Idaho
National
Engineering
Laboratory

INEL-95/0310
(Formerly EGG-WM-10903)
Rev. 1
August 1995

A Comprehensive Inventory of Radiological and Nonradiological Contaminants in Waste Buried in the Subsurface Disposal Area of the INEL RWMC During the Years 1952–1983

Volume 3

Lockheed
Idaho Technologies Company

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Idaho National Engineering Laboratory
Lockheed Idaho Technologies Company
Idaho Falls, Idaho 83415

Prepared for the
U.S. Department of Energy
Office of Environmental Restoration and Waste Management
Under DOE Idaho Operations Office
Contract DE–AC07–94ID13223

PREFACE

This report, *A Comprehensive Inventory of Radiological and Nonradiological Contaminants in Waste Buried in the Subsurface Disposal Area of the INEL RWMC During the Years 1952–1983*, is comprised of five volumes. Volume 1 consists of the main body of the report and Appendices A, C, D, E, F, and G. Appendix B, the complete printout of the inventory database, is provided in Volumes 2 through 5. Because of its size, distribution of Appendix B has been limited.

Appendix B

Complete Printout of the Contaminant Inventory and Other Information from the CIDRA Database

(continued)

Offsite Waste Generators Not Otherwise Specified

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 40

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/03/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: AEF
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Scrap metal, combustibles, glass, and concrete.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 791.4200 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. AEC - Atomic Energy Commission, San Francisco Operations.
6. Waste stream consists of clean-up materials from Coastwise Nuclear Disposal Facility.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
21.

2. Details on physical form(particularly confinement related)
Wipes, gloves, glassware, and dry activated waste embedded in concrete.

3. Chemical form:
Glass, combustibles, and plastic.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
2. Waste stream reported as dry waste solidified in concrete, solidified liquid, and empty drums.
5. BXW and "Other". "Other" equals steel buoys, culverts, and pipes.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Coastwise declared bankruptcy and took over clean-up operations at the facility. AEC and others contacted have no knowledge of the non-radiological hazardous waste. Sodium metal is assumed to be part of the waste, but there is no method for determining volume.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Dry activated waste.	Unknown.	T 6.6660000000000	CI	1961	1961	N			
Sr-90	Dry activated waste.	Unknown.	T 6.6800000000000	CI	1961	1961	N			
Ra-226	Dry activated waste.	Unknown.	T 6.6660000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MFP converted to Sr-90 only based on reports listed in Section E.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027 - "Buried Waste Characterization: Nonradiological Hazards Study - Offsite Waste Generators". Shipping records.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Three percent error on volume from RWMIS to shipping records. RWMIS equals 769.30 m3, shipping records equal 791.42 m3.

7. Major unknowns in inventories of contaminants:
No information available, from any source, for chemical hazards. Sodium metal is believed to be present, however, volume is unknown and indeterminate.

8. Key assumptions used to deal with the unknowns:
Determination of MAP. G-M correction is needed to the best estimate. The waste stream inventory was identified by the generator as MFP and the G-M method was used by the generator to estimate total curie content.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 38

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/03/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: AEI
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radiation sources, lab waste and solidified Ce-144/Cl3 solution.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 10.4200 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. AEI - American Electronics, Inc., Los Angeles, CA.

1. General physical form (see attached list)
Radiation sources.
[X] other (specify)
15.

2. Details on physical form(particularly confinement related)
Other, lab waste, solidified Ce-144/Cl-3 and sources.

3. Chemical form:
Lab waste, solidified Ce-144/Cl3 and sources.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
13 drums w/waste cont. in concrete & Pb.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Shielding.	Lead.	T 39473.000000000	LB	1961	1961	N	31578	47368	See comment below.
7790-86-5 Cerium Chloride	Solidified liquid.	CeCl3.	T 1123.5000000000	LB	1961	1961	N	898.8	1348.2	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
No volume reported, lead and cerium chloride disposed based on calculated estimates. For lead, 13 drums have lead liners. Considered 3" liner and calculated volume, then weight of lead per drum and total. For CeCl3, calculated average weight of drum minus lead and considered 10% of remaining volume was CeCl3 (remainder is concrete). Based uncertainty on 20% error in calculated volume. Assume other sources of uncertainty are negligible by comparison.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide *	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Ce-144	Solidified solution.	Unknown.	T .90000000000000	CI	1961	1961	N	-50%	+50%	
Co-60	Metal.	Unknown.	T 4.1000000000000	CI	1961	1961	N	-50%	+50%	
Sr-90	Metal.	Unknown.	T .00000100000000	CI	1961	1961	N	-50%	+50%	
Kr-85	Metal.	Unknown.	T 1.3000000000000	CI	1961	1961	N	-50%	+50%	
Cs-137	Metal.	Unknown.	T .01300000000000	CI	1961	1961	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping manifests.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027, "Buried Waste Characterization: Nonradiological Hazards Study - Offsite Waste Generators".

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS weight off by a factor of 100 (RWMIS reports 540 lbs.) - shipping records show weight of 54,000 lbs.

7. Major unknowns in inventories of contaminants:
No hazardous volume data - volumes based on calculated estimates.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment. Assumed volume of CeCl3 per drum.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 39

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/04/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: AFM
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Co-60 source.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 2.0000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. AFM - Atlas Foundry and Machine Co., Tacoma, WA.
6. One shipment with Cobalt-60 source and packaging.

1. General physical form (see attached list)
Radiation sources.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Cobalt-60 source, some Pb as part of packaging for shielding.

3. Chemical form:
Lead shielding sources.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[X] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
4. Lead liner 3 7/8" thick.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?*	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Box liner.	Metal.	T 123.00000000000	LB	1961	1961	N	98.4	147.6	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Considering the shipment is small (164 lbs.) and the lead shielding is small, assumed lead contributed approximately 75% of total weight +/-20%. Plus or minus 20% based on unknowns such as thickness of lead, contribution to shipment and configuration of lead.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Source.	Unknown.	T .47000000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
Shipping records and waste shipment manifest. No reports on this one box shipment.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Quantity of lead in liner.

8. Key assumptions used to deal with the unknowns:
Assume lead is approximately 75% of total weight of shipment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 34

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/22/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: ATI
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Irradiated fuel and chemical by-products from nuclear reactor research.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1962

9. Waste stream volume:
Amount 1390.4900 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. ATI - Atomics International, Canoga Park, CA.

1. General physical form (see attached list)
Irradiated fuel from experiments.
[X] other (specify)
10.

2. Details on physical form(particularly confinement related)

3. Chemical form:
Fuel and metals.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Wooden box*.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
5. I and BLM.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

* Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7440-23-5 Sodium	Metal.	Unknown.	Unknown.	GM	1960	1962				See comment below.
11135-81-2 Sodium Potassium	Metal.	Unknown.	Unknown.	GM	1960	1962				See comment below.
7580-67-8 Lithium Hydride	Solid shield material.	Unknown.	Unknown.	GM	1960	1962				See comment below.
7439-92-1 Lead	Metal.	Unknown.	Unknown.	GM	1960	1962				See comment below.
7440-41-7 Beryllium	Solid.	Unknown.	Unknown.	GM	1960	1962				See comment below.
1304-56-9 Beryllium Oxide	Solid.	Unknown.	Unknown.	GM	1960	1962				See comment below.
7439-97-6 Mercury	Liquid.	Unknown.	Unknown.	GM	1960	1962				See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Reports indicate that all the above hazardous chemicals were produced or are by-products from this process. Reports also indicate that Na, NaK, and the terphenyls/diphenyls were believed to be primarily disposed of at sea or at Beatty, Nevada. All other hazardous chemicals, according to reports and interviews, are believed to have NOT been included in INEL waste shipments. If there were any additional hazardous chemicals shipped to INEL, the quantities were negligible.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Metal.	Unknown.	T 22260.000000000	CI	1960	1962	N	-50%	+50%	
Pu-239	Metal.	Unknown.	T 50.000000000000	CI	1960	1962	N	-50%	+50%	
U-235	Metal.	Unknown.	T .11400000000000	CI	1960	1962	N	-50%	+50%	
U-238	Metal.	Unknown.	T .03800000000000	CI	1960	1962	N	-50%	+50%	
U-234	Metal.	Unknown.	T 3.6350000000000	CI	1960	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MFP converted to Cs-137 based on type of materials included in shipment. Data suggests highly enriched uranium fuel based on activity ratio of U-235 to U-238. Based on the uranium enrichment curve, 96% of measured uranium activity is U-234.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report - EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Percentage of chemicals in shipments.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment. Based on reports - assume chemical constituents shipped to INEL are negligible.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 42

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/04/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: BWC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Empty stainless steel fuel rods.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 15.6300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. BWC - Babcock and Wilcox, Co., Nuclear Facilities, Lynchburg, VA.

1. General physical form (see attached list)
Unirradiated fuel from experiments.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Empty stainless steel fuel rods only with trace contamination of 93% U-235 and Th-232.

3. Chemical form:
Stainless steel with traces of U-235O2 and Th-232O2.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
None.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Th-232	Surface contamination.	ThO2.	T .00210000000000	CI	1960	1960	N	-50%	+50%	
U-235	Surface contamination.	UO2.	T .02790000000000	CI	1960	1960	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027, "Buried Waste Characterization: Nonradiological Hazards Study - Offsite Waste Generators".

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS total volume equals 18.48 m3, shipping records list volume equal to 15.63 m3.

7. Major unknowns in inventories of contaminants:
No hazardous materials included in shipment based on interviews.

8. Key assumptions used to deal with the unknowns:
Curie content reported from RWMIS matches shipping records, however, volumes do not match. No uncertainty estimate given however, and shipping record volume considered better estimate. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 41

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/07/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: BWD
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Miscellaneous lab equipment.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 13.9000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. BWD - Birdwell Division of Seismograph Serv. Corp., Tulsa, Oklahoma.

1. General physical form (see attached list)
Glass.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Glass and miscellaneous lab equipment.

3. Chemical form:
Glass and lab equipment.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Open-top 5 gal pails, polyethelene liner

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
3. No information available on chemical content, if any.
4. Open top 5-gallon pails lined with polyethylene bags.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Contaminated lab equipment.	Unknown.	T .05000000000000	CI	1963	1963	N			
Sc-46	Contaminated lab equipment.	Unknown.	T .05000000000000	CI	1963	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Disposal records.

2. Details concerning source (names, report no., dates, etc.)
Shipping manifest/waste shipment record.
No information in Clements Report EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Weight on RWMIS low by a factor of 10 based on volume of 20 5-gallon containers.

7. Major unknowns in inventories of contaminants:
No information available on hazardous materials.

8. Key assumptions used to deal with the unknowns:
Assume estimate of curie content is close to actual.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 43

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/08/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: CSC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Lab equipment, animal carcasses and feces.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1963

9. Waste stream volume:
Amount 28.7600 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. CSC - California Salvage Co., San Pedro, CA.
5. and 6. The Clement's report could not find a contact with the California Salvage Co. and consequently the waste stream is unknown other than what is reported in RWMIS. Additional information in shipping records supplies very limited data on types of waste.

1. General physical form (see attached list)
Glass.
[X] other (specify)
24, 21.

2. Details on physical form(particularly confinement related)
Limited data but does specify lab waste (glass, combustibles) and animal carcasses/feces.

3. Chemical form:
Unknown.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
114 metal drums, 38 wooden boxes.

7. Comments (specify number of pertinent question):
5. BXC.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
C-14	Contaminated lab equipment.	Unknown.	T .27510000000000	CI	1962	1963	N	-50%	+50%	
Cd-109	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	
Co-60	Contaminated lab equipment.	Unknown.	T .29850000000000	CI	1962	1963	N	-50%	+50%	
Cr-51	Contaminated lab equipment.	Unknown.	T .00880000000000	CI	1962	1963	N	-50%	+50%	
Cs-137	Contaminated lab equipment.	Unknown.	T .49850000000000	CI	1962	1963	N	-50%	+50%	
Fe-59	Contaminated lab equipment.	Unknown.	T .22840000000000	CI	1962	1963	N	-50%	+50%	
H-3	Contaminated lab equipment.	Unknown.	T .22840000000000	CI	1962	1963	N	-50%	+50%	
I-131	Contaminated lab equipment.	Unknown.	T .00880000000000	CI	1962	1963	N	-50%	+50%	
Na-22	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MAP equals 1/3 Fe-54; 1/3 S-35; 1/3 P-32; MFP equals 1/3 Tm-170; 1/3 Er-169; 1/3 Yb-164. Based on reported levels of these isotopes, yet no listing in RWMIS.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pm-147	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	
Po-210	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	
Ru-106	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	
Sr-90	Contaminated lab equipment.	Unknown.	T .02400000000000	CI	1962	1963	N	-50%	+50%	
U-235	Contaminated lab equipment.	Unknown.	T .02280000000000	CI	1962	1963	N	-50%	+50%	
Y-90	Contaminated lab equipment.	Unknown.	T .21960000000000	CI	1962	1963	N	-50%	+50%	
Fe-59	Contaminated lab equipment.	Unknown.	T .06220000000000	CI	1962	1963	N	-50%	+50%	
S-35	Contaminated lab equipment.	Unknown.	T .06220000000000	CI	1962	1963	N	-50%	+50%	
P-32	Contaminated lab equipment.	Unknown.	T .06230000000000	CI	1962	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MAP equals 1/3 Fe-54; 1/3 S-35; 1/3 P-32; MFP equals 1/3 Tm-170; 1/3 Er-169; 1/3 Yb-164. Based on reported levels of these isotopes, yet no listing in RWMIS.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Tm-170	Contaminated lab equipment.	Unknown.	T .00760000000000	CI	1962	1963	N	-50%	+50%	
Er-169	Contaminated lab equipment.	Unknown.	T .00760000000000	CI	1962	1963	N	-50%	+50%	
Yb-164	Contaminated lab equipment.	Unknown.	T .00760000000000	CI	1962	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MAP equals 1/3 Fe-54; 1/3 S-35; 1/3 P-32; MFP equals 1/3 Tm-170; 1/3 Er-169; 1/3 Yb-164. Based on reported levels of these isotopes, yet no listing in RWMIS.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping records.

