Atlantic Richfield Hanford Company
Richland, Washington 99352

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**SPECIFICATIONS AND STANDARDS FOR THE
PACKAGING, STORAGE, AND DISPOSAL
OF RICHLAND OPERATIONS SOLID WASTES**

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**Waste Handling and Plutonium Finishing Process Engineering
Operations Technical Support Department
Operations Division**

April 29, 1974

**PREPARED FOR THE U.S. ATOMIC ENERGY
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1.0 INTRODUCTION

The Atlantic Richfield Hanford Company (ARHCO) receives and stores or disposes of solid radioactive and nonradioactive solid wastes routinely generated by ARHCO, Battelle-Northwest (BNW), Hanford Engineering Development Laboratory (HEDL), J. A. Jones Construction Company (JAJ), and United Nuclear Industries, Inc. (UNI). Solid radioactive waste is also received from offsite Atomic Energy Commission (AEC) contractors and stored or disposed of by ARHCO in the 200 Areas at special request from the AEC.

Nonradioactive, nonhazardous, combustible wastes are collected from contractors by ARHCO on an informal schedule and transported by specially-equipped compactor vehicles to the Central Landfill Facility. These wastes are monitored for unacceptable radiation levels, then covered with earth daily to minimize the opportunity for combustion and/or wind-scattering of the wastes.

Solid waste is defined as solid material or solidified residue which is of negative value relative to recovery and disposal costs and will be discarded (reference 1). Solid waste is packaged, handled, and stored or disposed of according to its radioactivity content, size, source of generation, and chemical and isotopic composition.

The purpose of this document is to provide specifications and standards which will assure that all solid wastes handled by ARHCO are packaged and stored or disposed of in accordance with: (1) ARHCO Waste Management Program Objectives; (2) ARH-220, July 1, 1972, "Radiation Protection Standards and Controls;" (3) AEC Manual Chapter 0510, March 7, 1968, "Waste Disposal," its Richland Operations Office (RL) Supplement and Appendix; and (4) AEC Manual Chapter 0511, September 19, 1973, "Radioactive Waste Management."

This specifications and standards document supersedes ARH-183 (unclassified), December 15, 1967, Waste Management Process Engineering Section, "Specifications and Standards for the Disposal of Battelle-Northwest Solid Wastes," and ARH-1842 (unclassified), December 15, 1970, G. L. Hanson and G. C. Oberg, "Specifications and Standards for the Burial of ARHCO Wastes." Storage of failed, contaminated process equipment in tunnels is covered in ARH-1516 (unclassified), 1971, K. H. Henry and G. L. Ritter, "Environmental Specifications, Objectives and Standards for Purex Plant Effluents."

2.0 DISCUSSION

Solid low-level combustible and noncombustible radioactive wastes generated by AEC-RL contractors, containing less than 10 nanocuries of plutonium and/or other transuranic radionuclides per gram, are normally packaged in cardboard cartons, wood boxes, steel or fiber drums, and buried in 200 Areas "dry waste" burial trenches. Wastes containing toxic chemicals or oxidizing agents, such as nitric acid, permanganates, etc., are packaged in specified noncombustible containers.

Solid wastes containing greater than 10 nanocuries of plutonium and/or other transuranium nuclide contamination per gram shall be segregated from other radioactively-contaminated solid waste. Combustible and noncombustible plutonium or transuranium-contaminated waste shall be packaged separately. The packaging and storage conditions shall be such that the packages can be readily retrieved in an intact, contamination-free condition for 20 years (reference 2). Small items of contaminated waste, in this category, are packaged in approved containers (references 3 and 4) and stored on the asphalt pad or buried in either trenches or in caissons in 200 West Area. Failed equipment or other large items of solid waste from the Purex Plant, Z Plant, or other ARHCO operations, containing or suspected of containing plutonium or other transuranic radionuclides, are packaged in approved metal or concrete containers and stored in segregated alpha trenches in the "industrial waste" burial garden. Large items of waste from the Purex Plant are also stored in the Purex Plant burial tunnel on railroad cars.

