATE 5-8-89

DESTINATION Return to PFP TRUSAF MANAGER [signature] 5-12-89
SIGNATURE/DATE

Nitric Crystals listed on CIS. mixed waste.

Hold - contains Nitric Crystals. need better definition. may be mixed waste.

[initials] 5-9-89

Document No.	Rev/Mod	Page
TO-100-020	D-3	35

PROGRAM NEUT OF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
MATRIX PARAMETER REPORT
MATRIX CORRECTION AND MASS REPORT

ABSORBER INDEX	4.3732
MODERATOR INDEX	.13058
ABSORBER CORRECTION FACTOR	1.3332
MODERATOR CORRECTION FACTOR	1.0000
MATRIX CORRECTION FACTOR	1.3332
250 USEC COINC CORR FACTOR	1.2211
70 USEC COINC CORR FACTOR	1.3559
SHIELDED RATE CORR FACTOR	1.1502
SYSTEM RATE CORR FACTOR	1.0000
ACTIVE ISOTOPIC COR FACTOR	1.0000
PASSIVE ISOTOPIC COR FACTOR	1.0000
ISOTOPIC NCI/G FACTOR	.80720E-01

ACTIVE MASS (GRAMS)	20.252	+/-	2.3656
PASSIVE MASS (GRAMS)	22.903	+/-	3.2253

9413093.0104

SUMMARY REPORT

RUN NUMBER 11 DISK ID 050289 CONTENT CODE 28
PRIMARY ID A19448 SECONDARY ID RHZ-212
TIME AND DATE OF ACTIVE 11:23:35 5/ 2/89
TIME AND DATE OF PASSIVE 11:28:20 5/ 2/89
PASSIVE COUNT TIME(S) 200.13 NO OF ACTIVE PULSES 2000

SYSTEM TOTALS RATE	1396.7	+/-	2.6577
SHIELDED TOTALS	287.65	+/-	1.2063
70 USEC COINC RATE	.74248	+/-	.13721
250 USEC COINC RATE	14.653	+/-	2.0636
SHIELDED ACTIVE SIGNAL	51902.		
SHIELDED ACTIVE BACKGRO	6284.0		
FLUX MONITOR	17000.		
BARREL FLUX MONITOR	3887.4		

PERCENT PU-239 94.00 CONTAINER WEIGHT(KG) 89.0

PASSIVE MASS(G)	22.903	+/-	3.2253
ACTIVE MASS(G)	20.252	+/-	2.3656
NCI/G	27246.	+/-	3182.5
TOTAL ALPHA ACT (CI)	2.2348		
THERMAL POWER (WATT)	.67043E-01		
THERM POW DEN (WATT/FT3	.91215E-02		

ACTIVE NEUTRON INTERROGATION REPORT
ANEUT OF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
RUN 11 DRUM A19448 11:23:35 5/ 2/89

RAW DATA

SHIELDED TOTALS(70, 270)	51902.
SHIELDED TOTALS(570,1570)	6284.
FLUX MONITOR(70, 270)	17001.
FLUX MONITOR(570,1570)	3.
2ND FLUX MONITOR(70, 270)	3892.
2ND FLUX MONITOR(570,1570)	23.

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PNEUT OF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
RUN 11 DRUM A19448 11:28:20 5/ 2/89
ACTUAL GATE LENGTHS .354279E-04 (SHORT GATES) .251018E-03 (LONG GATES)
FOLLOWING DATA HAS BEEN BACKGROUND CORRECTED BY BACKGROU 9:31: 7 5/ 2/89
RUN 101

COUNTING TIME IS 200.13 SECONDS

DETECTOR	COUNT	RATE	DETECTOR	COUNT	RATE
BARE DOOR	47075.	235.22	SHLD DOOR	11297.	56.45
BARE RIGHT	45757.	228.63	SHLD RGHT	11235.	56.14
BARE BACK	43595.	217.83	SHLD BACK	11352.	56.72
BARE LEFT	43812.	218.91	SHLD LEFT	11635.	58.14
BARE TOP	19814.	99.00	SHLD TOP	4418.	22.08
BARE BOTM	21921.	109.53	SHLD BOTM	7632.	38.13
FLUX MONITOR	33.	.16	2ND FLUX MONITOR	180.	.90