2. Details concerning source (names, report no., dates, etc.)
No reports on this generator.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No data available on hazardous materials.
No confirmation information on rad isotopes (reports).

8. Key assumptions used to deal with the unknowns:
Assume RWMIS is close to accurate as possible - probably not an issue in that most isotopes have decayed numerous times since disposal. MFP/MAP determination? No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 44

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/02/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: CSM
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Magnesium fluoride slag with 1% natural U, steel metallic salts and silicates, and miscellaneous laboratory waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1962

9. Waste stream volume:
Amount 22.6000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. CSM - Colorado School of Mines, Research, Golden, CO.
6. Waste stream does not match physical form codes.
8. One 30-gallon drum weighing 320 lbs. buried in 1960. Two drums weighing 1358 lbs. buried in 11/62 and one drum weighing 833 lbs. buried in 02/62.

1. General physical form (see attached list)
Glass.
[X] other (specify)
21.

2. Details on physical form(particularly confinement related)
1. Other, irradiated rock samples and some glassware lab waste and rock samples in double drums.

3. Chemical form:
Natural uranium and lab waste.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[X] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
4. Double drums with annular space of outside drum filled with ground magnetite.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

* Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7783-40-6 Magnesium Fluoride	Slag.	MgF2.	T 300.00000000000	LB	1960	1960	N	285	315	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Shipment weight of 320 lbs. minus drum weight, slag is only item shipped in this drum (+/-5% error in weight calculation). Scintillation solutes, such as dimethyl POPOP (1,4,bis-2,5 phenyl oxazolylbenzene) in toluene may have entered in the radioactive waste stream in minute quantities, based on interviews. This volume is believed negligible and will not be estimated. This scintillation waste and other chemical waste was received at INEL through RFP and will not be reported here.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Metallic salts and rock silicates.	Unknown.	T 3.7000000000000	CI	1960	1962	N	-50%	+50%	
Cs-137	Metallic salts and rock silicates.	Unknown.	T 1.0000000000000	CI	1960	1962	N	-50%	+50%	
Fe-55	Metallic salts and rock silicates.	Unknown.	T 1.0000000000000	CI	1960	1962	N	-50%	+50%	
U-238	Metallic salts and rock silicates.	Unknown.	T 1.3200000000000	CI	1960	1962	N	-50%	+50%	
Mo-99	Metallic salts and rock silicates.	Unknown.	T 1.0000000000000	CI	1960	1962	N	-50%	+50%	
U-235	Metallic salts and rock silicates.	Unknown.	T .08000000000000	CI	1960	1962	N	-50%	+50%	
U-234	Metallic salts and rock silicates.	Unknown.	T 1.3000000000000	CI	1960	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

RWMIS reports total Ci content of 10.04 Ci. This differs by 1.0 Ci as reported by shipping records (RWMIS reports 1.0 Ci of Fe-59 which was not included in shipping records).

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping records.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027 - "Buried Waste Characterization: Nonradiological Hazards Study - Offsite Waste Generators". Shipping manifests.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Difference in 1.0 Ci reported from shipping records versus RWMIS, due to RWMIS reporting 1.0 Ci Fe-59 which is not duplicated in shipping records. Shipping records used over RWMIS.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
Determination of U-238 isotope designation for RWMIS listed number of Z-3 as 83. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 45

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: DPG
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Animal waste and laboratory waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1962

9. Waste stream volume:
Amount 25.8800 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. DPG - Dugway Proving Ground, Dugway, UT.
6. No hazardous materials were included in waste stream according to interviews and records.

1. General physical form (see attached list)
Biological waste.
[X] other (specify)
21.

2. Details on physical form(particularly confinement related)
Other - animal waste with rad. contamination.
Laboratory waste and animal waste (as stated) - lab waste includes paper, glass, and plastic.

3. Chemical form:
Animal waste, combustibles, and plastic.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Sand and concrete.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
Some small metal containers included with 55-gallon drums and boxes.

7. Comments (specify number of pertinent question):
5. BLM and BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
According to interviews and reports, hazardous materials shipped elsewhere and were not included in INEL shipments.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Contaminated clothing and lab material.	Unknown.	T 3.8130000000000	CI	1960	1962	N			
Ra-226	Contaminated clothing and lab material.	Unknown.	T 3.3330000000000	CI	1960	1962	N			
Sr-90	Contaminated clothing and lab material.	Unknown.	T 3.3360000000000	CI	1960	1962	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MFP determined to be Sr-90 based on shipping records.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-79-036, "Nonradiological Hazards Study: Offsite Waste Generators". RWMC Source Term Interviews, Lisa DeWitt, 1990.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Small discrepancy located in curie content from shipping records to RWMIS. Shipping records considered better estimate.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
Assume no hazardous chemicals included with shipments per reports and interviews. MFP determination. G-M correction is needed to the best estimate. The waste stream inventory was identified by the generator as MFP and the G-M method was used by the generator to estimate total curie content.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 47

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: FLW
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radioactive electronic tubes.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 1.0500 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. FLW - Fort Lewis, WA.

1. General physical form (see attached list)
Radiation sources.
[X] other (specify)
Radioactive electronic tubes.

2. Details on physical form(particularly confinement related)
No further information other than electronic tubes.

3. Chemical form:

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Wooden box*.

6. Other characteristics of interest:
Reports state 6 drums of various sizes. RWMIS reports boxes (wood and cardboard).

7. Comments (specify number of pertinent question):
4. No information on container liners.
5. BXC and BLM.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
No hazardous materials disposed according to reports.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Electronic tubes.	Unknown.	T .00000810000000	CI	1960	1960	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS reports 2 boxes - report states six drums; RWMIS reports 0.017 cm3 volume, report states 1.05 m3, rad. content negligible.

7. Major unknowns in inventories of contaminants:
No information on hazardous.

8. Key assumptions used to deal with the unknowns:
Assume extremely small curie content and volume can be ignored as negligible disposal from Ft. Lewis.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 24

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: GDA
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Fuel fabrication items, lab equipment, activated metal and irradiated fuel.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1963

9. Waste stream volume:
Amount 714.8200 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. GDA - General Dynamics / General Atomics Div., San Diego, CA. There are five waste streams from this site: Science Building, Building E, Linear Accelerator, Hot Cells, and Waste Processing Yard. All materials from each facility went through the Waste Processing Yard before being sent to the INEL.
6. Shipping records indicate nitric acid in cement was shipped along with organic solidified waste in capsule. Nature of organic waste cannot be determined.
7. TRU and LLW are both part of the waste stream.

1. General physical form (see attached list)
Irradiated fuel from experiments.
[X] other (specify)
5.

2. Details on physical form(particularly confinement related)
Waste contains primarily fuel fabrication items, lab equipment, and activated metal.

3. Chemical form:
Activated metal and irradiated fuel.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
I equals a single capsule (50 lbs.), as an insert was off-loaded from a shipping cask. One listing in RWMIS refers to this insert (I).

7. Comments (specify number of pertinent question):
5. BXW and I.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7697-37-2 Nitric Acid	Solidified liquid (in concrete).	HNO3.	T 1544.4000000000	LB	1961	1963	N	171	5500	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Nitric acid solidified in concrete was reported as disposed in a shipment of 220 55-gallon drums. Nitric acid is not the only item in the drums. Range of acid could be from 1 gallon per drum to 25 gallons per drum. Organic waste reported in 30 capsule inserts was disposed. No reference as to what type of organics.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-58	Primarily activated metal and lab waste.	Possibly oxides.	T 563.30000000000	CI	1961	1963	N	-50%	+50%	
Co-60	Primarily activated metal and lab waste.	Possibly oxides.	T 721.90000000000	CI	1961	1963	N	-50%	+50%	
Fe-59	Primarily activated metal and lab waste.	Possibly oxides.	T 711.20000000000	CI	1961	1963	N	-50%	+50%	
U-238	Primarily activated metal and lab waste.	Possibly oxides.	T .06000000000000	CI	1961	1963	N	-50%	+50%	
Sr-90	Primarily activated metal and lab waste.	Possibly oxides.	T 724.40000000000	CI	1961	1963	N	-50%	+50%	
Ni-59	Primarily activated metal and lab waste.	Possibly oxides.	T 340.00000000000	CI	1961	1963	N	-50%	+50%	
Th-232	Primarily activated metal and lab waste.	Possibly oxides.	T .02000000000000	CI	1961	1963	N	-50%	+50%	
U-235	Primarily activated metal and lab waste.	Possibly oxides.	T .07000000000000	CI	1961	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MAP equals Co-60, MFP equals Sr-90, based on process information, isotope suite and best guess.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report, EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Volume and concentration of nitric acid in waste stream. Volume of organics in waste stream.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment. The % of hazardous chemicals and MFP/MAP determinations.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 35

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/22/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: GDW
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Waste NOS (not otherwise specified).

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1962

9. Waste stream volume:
Amount 3.3980 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. GDW - General Dynamics, Fort Worth, TX.
5. and 6. No literature or shipping records for this generator, information solely from RWMIS.

1. General physical form (see attached list)

[X] other (specify)
Unknown.

2. Details on physical form(particularly confinement related)
Unknown.

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Cardboard box.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
1, 2, 3, and 4: No literature or shipping records for this generator, information solely from RWMIS.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

* Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No additional data available to determine presence or absence of chemical hazards.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Unknown.	Unknown.	T 2.0050000000000	CI	1962	1962	N			
Sr-90	Unknown.	Unknown.	T 2.0050000000000	CI	1962	1962	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MAP equals Co-60, MFP equals Sr-90. These are very broad assumptions based on the fact that no data (other than RWMIS) exists for this shipment.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
RWMIS is only source of information.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No information available.

8. Key assumptions used to deal with the unknowns:
Assumptions used for MAP and MFP. Accuracy of RWMIS database. G-M correction is needed to the best estimate. The waste stream inventory was identified by the generator as MFP, G-M method was used by generator to estimate total curie content.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 25

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/22/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: GEC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Core, reactor vessel and loop components.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1962

9. Waste stream volume:
Amount 6.9630 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):

1. General physical form (see attached list)
Other core, reactor vessel, loop component
[X] other (specify)
Reactor research trash.

2. Details on physical form (particularly confinement related)
Reactor loop components and associated waste.

3. Chemical form:
Activated metals.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[X] metal liner [ ] none [X] other (specify)
Cask inserts.

5. Waste container type (see attached list)
Insert.

6. Other characteristics of interest:
Shipment in casks (either lead or stainless steel).

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7697-37-2 Nitric Acid	Unknown.	Unknown.	Unknown.	GM	1961	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Physical form - unknown; annual quantity disposed - unknown. Sodium isobutyrate may have been included in wastes as a product of using Na as coolant in test capsules which reacted with isobutyl alcohol. No means of determining volume or if this was truly in shipment.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Activated metals.	Unknown.	T 626.50000000000	CI	1961	1962	N	-50%	+50%	
Cr-51	Activated metals.	Unknown.	T 139.90000000000	CI	1961	1962	N	-50%	+50%	
Fe-59	Activated metals.	Unknown.	T 626.50000000000	CI	1961	1962	N	-50%	+50%	
Ni-59	Activated metals.	Unknown.	T 6.3330000000000	CI	1961	1962	N	-50%	+50%	
U-235	Activated metals.	Unknown.	T .15700000000000	CI	1961	1962	N	-50%	+50%	
Zr-95	Activated metals.	Unknown.	T 288.90000000000	CI	1961	1962	N	-50%	+50%	
Sr-90	Activated metals.	Unknown.	T 282.00000000000	CI	1961	1962	N	-50%	+50%	
U-238	Activated metals.	Unknown.	T .82600000000000	CI	1961	1962	N	-50%	+50%	
U-234	Activated metals.	Unknown.	T 2.9510000000000	CI	1961	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MAP equals 1/2 Co-60, 1/2 Fe-59, MFP equals Sr-90, based on process information, suite of isotopes and best guess. Based on reports, assumed uranium is commercial-grade fuel. Based on this assumption, the following isotopes and their respective percentages of the total uranium curies were calculated: U-235 (4%), U-238 (21%) and U-234 (75%). Calculations based on enrichment curves.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
1) Clements Report DGG-PR-W-80-027.
2) Shipping records.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No information on hazardous chemicals and concentrations.

8. Key assumptions used to deal with the unknowns:
Assume RWMIS is relatively accurate. Assumptions made to determine MAP/MFP. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 33

1. Preparer: Jorgensen, Doug

2. Date prepared: 07/01/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: GEO
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Waste NOS (not otherwise specified).

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1967 Ending year 1967

9. Waste stream volume:
Amount 0.0736 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. GEO - General Electric Co., Cincinnati, Ohio.
6. No information exists for this generator except for RWMIS print out.

1. General physical form (see attached list)
Unknown.
[X] other (specify)
Unknown.

2. Details on physical form(particularly confinement related)
Unknown.

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Insert*.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
5. "Other" equals cask insert.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cr-51	Unknown.	Unknown.	T 90.000000000000	CI	1967	1967	N			
Fe-59	Unknown.	Unknown.	T 90.000000000000	CI	1967	1967	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No information available other than RWMIS.

8. Key assumptions used to deal with the unknowns:
Have to assume RWMIS is correct regarding radionuclides reported.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 48

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: HEW
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radium contaminated laboratory waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 94.4600 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Dept. of Health, Education and Welfare, Rad. Public Health Service, Washington D.C.

1. General physical form (see attached list)

[X] other (specify)
Lab waste.

2. Details on physical form(particularly confinement related)
Radium contaminated waste.

3. Chemical form:
Ra-226 surface contamination.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Ra-226	Surface contamination.	Salts.	T 1.0000000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Report EGG-PR-W-80-027 (Clements).