Solid high-level beta and gamma emitting wastes, packaged in concrete or lead to provide adequate shielding and containment during handling, transporting, and temporary storage, are shipped by cask on trucks or rail-cars for disposal in caissons or burial trenches. Large items of solid high-level waste, such as failed equipment from B Plant, tank farm operations, and other locations where the presence of transuranium radionuclides can be safely ruled out, are buried in the "industrial waste" burial trenches.

All offsite customer shipments and inter-area transfers shall be in compliance with all applicable Department of Transportation and AEC regulations for the packaging and shipment of radioactive wastes to ARHCO. International shipments shall also comply with the International Atomic Energy Agency regulations. All shipments of radioactive wastes, from offsite customers, are received at the 1166 Building. These waste shipments shall be controlled by the Coordinator, Administration and Radioactive Materials Shipments - Transportation, Utilities, Maintenance Services Division (E. F. Curren, 942-7164).

Any questions relating to burial garden practices should be directed to the ARHCO Tank Farm Operation Section Production Planner (942-2213).

3.0 SPECIFICATIONS FOR PACKAGING, STORAGE, AND DISPOSAL OF SOLID WASTES

The specifications presented in this document define the limits within which solid wastes may be packaged, stored, and disposed of by ARHCO for the AEC. Specifications set forth limits required to protect the environs, operating facilities, and personnel. Changes in specifications may be made only with the written approval of the following managers:

- (1) Operations Technical Support Department
- (2) Research Department
- (3) Development Engineering Department
- (4) Safety and Environmental Control Department

Acceptance by the following managers:

- (1) Plutonium Finishing Section
- (2) Services and Security Department
- (3) Waste Processing Section
- (4) Tank Farm Management Department
- (5) Process Control Laboratories Section

and notification of authorized representatives of BNW, HEDL, JAJ, and UNI.

3.1 CRITICALITY PREVENTION

3.1.1 Caisson Storage

3.1.1.1 Transuranic solid wastes shall be packaged in approved containers for storage in caissons. Caissons are vertical culverts which normally have exhaust systems.

3.1.1.2 The quantity of fissile material per container shall not exceed the following:

<u>Container Volume</u>	<u>Depleted & Natural U</u>	<u>Maximum Quantity per Container</u>		
		<u>Enriched U up to 0.95 Wt. % ^{235}U, pounds</u>	<u>Enriched U 0.95 to 2.5 Wt. % ^{235}U, pounds</u>	<u>Enriched U >2.5 Wt. % ^{235}U and Pu in any form, grams</u>
Up to 300 ml	No limit	0.7	0.3	2
300 to 600 ml	No limit	1.3	0.7	4
600 ml to 1 qt	No limit	2.0	1.0	6
1 qt to 6 qt	No limit	8.0	4.0	12
6 qt to 15 gal	No limit	8.0	4.0	12
15 gal to 55 gal	No limit	8.0	4.0	12

3.1.1.3 These caissons shall be considered Class B for fire fighting.

3.1.2 Asphalt Pad Storage and Dry Waste Trench Burial

3.1.2.1 Individual containers of miscellaneous wastes (e.g., sampling equipment, surgical gloves, wipes, rags, etc.) packaged for trench burial or pad storage shall not routinely contain more than 200 grams total mass of plutonium, ^{233}U , ^{233}Pa , and ^{235}U (where the ^{235}U is associated with any uranium enrichment above natural).

Tank Farm Operation Section shall be notified prior to shipment, whenever the total plutonium, ^{233}U , ^{233}Pa , and ^{235}U (where the ^{235}U is associated with any uranium enrichment above natural) contained in any one shipment of packaged waste to the storage or burial sites exceeds 200 grams.

3.1.2.2 Burial of individual containers of miscellaneous wastes containing larger quantities of fissile materials than specified in paragraph 3.1.2.1 shall require a new specification with the same approval as Section 3.0.