SYSTEM TOTALS RATE 1396.78 SHIELDED TOTALS RATE 287.65 (FROM PARTS)
NEUTRON COINCIDENCE

SHIELDED TOTALS	57928.+/-	240.68
SYSTEM TOTALS	281229.+/-	530.31
1ST N LONG GATES	206190.	
1ST N SHORT GATES	57139.	
10 KHZ CLOCK PULSES	2001345.	
1 KHZ CLOCK PULSES	200134.	
1ST N GATED SHORT TOTALS	733.	
1 MHZ CLOCK GATED WITH SHORT	2024317.	
1ST,N GATED LONG TOTALS	74924.	
1MHZ CLOCK GATED WITH LONG	51757340.	

LONG GATE LIVE TIME 148.38 SEC
SHORT GATE LIVE TIME 198.11 SEC
NET COINCIDENT NEUTRONS/LONG GATE .10644E-01+/- .14848E-02
NET COINCIDENT NEUTRONS/SHORT GATE .25739E-02+/- .47574E-03

SYSTEM TOTALS RATE 1396.7 +/- 2.6577
SHIELDED TOTALS RATE 287.65 +/- 1.2063

NET COINCIDENT LONG GATE NEUTRONS/LIVE TIME 14.653 +/- 2.0636
NET COINCIDENT SHORT GATE NEUTRONS/LIVE TIME .74248 +/- .13721

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76001

ITEM ID TAG HERE
UNDER PAPER
IN PRINTER

A 19448

ITEM COUNT STARTED AT 10.9144 HOURS ON DAY 55 OF 1989
BY: E KAUER

PU GROSS COUNT	11430	FP GROSS COUNT	791
-PU BKG COUNT	874	-FP BKG COUNT	519
PU NET COUNT	10556	FP NET COUNT	272

CALIBRATION CURVE USED: LOW DENSITY COMBUSTIBLE DRUM

ITEM WEIGHT = 85.4546 KGS (188 POUNDS)

PLUTONIUM CONTENT = 23.2784 GRAMS
SEND DRUM TO 2736ZB FOR REMEASUREMENT

FISSION PRODUCT COUNT WITHIN ACCEPTABLE LIMITS

Measurement invalid
no Bkg/Std after.
RAH 2-27-89

9413093.0102

IDENTIFY THIS CONTAINER: ? RHZ-212-A19448

INPUT YOUR LAST NAME? KING
ESTIMATE WT % PU-240: ? 6
MULTIPLE SCANS? N
START 2736-ZB LARGE TABLE ROTATION

ITEM ID #: RHZ-212-A19448

PASS 1 OF 1 DONE AT 12:33:15 ON 09-MAR-89
USING 2736-ZB LARGE TABLE GEOMETRY # 1

SEG #	TRANSMISSION	CORR FACTOR	CORR COUNTS
1	0.051	2.809	16.2
2	0.024	3.405	35.8
3	0.110	2.258	35.3
4	0.232	1.776	31.5
5	0.281	1.662	24.9
6	0.175	1.952	23.1
7	0.075	2.524	23.1
8	0.049	2.841	20.2
9	8.99817E-03	4.205	16.2
10	0.198	1.874	6.0
11	0.188	1.907	7.0
12	0.271	1.683	5.5
13	0.242	1.751	3.0
14	0.203	1.858	5.9
15	0.410	1.449	3.6
16	0.353	1.532	4.2
17	0.333	1.564	2.9
18	0.620	1.236	2.9
19	0.690	1.184	0.9
20	0.765	1.136	0.1
21	0.236	1.765	0.3

TOTAL GRAMS PU239 = 27.8 +- 0.7 (2.4 % UNCERTAINTY @ 95% CL)
TOTAL GRAMS PU = 29.8 +- 0.7 GMS

WRITING RESULTS TO SGSAS.DAT FILE RECORD # 72 . 928 RECORDS LEFT.

PUSH RED BUTTON TO STOP ROTATION
** ASSAY ITEM READY FOR UNLOADING **

9413093.0100

9413093.0109

INSPECTION SHEET
FOR TRU WASTE DRUM OR LARD CAN

A. EMPTY CONTAINER

_____ 50-lb Lard Can ✓ 55-Gal Drum

89-234 Drum Trace Number

Instructions: Fill in blanks. Use check mark to indicate satisfactory condition. If damage is observed, describe damage. If item does not apply, record N/A.