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Volumes differ from Clement's report versus RWMIS. RWMIS reports equals 120.0 m3 volume, report equals 94.46 m3.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
Assume report volume cited from Clement's Report is more accurate than RWMIS.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 49

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: ISC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Mg-Th scrap, lab equipment and sources.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 66.0400 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. ISC equals Isotope Specialties Co., Burbank, CA.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
31 and lab equipment.

2. Details on physical form(particularly confinement related)
Mg-Th scrap in 4x4x8 wooden boxes, sources and miscellaneous lab equipment in drums.

3. Chemical form:
Mg/Th metal.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-95-4 Magnesium	Mg and Th alloy.	Magnesium.	T 19882.500000000	LB	1961	1961	N	15906	23859	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Uncertainty: based on the method to arrive at a quantity for this alloy, a probable uncertainty of +/-20% was applied.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Source.	Unknown.	T 10.000000000000	CI	1961	1961	N			
Ra-226	Source.	Unknown.	T 10.000000000000	CI	1961	1961	N			
Cs-137	Irridiated metal.	Unknown.	T 10.000000000000	CI	1961	1961	N			
Th-232	Irridiated metal.	Unknown.	T .01780000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
No data in literature, used strictly RWMIS and shipping records.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Accuracy of curie content and % Mg-Th alloy in shipment.

8. Key assumptions used to deal with the unknowns:
Assumptions of Mg-Th alloy disposed of based on best estimate of volume in boxes.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 50

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: IXE
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radiation sources.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1963

9. Waste stream volume:
Amount 0.2600 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. IXE - Industrial X-Ray Engineers, Seattle, WA.

1. General physical form (see attached list)
Radiation sources.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Radiation sources, steel encased and welded shut. Most sources also included with cement.

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [X] metal liner [ ] none [X] other (specify)
Lead pig liner.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
None.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Lead pig.	Metal.	T 3044.5000000000	LB	1960	1963	N	2435.6	3653.4	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Uncertainty based on calculated error of +/-20% on weight of Pb in container. Estimate of lead based on previous percentage of lead, as lining, calculated for other offsite disposal records.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Sources.	Unknown.	T 30.500000000000	CI	1960	1963	N			
Ir-192	Sources.	Unknown.	T 100.00000000000	CI	1960	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Percentage lead in shipment.

8. Key assumptions used to deal with the unknowns:
Assume lead liner/shielding is approximately same percentage volume as calculated for other off-site generators.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 26

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/21/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: LRL
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Biological waste.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1963

9. Waste stream volume:
Amount 262.7300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. LRL - University of California, Lawrence Radiation Laboratory, Berkeley, CA.
4. and 6. Lawrence Labs split into two waste streams - one from material shipped from Berkeley and the second from processes at Livermore. The three areas from which waste was generated at Berkeley are:
1) Studies of isotopes on metabolic systems
2) Biological studies - radiation effects
3) New isotope studies.
They are included on one form because little or no information on hazardous materials are available.

1. General physical form (see attached list)
Biological waste.
[X] other (specify)
41.

2. Details on physical form(particularly confinement related)
Biological waste - animal parts and related metabolic studies on waste.

3. Chemical form:
Biological waste, isotope studies, and concrete encapsulated.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Bricks and lining.	Metal.	Unknown.	GM	1962	1963	N			See comment (a) below.
1332-21-4 Asbestos	Millboard.	Compressed board.	Unknown.	GM	1962	1963	N			See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

a. Reported that 6 drums have 5.1 cm lead lining and that a few lead bricks were used for shielding around target assemblies in drums. Consequently, lead disposed is considered negligible.

b. Asbestos mill board used in construction of glove boxes and represents less than 1 % of the total volume and as such, is negligible.

c. This same information is reported on waste stream #2 from LRL since there is no means to segregate the streams.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Be-10	Biological and lab waste.	Unknown.	T .95000000000000	CI	1962	1963	N	-50%	+50%	
Cf-252	Unknown.	Unknown.	T .01000000000000	CI	1962	1963	N	-50%	+50%	
Co-60	Biological and lab waste.	Unknown.	T 10.000000000000	CI	1962	1963	N	-50%	+50%	
Ru-106	Biological and lab waste.	Unknown.	T 1.0000000000000	CI	1962	1963	N	-50%	+50%	
Sc-46	Biological and lab waste.	Unknown.	T 1.5000000000000	CI	1962	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
RWMIS and reports do not segregate isotopes and curies for waste streams. Based on process information and best guess, isotopes and corresponding curies were assigned to the waste stream type most likely to produce these isotopes, i.e., biological waste/new isotope studies equals Cf-252, weapons testing equals Pu-239.

1. Type of source of information: (check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report, PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS? (Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Discrepancy in volume from RWMIS to reports. Total volume for both waste streams (Livermore and Berkeley) on RWMIS equals 3456 m3, reports indicate volume to be 2241.48 m3.

7. Major unknowns in inventories of contaminants:
No information on hazardous chemical volumes shipped.

8. Key assumptions used to deal with the unknowns:
Assume isotopes and curie content close to accurate on RWMIS. MFP determination. Assumptions of which isotopes belong to which waste stream. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 37

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/21/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: LRL
(building number - use code from attached list)

5. Number of waste stream from this facility:
2H

6. Waste stream:
Concrete, bricks and asphalt.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1963

9. Waste stream volume:
Amount 1978.7600 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):

1. General physical form (see attached list)
Concrete, brick, and asphalt.
[X] other (specify)
10.

2. Details on physical form(particularly confinement related)
Weapons testing.

3. Chemical form:
Metal in concrete.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Fiberglass barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
1. "Other" equals weapons testing equipment, engine fabrication and testing waste.
5. BLM and BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Bricks and shielding.	Metal.	Unknown.	GM	1962	1963	N			See comments (a,c) below.
1332-21-4 Asbestos	Millboard.	Compressed board.	Unknown.	GM	1962	1963	N			See comments (b,c) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
a. Reported that 6 drums have 5.1 cm lead lining and that a few lead bricks were used for shielding around target assemblies in drums, consequently, lead disposed is considered negligible.
b. Asbestos millboard used in construction of glove boxes and represents <1% of total volume and as such, is negligible.
c. This same information is reported on waste stream #1 from LRL since there is no means to segregate the streams.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
H-3	Activated metal.	Unknown.	T 5685.0000000000	CI	1962	1963	N	-50%	+50%	•
Pu-239	Activated metal.	Unknown.	T 449.30000000000	CI	1962	1963	N	-50%	+50%	
Pu-240	Activated metal.	Unknown.	T 449.30000000000	CI	1962	1963	N	-50%	+50%	
Sr-90	Activated metal.	Unknown.	T 1271.0420000000	CI	1962	1963	N	-50%	+50%	
Y-90	Activated metal.	Unknown.	T .02500000000000	CI	1962	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
RWMIS and reports do not segregate isotopes and curies for waste streams. Based on process information and best guess, isotopes and corresponding curies were assigned to the waste stream type most likely to produce these isotopes, i.e., biological waste, new isotope studies equals Cf-252, weapons testing equals Pu-239.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report - PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Discrepancy in volume from RWMIS to reports. Total volume for both waste streams (Livermore and Berkeley) on RWMIS equals 3456 m3, reports indicate volume to be equal to 2241.48 m3.

7. Major unknowns in inventories of contaminants:
No information on hazardous chemical volumes shipped.

8. Key assumptions used to deal with the unknowns:
Assume isotope and curie content close to accurate on RWMIS. Assumptions of which isotopes belong to which waste stream. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

Continuation of Part C Column or Question Number or Title A11.

Hazardous material may or may not have been included in INEL shipments. Some of the hazardous chemical constituents in the processing include: perchloric-nitric acid, sulfuric acid, hydrochloric acid, HCl contaminated resins and minor lead shielding. No further information on processes and volumes of this material or whether this material was even sent to the INEL. However, all materials were reported to have been solidified and encased in concrete.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 52

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: MCS
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Electronic tubes and metascopes.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1962

9. Waste stream volume:
Amount 13.4200 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. MCS - Marine Corp. Supply Center, Barstow, CA.
9. Volume differs from RWMIS (10.90 m3).

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
Metascopes and electronic tubes.

2. Details on physical form(particularly confinement related)
Electronic tubes and metascopes.

3. Chemical form:
Metal.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Tubes in cardboard boxes inside wood box

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
4. "Other" equals tubes in cardboard boxes inside wooden boxes.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Ra-226	Metal with surface contamination.	Unknown.	T .00390000000000	CI	1962	1962	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Clements Report - EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Volumes do not match from report to RWMIS.

7. Major unknowns in inventories of contaminants:
No information on hazardous (chemical) materials.

8. Key assumptions used to deal with the unknowns:
Assume, based on reports, no hazardous materials (chemical) were included in shipment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 51

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: MEI
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Probably sources.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 0.0566 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. MEI - Metallurgical Engineers, Inc., Portland, OR.
6. and 9. No information in any reports. Volume and curies from RWMIS. Small quantity of shipment would indicate that if hazardous substances are present, the amount disposed would be negligible. In addition, based on the isotopes present, it appears as though the shipment only includes sources.

1. General physical form (see attached list)
Unknown.
[X] other (specify)
Probably sources.

2. Details on physical form(particularly confinement related)
Unknown.

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No information available.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Probable source/unknown.	Unknown.	T .07000000000000	CI	1961	1961	N			
Ir-192	Probable source/unknown.	Unknown.	T .62500000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
None.

3. Do the estimates of contaminant quantities in Part C and D represent:
[ ] best estimate
[ ] worst case
[X] other
Based on RWMIS only.

4. If other than best estimate, explain why:
Based on only one source of information, may not represent best estimate.

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No information on process or hazardous materials.

8. Key assumptions used to deal with the unknowns:
Amount disposed is negligible according to RWMIS.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 8

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/02/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: MHS
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Thirty-nine Co-60 wires sealed in concrete.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 0.1416 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. MFS - Memorial Hospital of Sheridan Co., Sheridan, WY.
9. RWMIS shows 0.1136 m3 but EGG-PR-W-80-027 shows 0.14 m3 and shipping records show 0.1416 m3.

1. General physical form (see attached list)

[X] other (specify)
Co-60 wires sealed in concrete.

2. Details on physical form(particularly confinement related)
Co-60 wires sealed in concrete in a metal drum.

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
One 30-gallon drum.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Wires.	Unknown.	Unknown.	CI	1963	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Match between RWMIS and PR-W-80-027 sect 2.2.12. Part A, 9 explains a small weight mismatch.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027 Buried waste characterization:
Non-Radiological Hazards Study - Offsite Waste Generators,
Oct. 1980.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:
One hundred percent match in references except for a slight weight difference.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
None.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 9

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/07/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: NEC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Aluminum heat exchanger, and waste containing U-235 and U-238.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1962

9. Waste stream volume:
Amount 164.5500 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. NEC - Nuclear Engineering Co., Pleasanton, CA.
6. The 80 curies in the heat exchanger are not shown on RWMIS. RWMIS shows three shipments in 1961 and one in 1962, however, shipping records show one in 1961 and three in 1962.
7. TRU and LLW are marked on data sheet.
9. RWMIS shows 176.7, but shipping records account for 164.55 m3.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
2, 5, 10, 21, 22, 42.

2. Details on physical form (particularly confinement related)
Sixty-eight fiberboard boxes and 99 each 55-gallon drums. Plus one aluminum heat exchanger of 14.87 m3 containing 80 curies of MFP.

3. Chemical form:
Solid waste contained in boxes. One aluminum heat exchanger.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
There are 434.4 gms of U-235 and 1.09 kg of U-238, plus a heat exchanger which contains 80 curies of MFP.

7. Comments (specify number of pertinent question):
5. BXC, O. 99 each BLM, 68 each BXC, one "Other" (heat exchanger). RWMIS shows some wooden boxes but shipping records show all boxes to be fiberboard (BXC).
6. The 80 curies of MFP in the heat exchanger are not shown in RWMIS.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Sr-90	Solid.	Unknown.	A .83042000000000	CI	1961	1961	N	-50%	+50%	
Sr-90	Solid.	Unknown.	A 81.373220000000	CI	1962	1962	N	-50%	+50%	
U-235	Solid.	Unknown.	T 434.40000000000	GM	1962	1962	N	-50%	+50%	
U-238	Solid.	Unknown.	T 1090.0000000000	GM	1962	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping records.

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
The 80 curies of MFP were not listed in RWMIS.

7. Major unknowns in inventories of contaminants:
No information indicating hazardous chemical substances.

8. Key assumptions used to deal with the unknowns:
Based on shipping records describing MFP as Sr-90, assume all MFP is Sr-90. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 10

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/08/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: NMR
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Biological waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 3.9640 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. NMR - University of California, Lab. of Nuclear Med. and Rad. Biol., Los Angeles, CA.
6. MFP from plant uptake studies. Also, various isotopes used in biological biochemistry, radiation effects and toxicology. All contributed to the stream.
9. Weight of containers/waste (total) is 4.536E+06 grams.

1. General physical form (see attached list)
Biological waste.
[X] other (specify)
41.

2. Details on physical form(particularly confinement related)
Waste was mixed with cement and placed in drums.

3. Chemical form:
Only small or trace amounts contained in ashes.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Waste is contained in cement matrix in metal drums.