3.1.2.3 Tank Farm Operation Section shall assure that the arrangement of containers on the asphalt pad and in the burial trench will not allow the total concentration of plutonium, ^{233}U , ^{233}Pa , and ^{235}U (where the ^{235}U is associated with any uranium enrichment above natural) to exceed 175 grams per square foot of concrete pad or trench bottom area.

3.1.3 Industrial Waste Trench Burial

3.1.3.1 Any hydrogenous material to be placed in a burial container, other than the hydrogenous material used in the fabrication of the contained equipment pieces, shall be physically segregated from the equipment pieces and shall be essentially free (less than 15 grams) of fissile material.

3.1.3.2 Only those materials known to be essentially free (less than 15 grams) of plutonium, ^{233}U , and ^{233}Pa (based either upon flushing or prior service) shall be added to burial boxes that contain failed equipment which may (based upon prior service) contain plutonium, ^{233}U , and/or ^{233}Pa .

3.1.3.3 The total mass of plutonium, ^{233}U , and ^{233}Pa contained in a burial box shall be known beyond reasonable doubt (as determined by the best estimating methods) to be less than 1,000 grams. In addition, any individual equipment piece placed in the box shall be known beyond reasonable doubt to satisfy at least one of the following:

- The equipment piece shall contain less than two pounds of ^{238}U and thorium; or
- The equipment piece contains less than 350 grams total of plutonium, ^{233}U , and ^{233}Pa ; or
- The equipment piece shall contain a combined plutonium, ^{233}U , and ^{233}Pa mass of less than 1,000 grams at a ratio of less than 3,000 grams per ton of combined ^{238}U (less than or equal to 1.15 percent ^{235}U) and thorium.

- 3.1.3.4 When the ^{235}U content of uranium present is greater than 1.15 but less than or equal to 1.97* percent, individual boxes containing miscellaneous equipment pieces (jumpers, agitators, etc.) for burial in the industrial waste trenches shall be known beyond reasonable doubt to contain less than 340 grams total plutonium, ^{233}U , and ^{233}Pa , and less than 1,100 pounds of uranium. The quantity of thorium disposed of under this specification (3.1.3.4) is not restricted by criticality considerations.
- 3.1.3.5 Burial of boxes suspected to contain larger quantities of fissile materials than specified in paragraphs 3.1.3.3 and 3.1.3.4 shall require a new specification with the same approval as Section 3.0.
- 3.1.3.6 Individual boxes shall be positioned in the burial trench so that a minimum of three feet, edge-to-edge spacing, is assured for all boxes containing greater than 250 grams total plutonium, ^{233}U , and ^{233}Pa , singly or in combination.

3.2 CHEMICAL HAZARDS CONTROL

- 3.2.1 Chemicals which are incompatible (e.g., those which could react vigorously, or possibly explode in combination) shall not be packaged in the same waste container.
- 3.2.2 Solid wastes containing beryllium shall be packaged for double containment, sealed, and labeled with beryllium labels.
- 3.2.3 Waste containers shall not contain fission products capable of generating container surface temperatures which, after being covered with earth, would compromise the integrity of the containers for 20 years.

3.3 ENVIRONMENTAL PROTECTION

- 3.3.1 The contractor generating solid waste in an AEC operation shall be responsible for minimizing the volume of waste and the radioactivity content of the waste.
- 3.3.2 Packaging and shielding of radioactive solid wastes shall be sufficient to prevent contamination spread or undue exposure to personnel during transport and disposal operations.

* 2.1 percent ^{235}U burned to a ^{240}Pu content of greater than or equal to 3 weight percent (the minimum irradiation allowed in fuel normally processed in Chemical Processing Division facilities).

3.3.3 Solid Transuranic Wastes

- 3.3.3.1 Solid wastes containing greater than an average 10 nanocuries of total plutonium, ^{233}U , and transuranium nuclides per gram shall be packaged and stored such that the packages can be readily retrieved in an intact, contamination-free condition for 20 years.

In addition, these waste containers shall be suitably labeled so the waste they contain can be identified by cross-reference to permanent records. The originator is to label the waste container with a specified prefix followed by consecutive numbers. To eliminate duplication, obtain the prefix designation from the Tank Farm Process Engineering Subsection (J. D. Anderson, 942-2670).