DOT 17C stamped on bottom ✓
Surface integrity (no dents, scratches, holes, cracks) ✓
Lid, gasket, roundness ✓
Lockring, bolt ✓
Rivets on handle (lard can only) N/A
Trace number applied ✓

Accepted ✓ Rejected _____

Operator's Signature M L Peterson Date 12-13-88

QC Signature [signature] for Date 12-13-88

B. FILLED, SEALED DRUM

Instructions: Note any damage observed. Use check mark to indicate satisfactory condition. Enter Drum No., Seal No., signatures and dates.

Lid ✓
Gasket ✓
Drilled bolt ✓
Vent Clip installed ✓
Catalyst packet in place ✓
Bolt properly torqued [signature] 2-17-89
Locknut tightened against threaded by ✓
Exterior surface undamaged ✓
Drum number applied _____ Drum No. RAZ-212-A19448
Gross weight applied ✓ Gross Wt. 188 lbs. 88 KGS.
Rockwell package label completed, signed, affixed ✓
Security seal applied TLW ✓ Seal No. WHC 40959
Contents Inventory Sheet attached ✓

Operator's Signature [signature] Date 3-3-89

Reviewer's Signature RP Olson Date 3/3/89

OFFICIALLY RELEASED 26A ODM

Document No.	Rev/Mod	Page
ZO-170-016	D-2	4

ED-6400-083.2 (R-5-82)

TRACE # 89-234
Seal # W 40959

WIPP CERTIFICATION CHECKLIST

CONTAINER NUMBER RHZ-212A19448 DATE CONTAINER SEALED 3-3-89

YES	NO	WASTE ACCEPTANCE CRITERIA
☑	☐	DOT Type A Container.
☑	☐	Heavy or bulky items are blocked to prevent shifting.
☑	☐	Container is free of defects.
☑	☐	Waste contains less than 1% by weight powders.
☑	☐	Waste does not contain any free liquids.
☑	☐	Waste does not contain any explosives or compressed gases.
☑	☐	Waste does not contain any organic peroxides, oxidizers, flammable solids or metal fines.
☑	☐	Waste does not contain any sludges with pH ≤ 4.0.
☑	☐	Waste contents will not react with each other or with container.
☑	☐	Surface contamination is ≤ 50 pCi (100 dpm) / 100 sq cm alpha and ≤ 450 pCi (1000 dpm) / 100 sq cm beta-gamma.
☑	☐	Proper labeling has been applied.
☑	☐	Hazardous and corrosive co-contaminants are identified on Contents Inventory Sheet.
☑	☐	Gross weight is less than qualified DOT Type A limit (658 kg)
☑	☐	Pu-239 Fissile Gram Equivalent content is less than WIPP specified limit (200 g)
☑	☐	Pu-239 equivalent TRU activity (PE-Ci) is less than the WIPP specified limit of 1000 PE-Ci.
☑	☐	Surface dose rate is ≤ 200 mrem/hr (beta, gamma and neutron) at any point.
☑	☐	Neutron dose rate contribution is ≤ ~~50~~ 20 mrem/hr

The waste package described above is unclassified and meets all WIPP Waste Acceptance Criteria

☑ With no exceptions
☐ With the following exceptions:

Plant Operations Authority signature and date: [illegible] 3/3/89

Independent Reviewer signature and date: [illegible] 3/24/89

Document Review Only [illegible] 4/07/89

White - SWP&DU, 2750E, 200-E
Yellow - TFO, 272WA, 200-W
Pink - Retain, Shipper

BC-6400-132 (7-85)

9413093.0110

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
A. D. Huckaby, Ecology	L. E. Michael, BCSR	9308137

Subject: ENTRY OF SITE VISIT REPORT TO ADMINISTRATIVE RECORD 224-T TRUSAF (S-2-2, M-20-23)

INTERNAL DISTRIBUTION

Approval	Date	Name	Location	w/att
		Correspondence Control	A3-01	X
		R. C. Bowman	H6-24	
		T. O. Elsethagen	A2-50	
		L. E. Michael	H6-08	X
		C. N. Potter	B5-04	
		R. N. Richardson	H6-08	
		D. G. Saueressig	H6-24	
		EPIC	H6-08	X

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