7. Comments (specify number of pertinent question):
5. Thirteen BLMs were prepared for sea disposal (voids filled). The remaining six drums were not completely void free but were filled and capped with cement.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-95-4 Magnesium	Unknown.	Unknown.	Unknown.	GM	1961	1961				See comment below.
7439-96-5 Manganese	Unknown.	Unknown.	Unknown.	GM	1961	1961				See comment below.
7631-99-4 Sodium Nitrate	Unknown.	Unknown.	Unknown.	GM	1961	1961				See comment below.
120-12-7 Anthracene	Unknown.	Unknown.	T 200.00000000000	GM	1961	1961				See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Quantity disposed, for all hazardous chemicals listed, except anthracene, is in trace amounts.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Sr-90	Surface contamination and biological uptake.	Unknown.	T .01979000000000	CI	1961	1961	N	-50%	+50%	
H-3	Surface contamination and biological uptake.	Unknown.	T .00020000000000	CI	1961	1961	N	-50%	+50%	
C-14	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
P-32	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Fe-59	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Ca-45	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Zn-65	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
I-131	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
All isotopes, except for Sr-90, H-3 and Co-60, listed as trace amounts. Sr-90 determined to be the primary MFP based on process/type of wastes in stream.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Sr-89	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Ce-144	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Y-91	Surface contamination and biological uptake.	Unknown.	Unknown.	CI	1961	1961	N	-50%	+50%	
Co-60	Surface contamination and biological uptake.	Unknown.	T .00001000000000	CI	1961	1961	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
All isotopes, except for Sr-90, H-3 and Co-60, listed as trace amounts. Sr-90 determined to be the primary MFP based on process/type of wastes in stream.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Report EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:
Good correlation between RWMIS and Report EGG-PR-W-80-027.

7. Major unknowns in inventories of contaminants:
Disposal volume of hazardous chemicals.

8. Key assumptions used to deal with the unknowns:
That small or trace amounts are considered to be unmeasurable. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 11

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/08/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: NPF
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Control rods.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 0.1700 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. NPF - Nuclear Power Field Office, Ft. Belvoir, VA. Five control rods from the SM-1 reactor container in an insert. These rods have Boron-10 dispersed in iron clad with 304 stainless steel.
9. 0.283 m3 per RWMIS, but 0.17 m3 per shipping records.

1. General physical form (see attached list)
Other core,reactor vessel,loop component
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Boron carbide (B4C) dispersed in iron and clad in type 304 stainless steel. Five of these control rods are contained in an insert.

3. Chemical form:
Boron carbide (B4C) dispersed in iron and clad with type 304 stainless steel.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Insert.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

* Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Steel alloy.	Unknown.	T 1080.0000000000	CI	1963	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
Shipping record NPFO-64-1.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Volumes are different. Activity levels are identical.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
None.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 12

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/08/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: OMC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Paper graphite clothing, steel copper crucibles and acid carboy.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 7.3300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. OMC - Oregon Metallurgical Corp., Albany, OR.
9. Was contained in nineteen each 208 L drums and one wooden crate. Total weight per RWMIS is 2.51E+06 grams. Volume per RWMIS is 7.324. Volume per report is 7.33 m3.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
16, 21.

2. Details on physical form(particularly confinement related)
Wooden crate contained steel copper crucibles and an empty acid carboy. Drums contained paper graphite clothing and metal scrap. Drums contaminated with uranium.

3. Chemical form:
N/A.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Wastes contaminated with uranium.

7. Comments (specify number of pertinent question):
5. Nineteen BLMs and 1 BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Loose contamination.	Unknown.	T .00100000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Cs-137 used for MFP based on shipping records describing type of contamination. A negligible amount of uranium is probable in shipment based on reports.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80 027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS more complete. Report does not show weight or activities.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
Assume MFP is Cs-137.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 66

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/08/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: PM1
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Resin storage tank, cement and empty tank.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1969 Ending year 1969

9. Waste stream volume:
Amount 49.9000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. PM1 - PM1 Nuclear Power Plant, Sundance AFS, Sundance, WY.
6. Each 454 liter drum contains a 208 L drum. The annulus between drums is filled with concrete.
9. Calculated value 48.1, but RWMIS shows 49.9.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
12, 41.

2. Details on physical form(particularly confinement related)
Six 208 L drums containing resin. The 208 L drums are packed inside 454 L drums with concrete between the drums.

3. Chemical form:
Magnesia 85 cement, mixed with resin in 208 liter drum.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Tank is empty.

7. Comments (specify number of pertinent question):
4. Resin/cement contained in 208 L drum. Two hudred-eight liter drum surrounded by concrete inside 454 liter drum.
5. "Other". Six each BLM and 1 each 45,420 L tank.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No means to determine chemical constituents of resin.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Solid.	Unknown.	T 16.600000000000	CI	1969	1969	N			
Sr-90	Solid.	Unknown.	T 16.600000000000	CI	1969	1969	N			
Cs-137	Solid.	Unknown.	T 16.700000000000	CI	1969	1969	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

UN-ID-B&G equals 1/3 Co-60, 1/3 Sr-90, and 1/3 Cs-137; based on best guess estimate.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027 Sect 2.2.17.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS shows 49.9 m3 volume but report shows 4.81 m3 volume.

7. Major unknowns in inventories of contaminants:
Isotope makeup of UN-ID-B&G.

8. Key assumptions used to deal with the unknowns:
Assumed UN-ID-B&G to be 1/3 Co-60, 1/3 Sr-90, and 1/3 Cs-137. G-M correction is needed to the best estimate. The waste stream inventory was identified by the generator as MFP, G-M method was used by generator to estimate total curie content.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 13

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: SAM
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Missile structural components, jet engine parts, fragments of fuel tanks, paper and ash.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 25.1400 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. SAM - SAMMA, Kelly Air Force Base, TX. BOMARC missile cleanup. Missile debris, ash and sand. (10.79 m3) in two jet engine cans and 69 steel drums containing scrap metal, paper, ash and dirt (14.35 m3).
6. Missile debris consists of magnesium-thorium structural components, aluminum electronic guidance components, ram jet engine parts and fragments of stainless steel fuel tanks. Some plutonium.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
17, 43, 46.

2. Details on physical form(particularly confinement related)
Loose debris in two jet engine containers and 69 drums.

3. Chemical form:
Magnesium/thorium structural components.
Some plutonium. All solid.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Maybe some water.

7. Comments (specify number of pertinent question):
5. "Other" (2 each) and BLM (69 each).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Th-232	Solid.	Unknown.	T .01960000000000	CI	1961	1961	N			
Pu-239	Solid.	Unknown.	T .17640000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No curie content but readings with PAC-15 vary from 50K to 550K CPM alpha in drums, according to shipping papers. RWMIS shows combined curie content of 0.196 fpr 25.14 m3 volume. That is the combined volume of 69 drums and two engine cans. Assumed RWMIS activity to be divided: 90% Pu-239 and 10% Th-232.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping records.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Radiological levels, if any, in two engine cans.

8. Key assumptions used to deal with the unknowns:
Only low level radioactive waste is present.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 23

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: SAM
(building number - use code from attached list)

5. Number of waste stream from this facility:
2H

6. Waste stream:
Reactor shield, miscellaneous metals (magnesium alloy, copper, tin, aluminum, and stainless steel) insulation, rubber, plastic, paper, glass, wire, dirt, wood, concrete, and ash.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1961

9. Waste stream volume:
Amount 73.1300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. SAM - SAMMA, Kelly Air Force Base, TX. One reactor shield, 119 each 208L drums. Drums contained various irradiated materials. One drum contained a magnesium alloy with 3% thorium and 1% zinc. One steel box containing various irradiated materials.
6. Irradiated materials consist of: copper, steel, tin, aluminum, stainless steel, insulation, rubber, plastic, paper, glass, wire, dirt, wood, concrete and ashes.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
17, 21, 43, 44, 45 and fiberglass insulation.

2. Details on physical form(particularly confinement related)
All debris contained in 208L drums plus one steel box. The reactor shield was separate.

3. Chemical form:
Magnesium fines possibly present.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
The reactor shield contained several filled water tanks.

7. Comments (specify number of pertinent question):
5. BXM and "Other". One hundred-nineteen each BLM, one BXM, and one "Other", a reactor shield weighing 36,000 lbs. (47.3 m3), consisting of stainless steel and lead.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-95-4 Magnesium	Fines.	Unknown.	Unknown.	GM	1960	1961				
7439-92-1 Lead	Solid.	Metal.	Unknown.	GM	1960	1961				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No means to determine volume/quantity of hazardous chemicals in shipment.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?*	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Unknown.	Unknown.	T .09700000000000	CI	1960	1960	N			
Cs-137	Unknown.	Unknown.	T .09700000000000	CI	1960	1960	N			
Pu-239	Unknown.	Unknown.	T .10000000000000	CI	1961	1961	N			
Cs-137	Unknown.	Unknown.	T .09600000000000	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MFP equals Cs-137 based on process information.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Specific volume of hazardous chemicals.

8. Key assumptions used to deal with the unknowns:
One hundred-eighteen drums contained uniform amounts. One drum contained magnesium alloy fines.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION   HDT - 14

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: SSD
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radio transmitting and receiving sets, switchboards, tubes, plastic, electric instruments, and cobalt resinate.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 1.8400 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. SSD - Sacramento Signal Depot, Commanding General, Sacramento, CA.

1. General physical form (see attached list)
Radiation sources.
[X] other (specify)
42.

2. Details on physical form(particularly confinement related)
Vacuum tubes and electrical instruments. Cobalt resinate.

3. Chemical form:
One box of solid resinate.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Resinate.	Unknown.	T .00200000000000	CI	1960	1960	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Isotope of cobalt.

8. Key assumptions used to deal with the unknowns:

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 15

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: TCC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Rags, wipes, tape, concrete, graphite and solvent.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 2.1200 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. TCC - Thiokol Chemical Corp., Brigham City, UT. Cleanup waste from an incident involving a Co-60 radiographic camera.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
16, 41.

2. Details on physical form(particularly confinement related)
Items contained in wooden box.

3. Chemical form:
Small amount of solvent on paper wipes.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Surface contamination.	Unknown.	T .00100000000000	CI	1960	1960	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Solvent volume and type unknown. Stated as "small amount" in reports.

8. Key assumptions used to deal with the unknowns:
Minimal to no remaining volume involved.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 16

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UAC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Radioactive tube waste packed in cement.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 1.8400 Units Cubic meters.
Check box: [ ] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. UAC - U.S. Army Chemical Center, Maryland.
9. Weight is 6.278E+05 grams. RWMIS shows 1.037, but shipping records show 1.84 m3.

1. General physical form (see attached list)
Radiation sources.
[X] other (specify)
41.

2. Details on physical form(particularly confinement related)
Contained in a BLM.

3. Chemical form:
Solid tubes in cement.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
Shipping records CC-61-1 (dl).

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS shows 1.037 m3, but shipping papers show 1.84 m3.

7. Major unknowns in inventories of contaminants:
What isotopes, if any, are involved. Shipping papers and RWMIS indicate no radioactivity measured.

8. Key assumptions used to deal with the unknowns:
Very little, if any radioactivity, and is well contained in cement in drums.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 67

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/09/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UBM
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Ore processing wastes (includes rare earth elements, U_3O_8, Fe_2O_3, ThO_2, uranium chlorides, and iron oxides).

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1963

9. Waste stream volume:
Amount 22.9800 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. UBM - U.S. Bureau of Mines, Albany, OR.
6. Additional wastes include thorium, thorium oxide and chlorinated residuals from another process. Additionally, wastes from radioactive tracer consists of bench top filter paper, metal chlorides (probably $FeCl_2$) and a small jar of waste oxides containing Y-91. Furnace wastes contain fines and turnings, some of which may be oxides or pyrophoric metal in two 208 L drums. Various process hardware (blower, filters, tank and a vacuum cleaner).
9. RWMIS shows 22.98 m3. Shipping records show at least 19.19 m3, but how much more is not known.

1. General physical form (see attached list)
Reactive metals.
[X] other (specify)
6, 10, 11, 16, 21, 23, 41, 42.

2. Details on physical form(particularly confinement related)
Most is solid, although there may be some liquids. All boxes are sealed, taped, and painted. All barrels are sealed.

3. Chemical form:
Thorium and uranium oxides; thorium chloride and thorium oxalate. Depleted uranium oxide and alloy; YO2; thorium and uranium carbide; uranium chloride.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Wooden box.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BLM. Shipping records show 31 BXW and 8 BLM - RWMIS shows 28 BXW and 6 BLM.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Th-232	Solid.	Oxide.	T .31420000000000	CI	1961	1963	N	-50%	+50%	
Y-91	Solid.	Oxide.	T .31420000000000	CI	1961	1962	N	-50%	+50%	
Cl-36	Solid.	Unknown.	T .31420000000000	CI	1961	1962	N	-50%	+50%	
U-238	Solid.	Alloy.	T .21994000000000	CI	1961	1961	N	-50%	+50%	
C-14	Solid.	Unknown.	T .31420000000000	CI	1961	1962	N	-50%	+50%	
Th-232	Solid.	Chloride.	T .31420000000000	CI	1961	1963	N	-50%	+50%	
Th-232	Solid.	Oxalate.	T .31420000000000	CI	1961	1961	N	-50%	+50%	
Th-232	Solid.	Carbide.	T .31420000000000	CI	1962	1962	N	-50%	+50%	
U-238	Solid.	Alloy.	T .08797600000000	CI	1961	1961	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Per RWMIS. Not all curie contents listed in shipping records. Assumed activity to be equally divided among the constituents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-235	Solid.	Alloy.	T .00628400000000	CI	1961	1961	N	-50%	+50%	
U-235	Solid.	Carbide.	T .00094260000000	CI	1962	1962	N	-50%	+50%	
U-234	Solid.	Carbide.	T .15081600000000	CI	1962	1962	N	-50%	+50%	
U-238	Solid.	Carbide.	T .15385800000000	CI	1962	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Per RWMIS. Not all curie contents listed in shipping records. Assumed activity to be equally divided among the constituents.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
Report PR-W-80-027, sect 2.2.2
Shipping Records USBM-61-1, 62-1, 62-2, 63-1 & 63-1a.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Volume per RWMIS is 22.98 m3. Volume per shipping records is 19.19 m3. RWMIS shows 6.04E+06 gms, shipping records show 1.65E+06 gms. (Many entries had no weight shown and some with no volume shown.)

7. Major unknowns in inventories of contaminants:
Activity of each isotope.

8. Key assumptions used to deal with the unknowns:
Activity distributed evenly throughout. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 17

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UEA
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Paper, disposable syringes, glass, plastic containers, and animal carcasses.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 0.8300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. UEA - U.S. Army Edgewood Arsenal, Edgewood Arsenal, Maryland.
9. Six hundred pounds (272.4 kg) total weight per RWMIS. Only four drums were received per shipping records. Volumes agree.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
24, 42, 44.