- Failed equipment or other large items of solid waste containing plutonium, ^{233}U , and/or other transuranium nuclides, as described above, shall be packaged in containers specified in reference 4 or by the Manager, Process Design and Development, and buried in designated alpha "industrial waste" trenches; or when generated at Purex the waste may also be stored in the Purex burial tunnel.
 - Small items of failed equipment and trash-type wastes, containing ^{233}U and/or other transuranium nuclides, as described above, shall be packaged in containers as specified in reference 5 or by the Manager, Process Design and Development, and stored in designated transuranic "dry waste" trenches, caissons, or on designated alpha asphalt pads.
- 3.3.3.2 Combustible and noncombustible transuranium-contaminated solid waste shall be packaged and stored separately.
- 3.3.3.3 The Central Landfill Facility shall be controlled and operated by the Road Maintenance and Heavy Equipment Department of the Transportation, Utilities, Maintenance, Services Division.

The originators of the waste shall ensure that such wastes are free of radioactive contamination (less than 200 cpm beta/gamma and less than 500 d/m alpha). The driver of the waste compactor truck shall visually inspect each load as it is discharged at the Central Landfill Facility and immediately report any suspect wastes to Radiation Monitoring. Radiation Monitoring shall conduct a weekly visual and radiation inspection of the entire facility. Any radiation readings above 200 cpm beta/gamma or 500 d/m alpha shall be reported to the Road Maintenance and Heavy Equipment Department for special decontamination instructions.

The waste shall be backfilled with earth daily to minimize the chances of an accidental fire and avoid wind-scattering the wastes.

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4.0 STANDARDS FOR PACKAGING, STORAGE, AND DISPOSAL OF SOLID WASTES

Standards set forth operating limits designed for safe and efficient operation of the waste disposal sites. Although deviation from these standards may not cause immediate potential danger to the environs, continued operation outside these limits could have serious consequences.

Changes in standards may be made only with the written approval of the Manager, Waste Handling and Plutonium Finishing Process Engineering Section and acceptance by the following managers:

- (1) Plutonium Finishing Section
- (2) Safety and Environmental Control Department
- (3) Services and Security Department
- (4) Waste Processing Section
- (5) Tank Farm Management Department
- (6) Process Design and Development Section
- (7) Process Control Laboratories Section

and notification of BNW, HEDL, JAJ, and UNI authorized representatives.

4.1 PACKAGING

- 4.1.1 Packaging of solid radioactive wastes shall be in containers which will permit storage, handling, and burial of the wastes with radiation exposure at a practical minimum and low risk of contamination spread.
- 4.1.2 Oxidizing materials, such as HNO_3 , KMnO_4 , etc., shall not be packaged with combustible wastes or in combustible containers. Rags, used for cleanup of solution spills, shall be well-rinsed to remove the oxidizing material before discard to the solid waste container.
- 4.1.3 Solid wastes shall be essentially dry. Damp wastes shall be packaged in an inner waterproof container such that the moisture is contained and the integrity of the outer container is not jeopardized during storage, transit, and burial operations. Waste containing contamination which is easily airborne shall also be contained by an inner container (e.g., sheet plastic).

Liquid in wastes for disposal by burial shall be packaged with sufficient inert absorbent material (e.g., vermiculite) so that liquid will not flow if the container is broken.

- 4.1.4 Each solid radioactive waste container shall be surveyed at the facility generating the waste. The radiation readings for each container or group of containers shall be recorded. Waste containers generated by facilities where plutonium, ^{233}U , ^{233}Pa , and ^{235}U could

be present in significant quantities should be monitored by neutron counting or other methods which will provide a meaningful estimate of the fissile content of the waste.

- 4.1.5 Exterior surfaces of the waste package shall be free of smearable contamination (less than 200 c/m beta-gamma, less than 500 d/m alpha per 100 cm²) or have the contamination fixed (except for transuranic or plutonium-contaminated solid wastes) with an adherent film or contained by additional packaging. Large burial boxes, contaminated externally, shall have the contamination fixed with an adherent film or contained by packaging.