2. Details on physical form(particularly confinement related)
All waste is solid and contained in plastic bags in 55-gallon steel drums. (Four drums total.)

3. Chemical form:
Solid.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
H-3	Solid.	Unknown.	T .02857000000000	CI	1963	1963	N	-50%	+50%	
C-14	Solid.	Unknown.	T .02857000000000	CI	1963	1963	N	-50%	+50%	
P-32	Solid.	Unknown.	T .02857000000000	CI	1963	1963	N	-50%	+50%	
Co-60	Solid.	Unknown.	T .02857000000000	CI	1963	1963	N	-50%	+50%	
Sr-85	Solid.	Unknown.	T .02857000000000	CI	1963	1963	N	-50%	+50%	
Sr-90	Solid.	Unknown.	T .02858000000000	CI	1963	1963	N	-50%	+50%	
I-131	Unknown.	Solid.	T .02857000000000	CI	1963	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Highest radiation level at outside of drums is 1 mR/hr. Shipping records list a total of 0.20 curies for H-3, C-14, P-32, Co-60, Sr-85, Sr-90, and I-131. Curies averaged over all isotopes listed.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping papers USA-EA-63-1.

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Shipping records show 20 millicuries. RWMIS shows 20 curies.

7. Major unknowns in inventories of contaminants:
Concentrations of individual isotopes.

8. Key assumptions used to deal with the unknowns:
Uniform activity levels of all drums and contents and averaging of curies reported over several isotopes. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 18

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/10/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UNR
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Laboratory waste (paper wood, glassware, empty bottles, etc.), Co-60 sources, Sr-90 sources, and H-3.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 8.0400 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. UNR - U.S. Navel Radiological Defense, San Francisco, CA.
6. Waste is in cardboard boxes in plastic bags inside the concrete block with a concrete cap. May include animal carcasses (rats and mice), blood and feces, scintillation vials, small quantities (1 liter containers) of fuming nitric acid, and titanium H-3 accelerator targets. Nitric acid containers are inside another container with absorbent material (calcium silicate).

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
7, 13, 15, 24, 31, 44.

2. Details on physical form(particularly confinement related)
Loose items in BXCs in plastic bags, or in bottles sealed with plaster of paris, inside other container with absorbent.

3. Chemical form:
Liquid fuming nitric acid in bottle in another container with absorbent.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Poly bottles with absorbent.

5. Waste container type (see attached list)
Other.

6. Other characteristics of interest:
Co-60 sources in lead. Sr-90 sources in plaster of paris.

7. Comments (specify number of pertinent question):
5. "Other" equals concrete block.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7697-37-2 Nitric Acid	Fuming/liquid in absorbent.	Unknown.	Unknown.	GM	1963	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Fuming nitric acid is not confirmed to be in this shipment. No indication of how much lead shielding around sources may be in shipment.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Sources.	Unknown.	T 15.300000000000	CI	1963	1963	N	-50%	+50%	
Sr-90	Sources.	Unknown.	T 3.0200000000000	CI	1963	1963	N	-50%	+50%	
H-3	Accelerator targets.	Unknown.	T 10.000000000000	CI	1963	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Volumes or concentrations of chemical hazards, and whether biological waste was included in waste stream.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 53

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/03/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UOU
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Biological waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1960

9. Waste stream volume:
Amount 710.0000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. UOU - University of Utah.
9. Two shipments received, the first in 12/60 of 338 cu ft. and the second in 9/62 of 372 cu ft.

1. General physical form (see attached list)
Biological waste.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Biological waste. Radioactive excreta and animal carcasses mixed in concrete. Waste in drums, paint cans, and card board boxes.

3. Chemical form:
Biological waste.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
5. BXC. Total of 85 55-gallon drums, 10 5-gallon paint cans and 3 cardboard boxes (cardboard boxes contain dry paper waste).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
50-00-0 Formaldehyde	Animal carcasses and feces.	Unknown.	T 83.200000000000	LB	1960	1962	N	45.4	121	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Best estimate of formaldehyde mass contained in embalmed animals for 55-gallon containers only. Best estimate of 3-8 % of total mass. Toluene and nitric acid represents <1% of mass based on reports and understanding of process. Based on this low mass, estimates of these masses will not be determined.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Sr-90	Animal carcasses and feces.	Unknown.	T .00200000000000	CI	1960	1960	N	-50%	+50%	
Sr-90	Animal carcasses and feces.	Unknown.	T .01000000000000	CI	1962	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027, "Buried Waste Characterization: Nonradiological Hazards Study - Offsite Waste Generators". Direct shipping records.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS reports total of 0.022 Ci, shipping records specify total of 0.012 Ci. Volume reported in RWMIS does not match shipping records. Shipping records equal 2.011 m3, RWMIS equals 2.752 m3.

7. Major unknowns in inventories of contaminants:
No information on volumes of hazardous materials.

8. Key assumptions used to deal with the unknowns:
Assume understanding of waste-generating process and actual disposal records are better estimate over RWMIS. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 19

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/14/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: UOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Animals, animal tissue, isotopic solutions, evaporated residues, paper, syringes, clothing, laboratory glassware, planchets, benzene, carbon tetrachloride, methyl alcohol and other biomedical waste.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1963

9. Waste stream volume:
Amount 12.9700 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. UOW - University of Washington, Radiological Safety Division, Seattle, WA.

1. General physical form (see attached list)
Biological waste.
[X] other (specify)
21.

2. Details on physical form(particularly confinement related)
Animal carcasses were wrapped in plastic or butcher paper and placed in drums. Other items were placed in drums.

3. Chemical form:
Minute amounts of isotopic solutions.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
2. Tissue experiments conducted may have involved the use of 14C, Diphtheria, Poliovirus and New Castle virus. Although it is not known if this type of waste was in the waste stream, it is believed the waste would have been deactivated prior to disposal.
4. Carcasses were wrapped in plastic or butcher paper. Other items are unknown.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-49-5 3-Methylcholanthrene	Unknown.	Unknown.	Unknown.	GM	1960	1963	N			
55914 Diisopropylfluorophosphate	Unknown.	Unknown.	Unknown.	GM	1960	1963	N			
71-43-2 Benzene	Unknown.	Unknown.	Unknown.	GM	1960	1963	N			
56-23-5 Carbon Tetrachloride	Unknown.	Unknown.	Unknown.	GM	1960	1963	N			
67-56-1 Methyl Alcohol	Unknown.	Unknown.	Unknown.	GM	1960	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
All quantities are unknown.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
H-3	Unknown.	Unknown.	T .04800000000000	CI	1960	1963	N	-50%	+50%	
C-14	Unknown.	Unknown.	T .04800000000000	CI	1960	1963	N	-50%	+50%	
Cr-51	Unknown.	Unknown.	T .01200000000000	CI	1963	1963	N	-50%	+50%	
Fe-55	Unknown.	Unknown.	T .01200000000000	CI	1963	1963	N	-50%	+50%	
Fe-59	Unknown.	Unknown.	T .01200000000000	CI	1963	1963	N	-50%	+50%	
Co-60	Unknown.	Unknown.	T .55300000000000	CI	1963	1963	N	-50%	+50%	
Zn-65	Unknown.	Unknown.	T .01200000000000	CI	1963	1963	N	-50%	+50%	
Sr-90	Unknown.	Unknown.	T .04800000000000	CI	1960	1963	N	-50%	+50%	
I-131	Unknown.	Unknown.	T .01200000000000	CI	1963	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MAP equals Co-60 and MFP equals Cs-137 based on process information.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Unknown.	Unknown.	T .532000000000000	CI	1960	1963	N	-50%	+50%	
Pm-147	Unknown.	Unknown.	T .012000000000000	CI	1963	1963	N	-50%	+50%	
Hg-203	Unknown.	Unknown.	T .012000000000000	CI	1963	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
MAP equals Co-60 and MFP equals Cs-137 based on process information.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Amounts of chemical hazards are unknown, but minute.

8. Key assumptions used to deal with the unknowns:
Minute amounts are contained in biological tissue samples. MFP/MAP determination. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 20

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/14/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: USC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Resin filled demineralizers.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1963 Ending year 1963

9. Waste stream volume:
Amount 0.1400 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. USC - USARAL Support Command and Fort Richardson, Seattle, WA.
9. According to the shipping records, the volume of both buried demineralizers was 0.1 m3 (0.05 each). The shipping casks were not buried but were returned. The RWMIS shows 0.7362 m3.

1. General physical form (see attached list)
Resin.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Solid resin inside stainless steel demineralizers. Not immobilized but contained.

3. Chemical form:

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Other.

6. Other characteristics of interest:
The containers (2 each) are small stainless steel demineralizers.

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
No means to determine type of solidified resin that was disposed.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Solid.	Unknown.	T .01670000000000	CI	1963	1963	N	-50%	+50%	
Sr-90	Solid.	Unknown.	T .01670000000000	CI	1963	1963	N	-50%	+50%	
Cs-137	Solid.	Unknown.	T .01670000000000	CI	1963	1963	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
25 mCi per demineralizer per shipping records. Assumed chemical NOS to include UN-ID-B&G, which was divided 1/3 Co-60, 1/3 Sr-90 and 1/3 Cs-137.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping records.

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Volumes conflict (see A.10).

7. Major unknowns in inventories of contaminants:
What specific chemicals are involved. Shipping records just say "chemical NOS".

8. Key assumptions used to deal with the unknowns:
Determination of isotopes based on assumptions of typical isotopes found with this type of waste stream. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 21

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/14/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: USN
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Animal carcasses, waste paper towels, glassware, tools and similar laboratory items.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1963

9. Waste stream volume:
Amount 227.5000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
9. RWMIS shows 227.5, but shipping records show 154.63.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
15.

2. Details on physical form(particularly confinement related)
The animal carcasses are pickled in formaldehyde inside plastic bags in 55-gallon drums. The lab waste is in double plastic bags in boxes or drums.

3. Chemical form:
Animal carcasses in formaldehyde. Other waste is dry solid.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Cardboard box*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BLM (18 each) and BXC (1488 each).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
50-00-0 Formaldehyde	Liquid.	Unknown.	T 225.00000000000	LB	1963	1963	N	207	243	Three to 8 % of 495.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Assumed 5.5 % of volume of carcasses in 9 each 55-gallon drums was formaldehyde.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Unknown.	Unknown.	T 73.240000000000	CI	1961	1963	N	-50%	+50%	See comment below.
Co-60	Unknown.	Unknown.	T 73.240000000000	CI	1961	1963	N	-50%	+50%	See comment below.
Sr-90	Unknown.	Unknown.	T 44.590000000000	CI	1960	1962	N	-50%	+50%	See comment below.
Po-210	Unknown.	Unknown.	T 51.680000000000	CI	1961	1962	N	-50%	+50%	See comment below.
Ra-226	Unknown.	Unknown.	T 43.340000000000	CI	1961	1962	N	-50%	+50%	See comment below.
Ir-192	Unknown.	Unknown.	T 3.3600000000000	CI	1961	1961	N	-50%	+50%	See comment below.
Ba-137m	Unknown.	Unknown.	T 3.3600000000000	CI	1961	1961		-50%	+50%	See comment below.
Sb-124	Unknown.	Unknown.	T 3.3600000000000	CI	1961	1961	N	-50%	+50%	See comment below.
Tm-170	Unknown.	Unknown.	T 3.3600000000000	CI	1961	1961	N	-50%	+50%	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Note: Most values were stated as "less than". This summary removes the "less than" and uses the maximum value. The total shipped is assumed to be half of the maximum value. The C-14 is contained in 9 drums of animal carcasses.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Y-90	Unknown.	Unknown.	T 1.2500000000000	CI	1960	1960	N	-50%	+50%	See comment below.
C-14	Unknown.	Unknown.	T .00300000000000	CI	1963	1963	N	-50%	+50%	See comment below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Note: Most values were stated as "less than". This summary removes the "less than" and uses the maximum value. The total shipped is assumed to be half of the maximum value. The C-14 is contained in 9 drums of animal carcasses.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[ ] best estimate
[X] worst case
[ ] other

4. If other than best estimate, explain why:
Used worse case curie values off shipping records.

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS shows 772 curies, 227.5 m3 for volume and 4.832E+07 grams. Shipping records show 601.5 curies, 154.6 m3 and 1.8E+07 grams.

7. Major unknowns in inventories of contaminants:
Curie content of the various isotopes. Formaldehyde concentration was unknown.

8. Key assumptions used to deal with the unknowns:
Assumed worst case for radionuclide inventory but still don't know curie content for each isotope. Assumed 3-8% of contents of drum was due to formaldehyde. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 22

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/14/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: WCC
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Paper rags, furnace coke, carbon baffles, wax brick refractory and small hand tools.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1961 Ending year 1961

9. Waste stream volume:
Amount 4.5300 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. WCC - Wan Chang Corp., Albany, OR.

1. General physical form (see attached list)
Concrete, brick, and asphalt.
[X] other (specify)
16, 44, brick, refractory, wax and furnace coke.

2. Details on physical form(particularly confinement related)
Loose items packed in 114L drums.

3. Chemical form:

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [X] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
All materials contaminated with thorium.

7. Comments (specify number of pertinent question):
5. Forty each 114 liter BLMs.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Th-232	Solid.	ThO2.	Unknown.	CI	1961	1961	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

RWMIS lists MFP but the only radionuclide discussed is thorium. (RWMIS is in error.) Zero curies listed in RWMIS.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [ ] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
EGG-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
RWMIS lists MFP, but records show no MFPs.

7. Major unknowns in inventories of contaminants:
If there are truly no curies in this waste stream.

8. Key assumptions used to deal with the unknowns:

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 68

1. Preparer: Jorgensen, Doug

2. Date prepared: 06/14/93

3. Generator: OFF
(area or contractor - use code from attached list)

4. Particular facility: WSU
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Bird, animal and crayfish carcasses. Kim wipes, paper towels, gloves, aluminum and stainless steel plackets.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1962 Ending year 1962

9. Waste stream volume:
Amount 2.1500 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. WSU - Washington State University, Pullman, WA.
6. Hazardous materials included small amounts of petroleum ether and ethanol/methanol mixtures, ATP (adenosinetriphospate), dimethyl POPOP (1,4, bis 2,5 phenyloxazolyl benzene), ethanol/toluene and magnesium. Uranium compounds (elemental, oxide and chloride forms) and magnesium oxide were also present.
9. 1.67 per RWMIS, 2.15 calculated from shipping records.

1. General physical form (see attached list)
Biological waste.
[X] other (specify)
13, 14, 21, 42, 44.

2. Details on physical form(particularly confinement related)
Bird and animal carcasses, with a variety of tracers (C-14, Na-22, Cl-36, Ca-45, H-3, P-32, and I-131). Lab waste (paper, kim wipes, gloves, beakers, etc.) UCL4Mg from a metallurgical experiment.

3. Chemical form:
Trace amounts of contaminants in the carcasses and lab waste.

4. Inner packaging: [ ] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
Boxes and plastic bags. See 7 below.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Boxes and plastic bags. Boxes inside a 0.004 inch poly wrap.
5. Eight each BLMs.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
64175 Ethyl Alcohol	Animal/bird/fish carcasses.	Unknown.	Unknown.	GM	1962	1962	N			See comment below.
67-56-1 Methyl Alcohol	Animal/bird/fish carcasses.	Unknown.	Unknown.	GM	1962	1962	N			
1806-34-4 1,4-Bis(5-Phenyloxazol-2-YL)Be	Animal/bird/fish carcasses.	Unknown.	Unknown.	GM	1962	1962	N			
108-88-3 Toluene	Animal/bird/fish carcasses.	Unknown.	Unknown.	GM	1962	1962	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
CAS #: 1806-34-4: 1,4 bis 2,5 phenyloxazolyl benzene (Dimethyl POPOP). Total quantity disposed is unknown, but small amounts.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
H-3	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
C-14	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
P-32	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
S-35	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Ca-45	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Co-60	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Zn-65	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Sr-85	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Rb-86	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Distribution of contaminants is unknown. Assumed uniform distribution.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
I-131	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Cs-137	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Ce-144	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Pm-147	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
Tl-204	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	
U-238	Animal carcasses and lab waste.	Unknown.	T .00066670000000	CI	1962	1962	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Distribution of contaminants is unknown. Assumed uniform distribution.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Shipping record.

2. Details concerning source (names, report no., dates, etc.)
EGG-PR-W-80-027.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Curies of individual isotopes. Volume of hazardous chemical constituents.

8. Key assumptions used to deal with the unknowns:
Assumed uniform distribution. No G-M correction is needed to the best estimate. The waste stream curie content was determined by the generator's analytical methods prior to shipping. The list of radionuclides that contribute to the total curie content, based on the process, was provided on the shipping records. Upper and lower bounds are estimated based on waste expert's judgment.

Waste Disposed of on Pad A

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 345

1. Preparer: Rhodes, Donald W.

2. Date prepared: 11/10/94

3. Generator: PDA
(area or contractor - use code from attached list)

4. Particular facility: INEL
(building number - use code from attached list)

5. Number of waste stream from this facility:
1A

6. Waste stream:
Fuel production scrap and miscellaneous wastes from laboratory and plant operations.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1972 Ending year 1978

9. Waste stream volume:
Amount 472.6000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
7. Waste contains uranium and concentrations of plutonium at <10 nCi/g except for one shipment that reportedly contained plutonium at >100 nCi/g. Includes Pad A waste from INEL generators: ANL, ARA, ICPP, NRF, SPERT, TAN, and TRA.

1. General physical form (see attached list)
Unirradiated fuel from experiments.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Generally counting sources, depleted uranium oxide: plates, scrap fuel pieces, lab waste, wood, paper, plastic, metal, crucibles, and fission counting foils.

3. Chemical form:
Generally oxides.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
1. Also 21 (combustibles: paper, cloth, wood, etc.) and 31 (radiation sources).
5. Also BXW, "Other", and BXC.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Occluded in waste.	Probably oxide.	T .00029600000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-239	Occluded in waste.	Probably oxide.	T .05600000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-240	Occluded in waste.	Probably oxide.	T .06200000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-241	Occluded in waste.	Probably oxide.	T .07600000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-242	Occluded in waste.	Probably oxide.	T .00000013900000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Th-232	Occluded in waste.	Probably oxide.	T .00002790000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
U-234	Occluded in waste.	Probably oxide.	T .08000000000000	CI	1972	1978	N	-50%	+50%	See comment (b) below.
U-235	Occluded in waste.	Probably oxide.	T .00590000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (b) below.
U-238	Occluded in waste.	Probably oxide.	T .07850000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

a. Includes waste from ANL, ARA, ICPP, NRF, SPERT, TAN and TRA. Values for the radionuclides were obtained from RWMIS.

b. Includes waste from ANL, ARA, ICPP, NRF, SPERT, TAN and TRA. These values were reported as MFP, unidentified Beta, Gamma and MAP in RWMIS. The unidentified Beta, Gamma and MFP were assumed to be Cs-137. The MAP was assumed to be Co-60. The U-234 activity includes that associated with the indicated activities of U-235 and U-238 for depleted uranium, as well as 0.0000112 Ci indicated in RWMIS.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Occluded in waste.	Probably oxide.	T .21400000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (b) below.
Co-60	Occluded in waste.	Probably oxide.	T 1.8000000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

a. Includes waste from ANL, ARA, ICPP, NRF, SPERT, TAN and TRA. Values for the radionuclides were obtained from RWMIS.

b. Includes waste from ANL, ARA, ICPP, NRF, SPERT, TAN and TRA. These values were reported as MFP, unidentified Beta, Gamma and MAP in RWMIS. The unidentified Beta, Gamma and MFP were assumed to be Cs-137. The MAP was assumed to be Co-60. The U-234 activity includes that associated with the indicated activities of U-235 and U-238 for depleted uranium, as well as 0.0000112 Ci indicated in RWMIS.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
RWMIS and a report, "RI/FS for Pad A, Operable Unit 7-12, WAG 7", RWMC, INEL, EGG-WM-9967, Rev. 1, Vol. 1, V.E. Halford, et al., July 1993.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Measurements of the concentrations of uranium and plutonium that were made in that time period were probably not highly reliable.

8. Key assumptions used to deal with the unknowns:
Assumed that the reported concentration values are adequate.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 344

1. Preparer: Rhodes, Donald W.

2. Date prepared: 11/09/94

3. Generator: PDA
(area or contractor - use code from attached list)

4. Particular facility: RFO
(building number - use code from attached list)

5. Number of waste stream from this facility:
1A

6. Waste stream:
Inorganic salts (nitrates, sulfates, chlorides and phosphates), depleted uranium, and some sewage sludge.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1972 Ending year 1978

9. Waste stream volume:
Amount 9772.0000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
7. The radionuclides are actinide elements, normally in concentrations <10 nCi/g. A few shipments (approximately 14) had concentrations between 10 and 100 nCi/g, and one shipment slightly exceeded 100 nCi/g. All of this waste was produced at the Rocky Flats Operation and shipped to the INEL for disposal.

1. General physical form (see attached list)
Sludge.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Salt cakes in drums and boxes with cement added to sorb liquid when it was present.

3. Chemical form:
Sodium and potassium nitrates, sulfates and phosphates. Uranium oxide.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
The dried salts were packaged in the containers as tightly as possible by hand tamping.

7. Comments (specify number of pertinent question):
1. Also 14 (evaporated salts).
2. Miscellaneous waste solids such as HEPA filters, paper wipes, graphite molds and crucibles and small tools and casting residues, sometimes contaminated with beryllium and beryllium oxide, were placed in plastic bags and sometimes added to the boxes or drums containing the salt waste.
5. Also BXW. Prior to September, 1975, the salts were packaged in 55-gallon drums. After this date, 4x4x7 ft. wooden boxes were used.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7631-99-4 Sodium Nitrate	Salt cake.	NaNO3.	T 273000000.00000	GM	1972	1978	N		546000000.	See comment (a) below.
7757-79-1 Potassium Nitrate	Salt cake.	KNO3.	T 1370000000.0000	GM	1972	1978	N		2740000000	See comment (a) below.
7647-14-5 Sodium Chloride	Salt cake.	NaCl.	T 121000000.00000	GM	1972	1978	N		242000000.	See comment (a) below.
7447-40-7 Potassium Chloride	Salt cake.	KCl.	T 60500000.000000	GM	1972	1978	N		121000000.	See comment (a) below.
7757-82-6 Sodium Sulfate	Salt cake.	Na2SO4.	T 121000000.00000	GM	1972	1978	N		242000000.	See comment (a) below.
7778-80-5 Potassium Sulfate	Salt cake.	K2SO4.	T 60500000.000000	GM	1972	1978	N		121000000.	See comment (a) below.
10101-89-0 Sodium Phosphate	Salt cake.	NaPO4.	T 60500000.000000	GM	1972	1978	N		121000000.	See comment (a) below.
7778-77-0 Potassium Phosphate	Salt cake.	K3PO4.	T 30500000.000000	GM	1972	1978	N		61000000.0	See comment (a) below.
10588-01-9 Sodium Dichromate	Salt cake.	NaCr2O7.	T 3070000.0000000	GM	1972	1978	N		6140000.00	See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

a. This data assumes that the salts contain 60% sodium nitrate, 30% potassium nitrate, and 10% miscellaneous compounds. An analysis of one drum of salts from Pad A showed small amounts of chlorides, sulfates, phosphates, fluorides, and nitrites. Since this data are only from one sample, from one drum, it is not representative. The 10% miscellaneous was assumed to consist of 4% chloride, 4% sulfates, and 2% phosphates. It is assumed that the total amount of these salts on Pad A is 4.55E+09 grams.

b. The one sample of the salt on Pad A showed chromium at 400 mg Cr/kg. It is assumed that this would exist as sodium and potassium dichromate. The amounts calculated would give 400 mg Cr/kg of salt in 455E+09 grams of salt.

c. A letter from T.L. Clements to R.M. Brown (1985) indicates that some of the beryllium was probably disposed of on Pad A between 1972 and 1978. The specific quantity of Be or BeO in the waste on Pad A is unknown.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?*	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7778-50-9 Potassium Dichromate	Salt cake.	K2Cr2O7.	T 1700000.0000000	GM	1972	1978	N		3400000.00	See comment (b) below.
7440-41-7 Beryllium	Solid.	Metal or oxides.	Unknown.	GM	1972	1978	N		2000000.00	See comment (c) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

a. This data assumes that the salts contain 60% sodium nitrate, 30% potassium nitrate, and 10% miscellaneous compounds. An analysis of one drum of salts from Pad A showed small amounts of chlorides, sulfates, phosphates, fluorides, and nitrites. Since this data are only from one sample, from one drum, it is not representative. The 10% miscellaneous was assumed to consist of 4% chloride, 4% sulfates, and 2% phosphates. It is assumed that the total amount of these salts on Pad A is 4.55E+09 grams.

b. The one sample of the salt on Pad A showed chromium at 400 mg Cr/kg. It is assumed that this would exist as sodium and potassium dichromate. The amounts calculated would give 400 mg Cr/kg of salt in 455E+09 grams of salt.

c. A letter from T.L. Clements to R.M. Brown (1985) indicates that some of the beryllium was probably disposed of on Pad A between 1972 and 1978. The specific quantity of Be or BeO in the waste on Pad A is unknown.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-235	Solid.	Oxide.	T .32460000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer.
U-238	Solid.	Oxide.	T 24.890000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer.
Pu-238	Occluded in salt cake.	Oxide.	T .02010000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-239	Occluded in salt cake.	Oxide.	T .62850000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-240	Occluded in salt cake.	Oxide.	T .15410000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-241	Occluded in salt cake.	Oxide.	T 5.3910000000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
Pu-242	Occluded in salt cake.	Oxide.	T .00001245000000	CI	1972	1978	N	-50%	+50%	Assumed by data gatherer. See comment (a) below.
U-234	Solid.	Oxide.	T 4.6400000000000	CI	1972	1978	N	-50%	+50%	See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

a. The concentrations of plutonium were predominately <10 nCi/g. There were a few exceptions as described in part A, item 10.

b. The U-234 data is assumed by the data gatherer, based on Rocky Flats material U-12 composition (depleted uranium).

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
RWMIS and Report, "RI/FS for Pad A, Operable Unit 7-12, WAG 7", RWMC. INEL, EGG-WM-9967, Rev. 1, Vol. 1, V.E. Halford, et al., July 1993. Passmore letter to Schletter, "Pad-A (TDA) Shipments Exceeding 10 nCi/gm", June 16, 1980. Clements letter to R.M. Brown, "Beryllium on Pad A", TLC-46-85, June 3, 1985.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Measurements of the concentrations of plutonium and uranium that were made in that time period were probably not highly reliable. Beryllium was not an accountable material. Therefore, there are no known records concerning the quantites of disposed beryllium.

8. Key assumptions used to deal with the unknowns:
Assumed that the concentration values from one salt sample are adequate. Assumed that chromium is present as sodium or potassium dichromate.

Power Excursion Reactor

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 54

1. Preparer: Gerber, G.

2. Date prepared: 06/28/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 601
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Combustibles (paper, cloth, wood, etc.).

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1970

9. Waste stream volume:
Amount 278.0000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
Please note that in this time period, waste from SPERT I, II, III and IV was collected at PBF-601.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
3, 7, 10, 44, 23, 5, 2, 31.