4.2 TRANSFER, STORAGE, AND BURIAL

- 4.2.1 All waste transfers and burials shall be conducted within the conditions established by approved radiation work procedures.
- 4.2.2 Alpha trenches shall be backfilled with a minimum of four feet of earth.
- 4.2.3 Beta-gamma trenches shall be backfilled with a minimum of eight feet of earth.
- 4.2.4 Backfilling of open burial trenches shall be scheduled to reduce radiation exposure to personnel to a practical minimum and/or to prevent the spread of contamination to the environs. However, waste trenches shall be backfilled immediately whenever the dose rate at the edge of the trench reaches 100 mR/hr, to reduce surface readings to less than 100 mR/hr.
- 4.2.5 Routine burials to "dry waste" trenches are limited to containers having radiation emissions of less than 100 mR/hr at one foot.
- 4.2.6 Nonroutine burials (e.g., containers having radiation emissions greater than 100 mR/hr at one foot) shall be scheduled with Tank Farm Management personnel.
- 4.2.7 The originators of waste destined for the Central Landfill Facility shall institute administrative controls to reasonably ensure these wastes are free of chemicals and contain no unabsorbed liquids.

The Central Landfill Facility shall be partially fenced against the prevailing winds to minimize wind-scattering of the wastes.

4.3 BURIAL SITE DEACTIVATION

When the capacity of a facility is exhausted or when it is removed from service, the following conditions shall be met:

- 4.3.1 Additional backfill or permanent shielding shall be provided as necessary to reduce surface radiation levels to less than 1 mR/hr, and shall be free of surface contamination (less than 200 cpm beta/gamma and less than 500 d/m alpha).
- 4.3.2 Deactivated disposal sites shall be accurately and permanently marked and recorded according to the guidance of AEC-RL Supplement 0510, Section C-4. Markers used shall meet Hanford Standard AC-5-40 requirements.
- 4.3.3 Deactivated solid waste disposal sites shall be periodically inspected, at least semiannually, to assure that the required conditions in 4.3.1 and 4.3.2 are maintained. Deficiencies noted on inspection shall be corrected.

4.4 RECORDS AND ACCOUNTING

A solid waste burial record form, 54-6500-028 (10-68) or form 54-3000-581 (3-68) has been developed for use by all facilities generating solid waste for burial, which is to be accompanied by form BC-6800-076 (10-72) when transuranic wastes are present (see attachments). When applicable, mixed fission product factors for conversion of mR/hr readings to curies of total radioactivity have been provided on form 54-6500-028. Any questions concerning the completion of these forms should be directed to Tank Farm Process Engineering Subsection personnel.

- 4.4.1 A solid waste burial record form shall be completed by the facility generating the waste and shall accompany the shipment to the burial grounds. A transuranic dry waste storage form must also accompany the shipment if transuranic wastes are present.
- 4.4.2 Upon receipt of the waste shipment at the burial ground, the "Disposal Site" section of the solid waste burial record form and the transuranic dry waste storage form shall be completed. Completed forms shall be transmitted to the Tank Farm Process Engineering Subsection.
- 4.4.3 The location of solid waste burials shall be recorded by trench number and coordinates. This information shall be submitted to the Tank Farm Process Engineering Subsection, which will maintain the official records of solid waste committed to all burial sites.

Periodic reports, at least quarterly, of solid waste burials shall be made by the Tank Farm Process Engineering Subsection.

- 4.4.4 A monthly record of the volume of waste discharged to the Central Landfill Facility shall be maintained by the Road Maintenance and Heavy Equipment Department.
- 4.4.5 Drawings of all solid waste burial sites shall be revised and updated, at least annually, by the Tank Farm Operation Section.