2. Details on physical form (particularly confinement related)
Most items were probably bagged and then put in cardboard boxes, "other" types were probably plastic covered.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Cardboard box*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BXW and "Other". PBF-601 contained the Fuel Storage Vault. It was also disassembly and assembly area for tests at SPERT I, II, III and IV. Waste consists of mostly combustibles and compactibles.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid, brick, shot and sheet.	Unknown.	T 200.00000000000	LB	1960	1970	N			
7440-43-9 Cadmium	Solid and sheet.	Unknown.	T 10.000000000000	LB	1960	1970	N			
67-64-1 Acetone	Liquid absorbed in rags.	Unknown.	T 39.000000000000	LB	1960	1970	N			
78-93-3 2-Butanone	Liquid absorbed in rags.	Unknown.	T 39.000000000000	LB	1960	1970	N			
79-01-6 Trichloroethylene	Liquid absorbed in rags.	Unknown.	T 390.00000000000	LB	1960	1970	N			
7440-22-4 Silver	Solid solder.	Alloy.	T 1.0000000000000	LB	1960	1970	N			
71-55-6 1,1,1-Trichloroethane	Liquid absorbed in rags.	Unknown.	T 78.000000000000	LB	1960	1970	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Hazardous chemicals are estimates from interviews with persons mentioned in part E.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Solid.	Oxides.	T 2.3800000000000	CI	1960	1970	N	-50%	+50%	
U-235	Pellet, powder, solid and rods.	Unknown.	T .00200000000000	CI	1960	1970	N	-50%	+50%	
U-238	Pellet, powder, solid and rods.	Unknown.	T .00433000000000	CI	1960	1970	N	-50%	+50%	
Cs-137	Solid.	Oxides.	T 17.240000000000	CI	1960	1970	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

UN-ID-B&G probably Cs-137 due to past analysis on SPERT II and SPERT III Leach Pond (see WM-F1-83-009 and WM-F1-83-010). These fuel rods were fabricated and analyzed at PBF-601. Some disposal also took place of U-235 and U-238. MFP is most probably Cs-137 (see above mentioned reports) and MAP is most probably Co-60 (see above mentioned reports). MFP, UN-ID-B&G were lumped together and renamed Cs-137. MAP and Co-60 were lumped together as Co-60. Also curie content is field estimate only based upon radiation readings.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [X] interview
[X] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Report WM-F1-82-018, SM-F1-83-009, WM-F1-83-010.
Interview: Ron Drake (6-8248), Ron Ooley (6-4253), R.L. Pierce (6-4566), Lavar Palmer (6-6644), Larry O. Miller (6-2710), Deloy Beasley (483-3611), Clyde Toole (6-6316), & Guy J. Wilson (233-3189).

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Radionuclides better identified, hazardous materials identified. Also, PER-601 collected waste from SPERT I, II, III, and IV during this time period.

7. Major unknowns in inventories of contaminants:
Acetone, MEK, may have already evaporated away. Radionuclides are per best recollection of personnel involved.

8. Key assumptions used to deal with the unknowns:
Interviews are the best recollections of personnel involved with these operations. Some of hazardous chemical volumes disposed. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 55

1. Preparer: Gerber, G.

2. Date prepared: 06/28/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 612
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Glove box, vacuum pump, air conditioner, capsule and radioactive source.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1973 Ending year 1973

9. Waste stream volume:
Amount 9.9600 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
This is the SPERT II Facility.

1. General physical form (see attached list)
Other scrap metals.
[X] other (specify)
5.

2. Details on physical form(particularly confinement related)
Glove box, vacuum pump, air conditioner, and one radioactive source (Ra-226). Possible Capsule Driver Core (CDC) capsule (test device). This waste is primarily metal components.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Other*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BXC.
5. "Other" is a capsule for testing of fuel, cabinet, milling machine pump, air conditioner, and glove box.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid, brick, shote and sheet.	Unknown.	A 200.00000000000	LB	1973	1973	N			
79-01-6 Trichloroethylene	Liquid absorbed in rags.	Unknown.	A 39.000000000000	LB	1973	1973	N			
78-93-3 2-Butanone	Liquid absorbed in rags.	Unknown.	A 7.8000000000000	LB	1973	1973	N			
7440-22-4 Silver	Solder.	Alloy.	A .10000000000000	LB	1973	1973	N			
71-55-6 1,1,1-Trichloroethane	Liquid absorbed in rags.	Unknown.	A 7.8000000000000	LB	1973	1973	N			
67-64-1 Acetone	Liquid absorbed in rags.	Unknown.	A 7.8000000000000	LB	1973	1973	N			
7440-43-9 Cadmium	Solid sheet.	Unknown.	A 20.000000000000	LB	1973	1973	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Solvents used to clean-up. Lead and cadmium were used for shielding. Quantities given are the best recollection of personnel involved with this facility.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	A .00000000500000	CI	1973	1973	N	-50%	+50%	
Cs-137	Solid.	Oxides.	A .70900000000000	CI	1973	1973	N	-50%	+50%	
Ra-226	Solid.	Source.	A .22900000000000	CI	1973	1973	N	-50%	+50%	
Pu-239	Solid.	Oxides.	A .00000000500000	CI	1973	1973	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Radionuclides curies are just estimates from radioactive readings. See document WM-F1-83-010, D+D of SPERT II Leach Pond for reference. Cs-137 is probably the UN-ID-B&G, and Pu-238, 239 is probably the UN-ID-alpha. Curies reported are estimated from radiation readings.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [X] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Ron Drake (6-8248), Lavar Palmer (6-6644), R.L. Pierce (6-4566), Larry O. Miller (6-2710), Deloy Beasely (483-3661), Ron Ooley (6-4253), Guy J. Wilson (233-3189) & Clyde Toole (6-6313).
Report document WM-F1-83-010.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Hazardous materials are not listed and the nuclides are not fully identified.

7. Major unknowns in inventories of contaminants:
Curies are just a rough estimate, but usually on the high side.

8. Key assumptions used to deal with the unknowns:
Some of hazardous chemical volumes disposed. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 56

1. Preparer: Gerber, G.

2. Date prepared: 06/30/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 613
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Core structure components, reactor vessel and loop components.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1971 Ending year 1980

9. Waste stream volume:
Amount 186.7000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
3. Generator is listed as PER and PBF.
3. and 4. In RWMIS, PER and PBF-613 are listed as separate facilities, they are in fact the same facility. Data is combined for both facilities. This is the SPERT IV Facility.
9. This is the total for years 1971, 1973, 1976, 1979, and 1980. Prior to D+D there is no documentation found for Reactor Fuel. Also included is PER with no building number. Review of original shipping records reveals that this waste came from the SPERT IV (PER-613).

1. General physical form (see attached list)
Other core, reactor vessel, loop component
[X] other (specify)
13, 10, 44, 21, 7.

2. Details on physical form (particularly confinement related)
Waste primarily is metal components (05).

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Other*.

6. Other characteristics of interest:
Silver leftovers and slag from Recovery Process constitutes hazardous waste generated in 1979 to 1982 time frame.

7. Comments (specify number of pertinent question):
1. Lead exists in small quantities, used and disposed of in radioactive waste less than 100 lbs. A UO2 and vermiculite mixture was disposed of in probably 1971. Also, one radioactive shipping cask was sent to the RWMC and it probably contains lead (unknown quantity). One shipment in 1973 and one in 1974 went to PAD A.
5. BXW, BLX and BXC. "Other" equals containers, mostly odd shaped or large metal core components.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
67-64-1 Acetone	Liquid absorbed in rags.	Unknown.	T 78.000000000000	LB	1971	1982	N			
79-01-6 Trichloroethylene	Liquid absorbed in rags.	Unknown.	T 78.000000000000	LB	1971	1982	N			
7439-92-1 Lead	Solid, brick, shot, and sheet.	Unknown.	T 1000.0000000000	LB	1971	1982	N			
7440-22-4 Silver	Solid (glassified).	Alloy.	T 2.0000000000000	LB	1979	1982	N			
78-93-3 2-Butanone	Liquid absorbed in rags.	Unknown.	T 23.400000000000	LB	1971	1982	N			
7440-43-9 Cadmium	Solid and sheet.	Unknown.	T 4.0000000000000	LB	1971	1982	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Acetone has probably volatized off. Waste was generated in 6 years only (1971, 1973, 1976, 1979, 1980, and 1982). Total column represents best estimate of total for all those years. Cadmium and lead were used for shielding. Liquids used in small quantities for cleanup.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Solid.	Oxides and particulate.	T 4.9340000000000	CI	1971	1982	N	-50%	+50%	
U-235	Absorbed liquid slurry.	Unknown.	T .00002996000000	CI	1971	1971	N	-50%	+50%	
U-238	Absorbed liquid slurry.	Unknown.	T .00004329000000	CI	1971	1971	N	-50%	+50%	
Cs-137	Solid.	Oxides and particulate.	T .29800000000000	CI	1971	1982	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Curies reported are from Field Radiation Measurements and then converted. Total column is total for 6 years (1971, 1973, 1976, 1979, 1980, & 1981). UN-ID-B&G and MFP for all years was converted to Cs-137, which is typical for PBF/SPERT. 90-95 % of MFP is Cs-137. Co-60 and MAP were combined totals. Most MAP is Co-60 in PBF/SPERT area.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [X] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Lavar Palmer (6-6644), R.L. Pierce (6-4566), Guy J. Wilson (233-3189), Larry O. Miller (6-2710), George Reimos (6-0349), Clyde Toole (6-6316), Deloy Beasley (483-3611), Ron Ooley (6-4253)
Report TREE-1373, page 23.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
PER (no building number) needs to be added to PER/PBF-613 totals. PER (no building number) is really PER-613. PER-613 and PBF-613 are the same building but listed separately in RWMIS, this may need to be changed.

7. Major unknowns in inventories of contaminants:
Curies reported are typically a field estimate and not an actual gamma spectrometer.

8. Key assumptions used to deal with the unknowns:
MFP was usually 90-95% Cs-137. UN-ID-B&G was usually Cs-137. MAP was usually Co-60. Looked at sampling report for SPERT IV (Report TREE-1373, page 23). Some of hazardous chemical volumes disposed of. No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 57

1. Preparer: Gerber, G.

2. Date prepared: 07/02/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 617
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Irradiated and unirradiated fuel.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1972 Ending year 1977

9. Waste stream volume:
Amount 0.7070 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
Unused, and also irradiated fuel discarded to RWMC after shutdown of SPERT I, II, III, and IV reactors. PER-617 and PBF-617 are the same building. Also includes fuel that was sent to Pad A. Irradiated fuel has a low megawatt irradiation time.

PART B - WASTE STREAM CHARACTERISTICS PER-617-1H HDT - 57

1. General physical form (see attached list)
Irradiated fuel from experiments.
[X] other (specify)
3, pellet, powder and rods.

2. Details on physical form(particularly confinement related)
Pellets, powder and rods.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Fuel wrapped in plastic. See 7 below.

5. Waste container type (see attached list)
Cardboard box*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Fuel probably wrapped plastic and put in BXC or metal shipping can (1 cu ft.).
5. "Other" is a 1 cubic ft. metal shipping can. This was just a storage building, no cleaning or solvent use was done.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Talked with Guy J. Wilson (he was in charge of this vault) and he said that no hazardous materials were used here.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-235	Solid, pellet, powder and rods.	Unknown.	T .00020560000000	CI	1972	1977	N	-50%	+50%	
U-238	Solid, pellet, powder and rods.	Unknown.	T .00469600000000	CI	1972	1977	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Believe this to be very accurate as fuel accountability was in grams and was dealt with in very known quantities. Irradiated fuel is low-yield burn-up.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [X] interview
[X] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Guy J. Wilson.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
PER-617 and PBF-617 are the same building, also, PER-617 waste to PAD is included in totals.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 139

1. Preparer: Gerber, G.

2. Date prepared: 07/06/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 620
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Paper, cloth, wood, resin, insulation, batteries, concrete, asphalt and radioactive sources.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1970 Ending year 1983

9. Waste stream volume:
Amount 511.8900 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
PER-620 and PBF-620 are the same building and totals are combined on this data sheet.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
1, 5, 7, 9, 10, 12, 13, 22, 31, 47, 43.

2. Details on physical form(particularly confinement related)
Plastic bags were used to make up a BLX. Plastic bags were used to contain waste thrown away in BXW.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
PL and O. See 7 below.

5. Waste container type (see attached list)
Wooden box*.

6. Other characteristics of interest:
Hazardous substances were used in very small quantities.

7. Comments (specify number of pertinent question):
2. Asbestos in some BXW boxes. Zirconium was less than 1 oz. (in chip form) from a modification to a flow tube. Resin is from clean-up operations of lead and reactor systems. Vermiculite and other sorbents are in BXW (required). Also, one box (2x4x8) contains sludge absorbed in kitty litter (approximately 1980). Small non-registered sources (unknown isotopes and quantities) were also disposed of. Carbon zinc and alkaline batteries were disposed of (approximately 200 lbs.). BLM may be disposed of in BXW and reported. Concrete and asphalt in small quantities (5,200 lbs. total) from modifications and clean-up. Soil is from clean-up in small quantities (550 lbs.).
5. BLM, BXC and "Other". Some 24 BXW (128 ft3) are lead lined to reduce radiation levels. Most BXW boxes were plastic liner lined.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid, brick, shot and sheets.	Metal.	T 2000.0000000000	LB	1970	1983	N			
67-64-1 Acetone	Liquid absorbed in rags.		T 39.000000000000	LB	1981	1983	N			
7440-22-4 Silver	Solid zeolite and solder.	Alloy.	T 10.000000000000	LB	1970	1983	N			
7440-47-3 Chromium	Solid and particles.		T 1.0000000000000	LB	1970	1983	N			
71-55-6 1,1,1-Trichloroethane	Liquid absorbed in rags.		T 15.600000000000	LB	1970	1983	N			
1332-21-4 Asbestos	Solid.	Friable.	T 20.000000000000	LB	1970	1983	N			
302012 Hydrazine	Liquid absorbed in rags.		T 3.9000000000000	LB	1970	1983	N			
108-88-3 Toluene	Liquid absorbed in rags.		T 23.400000000000	LB	1978	1983	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Silver is in the form of zeolite and silver solder. Chromium is left over residue absorbed in rags. Trichloroethane is "Tag Magic" mixture. Asbestos is friable and typically in small quantities.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Cs-137	Solid.	Oxides.	T 6.5690000000000	CI	1970	1983	N	-50%	+50%	
Co-60	Solid.	Oxides.	T .99790000000000	CI	1970	1983	N	-50%	+50%	
U-235	Solid, pellets and powder.	Oxides and solid.	T .00063600000000	CI	1970	1983	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
UN-ID-B&G converted to Cs-137, MFP converted to Cs-137, MAP converted to Co-60. Conversions were based upon past samples but not on these wastes. The number of curies is based upon radiation reading and a conversion formula.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[X] sample analysis data
[ ] operating records [X] interview
[X] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
G. Gerber 6-8230, D. Munson 6-8230, Gus Wilson 233-3189, Vic Kelsey 6-6360, Lavar Palmer 6-6644.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Doesn't include hazardous materials, MFP and MAP converted to known isotopes.