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5.0 REFERENCES

- ✓ (1) Immediate Action Directive 7401-19, May 26, 1971, "Scrap Management Program."
- o (2) AEC Manual Chapter 0511, September 19, 1973, "Radioactive Waste Management."
- o (3) HWS-8828 REV 1 (unclassified), August 23, 1972, Facilities Engineering Department, "Specification for Procurement of 55-Gallon Drums for Storage of Radioactive Materials."
- ✓ (4) ARH-2239 (unclassified), March 15, 1972, R. A. Kennedy, "Design Criteria, Transuranic Dry Waste Burial Containers."
- ✓ (5) HW-83959 (unclassified), September 8, 1964, W. H. Koontz, "Criteria for Design of Equipment Burial Containers."

GENERAL

WHEN THE ACTIVITY OF THE WASTE IS CONSIDERED TO BE MIXED FISSION PRODUCTS, AN ESTIMATE OF THE Curies OF ACTIVITY CAN BE OBTAINED THROUGH USE OF THE CONVERSION FACTORS LISTED BELOW FOR SPECIFIC CONTAINERS. THE FACTORS ARE THE NUMBER OF Curies OF MIXED FISSION PRODUCTS THAT WILL GIVE ONE (1) mR/hr. AT THE STATED DISTANCES. THE FACTORS CONVERT THE GAMMA ACTIVITY TO TOTAL ACTIVITY, INCLUDING THE BETA COMPONENTS. THEREFORE, ONLY C.P. WINDOW CLOSED READINGS ARE USED. THE FACTORS ARE FOR THE C.P. READINGS AT THE CENTER OF THE LARGEST SIDE OF BOXES, AND AT THE CENTER OF THE SIDE OF A DRUM.

SPECIFIC

1. OBTAIN A SURFACE (2") WINDOW CLOSED C.P. READING AT THE CENTER OF THE LARGEST SIDE OF THE CONTAINER. IF SURFACE READING IS OFF SCALE, TAKE READING AT 3 FT.
2. TOTAL THE SURFACE (2") C.P. READINGS FOR THE SAME TYPE CONTAINER.
3. TOTAL THE C.P. READINGS AT 3 FT. FOR THE SAME TYPE CONTAINER.
4. DETERMINE THE TOTAL Curies IN THE SAME TYPE CONTAINER BY MULTIPLYING THE TOTAL OF THE C.P. READINGS BY THE APPROPRIATE CONVERSION FACTOR FOR THE CONTAINER AND DISTANCE.
5. FOR BURIALS IN CONCRETE, WOODEN, AND OTHER TYPE CONTAINERS, OBTAIN THE C.P. READING OF THE LARGEST SIDE AT A MEASURED DISTANCE AND APPLY THE APPROPRIATE FACTOR FOR THE CONTAINER AND DISTANCE.

CONVERSION FACTORS

CONTAINER	UNIT VOLUME (FT ³)	FACTORS (Curies /mR /hr.)	
		AT SURFACE (2")	AT 3 FT
222-S LAB CARDBOARD 10"X10"X25"	(1.5)	4 X 10 ⁻⁴	1 X 10 ⁻²
SMALL STD CARDBOARD 16"X15"X16"	(2.2)	5 X 10 ⁻⁴	1 X 10 ⁻²
LARGE STD CARDBOARD 18"X18"X24"	(4.5)	7 X 10 ⁻⁴	1 X 10 ⁻²
30 GALLON IRON DRUM	(4.1)	8 X 10 ⁻⁴	1 X 10 ⁻²
47 GALLON FIBER DRUM	(6.3)	1 X 10 ⁻³	1 X 10 ⁻²
55 GALLON IRON DRUM	(7.4)	1 X 10 ⁻³	1 X 10 ⁻²
202-A LOAD LUGGER	(139)	8 X 10 ⁻³	3 X 10 ⁻²
222-S LOAD LUGGER	(159)	6 X 10 ⁻³	2 X 10 ⁻²
221-T LOAD LUGGER	(264)	8 X 10 ⁻³	3 X 10 ⁻²

FT³ TABLE

FT ³ OF CONTAINER	TOTAL FT ³	NUMBER OF CONTAINERS								
		2	3	4	5	6	7	8	9	10
1.5		3	4.5	6	7.5	9	10.5	12	13.5	15
2.2		4.4	6.6	8.8	11	13.2	15.4	17.6	19.8	22
4.5		9	13.5	18	22.5	27	31.5	36	40.5	45
4.1		8.2	12.3	16.4	20.5	24.6	28.7	32.8	36.9	41
6.3		12.6	18.9	25.2	31.5	37.8	44.1	50.4	56.7	63
7.4		14.8	22.2	29.6	37	44.4	51.8	59.2	66.6	74

NO. OF 4.5 FT ³ BOXES	11	12	13	14	15	16	17	18	19	20
TOTAL FT ³	49.5	54	58.5	63	67.5	72	76.5	81	85.5	90
NO. OF 4.5 FT ³ BOXES	21	22	23	24	25	26	27	28	29	30
TOTAL FT ³	94.5	99	103.5	108	112.5	117	121.5	126	130.5	135
NO. OF 4.5 FT ³ BOXES	31	32	33	34	35	36	37	38	39	40
TOTAL FT ³	139.5	144	148.5	153	157.5	162	166.5	171	175.5	180

SOLID WASTE BURIAL RECORD

200 AREA PLATEAU DISPOSAL SITE OPERATED FOR RL - AEC
BY ATLANTIC RICHFIELD HANFORD COMPANY

DISPOSAL SITE		SHIPPER	
THIS PORTION OF FORM TO BE COMPLETED BY ARHCO REPRESENTATIVE AT DISPOSAL SITE			
AREA	BURIAL GARDEN NO.	TRENCH NO.	SHIPMENT NO.
CAISSON NO.	COORDINATES N _____ W _____		COMPANY
REMARKS		BUILDING:	AREA:
		ADDRESS (OFF SITE)	
		DATE	
DATE		SIGNATURE	
SIGNATURE			

PHYSICAL DESCRIPTION

MATERIAL CONTENTS (NOTE ANY SPECIAL CONDITIONS) E.G., DISSOLVER, PUMP, SAMPLING OR LABORATORY PAPER WASTE, TIMBERS, RESIN.							
CONTAINER	BOX	NO.	LENGTH	WIDTH	HEIGHT	☐ HANFORD STANDARD CARDBOARD	
	DRUM	NO. AND SIZE					
	OTHER	NO. AND SIZE					
	TOTAL VOLUME (FT ³)						

ACTIVITY DESCRIPTION

GENERAL ACTIVITY DESCRIPTION (E.G., LONG-LIVED ISOTOPES SUCH AS PU, CO, SF, CS; MIXED FISSION PRODUCTS; ACTIVATION PRODUCTS)			
PLUTONIUM	URANIUM	ACTIVITY (IF PU OR U, ONLY UNITS IN GRAMS REQUIRED)	
GRAMS	GRAMS ENRICHMENT	CURIES	
DOSE RATE		☐ SURFACE ☐ INCHES ☐ FEET	
		mR/hr at _____	
DISTRIBUTION: WHITE - } ARHCO YELLOW - } PINK - RETAIN GOLDENROD - (BNW) WD&D, 325 BLDG. GOLDENROD - (DUN) WASTE DISPOSAL COORDINATOR, 1760-M BLDG. GOLDENROD - (ITT/FSS) ENGINEERING PLANNING, RM. 477, FLD. BLDG.		BY ORIGINATOR BY ARHCO - SIGN AND FORWARD TO: WHITE - ARHCO SUPERVISOR OF BURIAL GROUND YELLOW - BNW WASTE DISPOSAL AND DECONTAMINATION, 325 BLDG. YELLOW - DUN WASTE DISPOSAL COORDINATOR, 1760-M BLDG. YELLOW - ITT/FSS ENGINEERING PLANNING, RM. 477 FLD. BLDG.	

[illegible]

DATE: _____

DISPOSAL SITE:		
Area	Burial Garden N ^o	Trench N ^o
Calsson N ^o	Coordinates North West	
Remarks		
Signature		Date

DRUMS ARE ACCEPTED per SOP 300.8

Date