7. Major unknowns in inventories of contaminants:
Quantities given are to the best recollection of personnel involved.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 58

1. Preparer: Gerber, G.

2. Date prepared: 06/24/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: 623
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Irradiated fuel powder and pellets.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1971 Ending year 1971

9. Waste stream volume:
Amount 0.2830 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
One time fuel shipment from PER-623 (SPERT III area). May wish to change the building number as this building was a small support building to PER-609.

1. General physical form (see attached list)
Irradiated fuel from experiments.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Irradiated fuel powder and pellets in 1 cu ft. shipping cans.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Other.

6. Other characteristics of interest:
None.

7. Comments (specify number of pertinent question):
One time fuel shipment of excess fuel (irradiated) from SPERT III shipment was probably in small 1 cu ft. metal shipping cans.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.										

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-235	Solid, powder and pellet.	Unknown.	T .00082390000000	CI	1971	1971	N	-50%	+50%	
U-238	Solid, powder and pellet.	Unknown.	T .00299700000000	CI	1971	1971	N	-50%	+50%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

The number of curies given is probably very accurate due to the accountability of Special Nuclear Materials (usually weighed in grams). Fuel had low irradiation time thus low radiation levels.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[X] operating records [X] interview
[X] expert judgment [ ] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Vic Kelsey (6-6360).

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate. The waste stream curie content and specific radionuclides were determined by means of the generator's analytical methods prior to shipping. Upper and lower bounds are estimated based on waste expert's judgment. None.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION   HDT - 140

1. Preparer: Gerber, G.

2. Date prepared: 06/30/93

3. Generator: PER
(area or contractor - use code from attached list)

4. Particular facility: ORM
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Paper, cloth, wood, barrels of Santo-R wax and empty barrels.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1966

9. Waste stream volume:
Amount 914.6000 Units Cubic meters.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Waste is from OMRE reactor. Waste from this facility is reported as PER AII on RWMIS.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[X] other (specify)
10.

2. Details on physical form(particularly confinement related)
Barrels disposed of were sometimes empty and sometimes full of Santo-R wax (especially 1963). Waste is approximately 75% BXC and 65% BLM.

3. Chemical form:

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Cardboard box*.

6. Other characteristics of interest:
Xylene, methachlor, trichloroethylene, and acetone were used to clean up. Asbestos is probably with piping components.

7. Comments (specify number of pertinent question):
2. Asbestos is in some boxes of waste. Santo-R wax is not hazardous per Ken Gilbert (6-8039).
5. BXW, BLM and "Other".

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
1330-20-7 Xylene	Liquid absorbed in rags.		T 780.00000000000	LB	1960	1966	N			
79-01-6 Trichloroethylene	Liquid absorbed in rags.		T 390.00000000000	LB	1960	1966	N			
67-64-1 Acetone	Liquid absorbed in rags.		T 39.000000000000	LB	1960	1966	N			
71-55-6 1,1,1-Trichloroethane	Liquid absorbed in rags.		T 390.00000000000	LB	1960	1966	N			
1332-21-4 Asbestos	Solid.	Friable.	T 5.0000000000000	LB	1960	1966	N			
7439-92-1 Lead	Solid cask, brick and shot.		T 1200.0000000000	LB	1960	1966	N			
108-88-3 Toluene	Liquid absorbed in rags.		T 390.00000000000	LB	1960	1966	N			
7440-36-0 Antimony	Solid.	Encapsulated in source.	T 1.0000000000000	LB	1963	1963	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Xylene and methachlor usage per conversation with R. Tomblinson (6-5552). Xylene has/was probably volatized off then and by now. Santo-Wax R consisted of terphenyl and diphenyl and is not hazardous. Small quantities of xylene methachlor and trichloroethylene were used for clean up. One lead cask was sent (included in total). Also one 55-gallon barrel of xylene was disposed of at RWMC. Antimony is in neutron source on next page.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Be-10	Solid.	Solid.	T 37.500000000000	CI	1963	1963	N	-10%	+10%	
Co-60	Solid.	Oxides and flakes.	T 25.070000000000	CI	1960	1966	N			
Cs-137	Solid.	Oxides.	T 143.80000000000	CI	1960	1966	N			
Sr-90	Solid.	Oxides.	T 45.400000000000	CI	1960	1966	N			
Sb-124	Solid.	Solid.	T 37.500000000000	CI	1963	1963	N	-10%	+10%	
U-235	Solid.	Oxides.	T .00000736100000	CI	1963	1963	N	-20%	+20%	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

MFP was converted to 76% Cs-137 and 24% Sr-90. MAP was converted to Co-60. Based upon report PR-W-79-029. The number of curies is based upon radiation reading and a conversion formula (except below). Per conversation with J. Klossner and others, during facility shutdown in 1963, a 75 curie Sb-124/Be-10 neutron source was disposed of. The U-235 was from 2 fission chambers that were disposed of.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [X] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
William L. Scott 6-8189, Grant McCellan 6-7257, Norm Swanson (602)574-4441, John Klossner 6-2524, Rick Tomblison 6-5522.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Sb-124/Be-10 was not identified as a neutron source.

7. Major unknowns in inventories of contaminants:
Quantities given are this best recollection of personnel involved. Many barrels of contaminated (but not hazardous) Santo-R wax was disposed of at RWMC. Some were empty. Most were approximately 75% full.

8. Key assumptions used to deal with the unknowns:
No G-M correction is needed to the best estimate for the U-235, Be-10, and Sb-124 entries. The U-235 entry is assumed to have been identified by analytical methods or weight. The Be-10 and Sb-124 were in a neutron source, whose activity is assumed to have been known by analytical means. The G-M correction is needed to the best estimate for the other radionuclides, because they were estimated by that method. Upper and lower bounds estimated based on waste expert's judgment.

Rocky Flats Plant

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 213

1. Preparer: Kudera, Don

2. Date prepared: 06/16/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
1H

6. Waste stream:
Benelex and plexiglass.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 157.1000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Buildings 771 and 776.
6. Prior to 1971, this content code consisted mainly of plexiglass. This buried waste stream is similar to stored waste content code 464.
9. The data used to determine 1954-1970 waste is for 1971 to 1973 only (16 drums per year).

1. General physical form (see attached list)
Plastics.
[X] other (specify)
21.

2. Details on physical form(particularly confinement related)
Waste consists of Benelex (wood particle hardboard), plexiglass glove box windows, lead sheeting (1/8 to 1/4 inch thick,), leaded-glass may be present, fire retardant paint on the Benelex, and metal.

3. Chemical form:
Pu oxides.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Content code 302 replaced content code 464 during 1973.

7. Comments (specify number of pertinent question):
4. Some waste may have been individually wrapped before being placed inside the drum and drum bags.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Leaded glass in small amounts is found in this waste stream. Some drums may contain 1 to 2 quarts of absorbent (Oil-Dri). No hazardous material identified except as above.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .00342000000000	CI	1954	1954				
Pu-238	Solid.	Oxides.	T .01710000000000	CI	1955	1955				
Pu-238	Solid.	Oxides.	T .03440000000000	CI	1956	1956				
Pu-238	Solid.	Oxides.	T .04970000000000	CI	1957	1957				
Pu-238	Solid.	Oxides.	T .11500000000000	CI	1958	1958				
Pu-238	Solid.	Oxides.	T .12700000000000	CI	1959	1959				
Pu-238	Solid.	Oxides.	T .15000000000000	CI	1960	1960				
Pu-238	Solid.	Oxides.	T .13700000000000	CI	1961	1961				
Pu-238	Solid.	Oxides.	T .17900000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .21700000000000	CI	1963	1963				
Pu-238	Solid.	Oxides.	T .18600000000000	CI	1964	1964				
Pu-238	Solid.	Oxides.	T .26800000000000	CI	1965	1965				
Pu-238	Solid.	Oxides.	T .32700000000000	CI	1966	1966				
Pu-238	Solid.	Oxides.	T .12600000000000	CI	1967	1967				
Pu-238	Solid.	Oxides.	T .05440000000000	CI	1968	1968				
Pu-238	Solid.	Oxides.	T .15800000000000	CI	1969	1969				
Pu-238	Solid.	Oxides.	T .20100000000000	CI	1970	1970				
Pu-239	Solid.	Oxides.	T .11600000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T .583000000000000	CI	1955	1955				
Pu-239	Solid.	Oxides.	T 1.1700000000000	CI	1956	1956				
Pu-239	Solid.	Oxides.	T 1.7000000000000	CI	1957	1957				
Pu-239	Solid.	Oxides.	T 3.9400000000000	CI	1958	1958				
Pu-239	Solid.	Oxides.	T 4.3300000000000	CI	1959	1959				
Pu-239	Solid.	Oxides.	T 5.1200000000000	CI	1960	1960				
Pu-239	Solid.	Oxides.	T 4.6800000000000	CI	1961	1961				
Pu-239	Solid.	Oxides.	T 6.1000000000000	CI	1962	1962				
Pu-239	Solid.	Oxides.	T 7.4200000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 6.3600000000000	CI	1964	1964				
Pu-239	Solid.	Oxides.	T 9.1400000000000	CI	1965	1965				
Pu-239	Solid.	Oxides.	T 11.200000000000	CI	1966	1966				
Pu-239	Solid.	Oxides.	T 4.2900000000000	CI	1967	1967				
Pu-239	Solid.	Oxides.	T 1.8600000000000	CI	1968	1968				
Pu-239	Solid.	Oxides.	T 5.3900000000000	CI	1969	1969				
Pu-239	Solid.	Oxides.	T 6.8600000000000	CI	1970	1970				
Pu-240	Solid.	Oxides.	T .02610000000000	CI	1954	1954				
Pu-240	Solid.	Oxides.	T .13000000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T .263000000000000	CI	1956	1956				
Pu-240	Solid.	Oxides.	T .380000000000000	CI	1957	1957				
Pu-240	Solid.	Oxides.	T .883000000000000	CI	1958	1958				
Pu-240	Solid.	Oxides.	T .969000000000000	CI	1959	1959				
Pu-240	Solid.	Oxides.	T 1.1500000000000	CI	1960	1960				
Pu-240	Solid.	Oxides.	T 1.0500000000000	CI	1961	1961				
Pu-240	Solid.	Oxides.	T 1.3600000000000	CI	1962	1962				
Pu-240	Solid.	Oxides.	T 1.6600000000000	CI	1963	1963				
Pu-240	Solid.	Oxides.	T 1.4200000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 2.0500000000000	CI	1965	1965				
Pu-240	Solid.	Oxides.	T 2.5000000000000	CI	1966	1966				
Pu-240	Solid.	Oxides.	T .96100000000000	CI	1967	1967				
Pu-240	Solid.	Oxides.	T .41600000000000	CI	1968	1968				
Pu-240	Solid.	Oxides.	T 1.2100000000000	CI	1969	1969				
Pu-240	Solid.	Oxides.	T 1.5400000000000	CI	1970	1970				
Pu-241	Solid.	Oxides.	T .69800000000000	CI	1954	1954				
Pu-241	Solid.	Oxides.	T 3.4900000000000	CI	1955	1955				
Pu-241	Solid.	Oxides.	T 7.0200000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 10.200000000000	CI	1957	1957				
Pu-241	Solid.	Oxides.	T 23.600000000000	CI	1958	1958				
Pu-241	Solid.	Oxides.	T 25.900000000000	CI	1959	1959				
Pu-241	Solid.	Oxides.	T 30.700000000000	CI	1960	1960				
Pu-241	Solid.	Oxides.	T 28.000000000000	CI	1961	1961				
Pu-241	Solid.	Oxides.	T 36.500000000000	CI	1962	1962				
Pu-241	Solid.	Oxides.	T 44.400000000000	CI	1963	1963				
Pu-241	Solid.	Oxides.	T 38.100000000000	CI	1964	1964				
Pu-241	Solid.	Oxides.	T 54.800000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 66.800000000000	CI	1966	1966				
Pu-241	Solid.	Oxides.	T 25.700000000000	CI	1967	1967				
Pu-241	Solid.	Oxides.	T 11.100000000000	CI	1968	1968				
Pu-241	Solid.	Oxides.	T 32.300000000000	CI	1969	1969				
Pu-241	Solid.	Oxides.	T 41.100000000000	CI	1970	1970				
Pu-242	Solid.	Oxides.	T .00000157000000	CI	1954	1954				
Pu-242	Solid.	Oxides.	T .00000784000000	CI	1955	1955				
Pu-242	Solid.	Oxides.	T .00001580000000	CI	1956	1956				
Pu-242	Solid.	Oxides.	T .00002280000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00005300000000	CI	1958	1958				
Pu-242	Solid.	Oxides.	T .00005820000000	CI	1959	1959				
Pu-242	Solid.	Oxides.	T .00006890000000	CI	1960	1960				
Pu-242	Solid.	Oxides.	T .00006300000000	CI	1961	1961				
Pu-242	Solid.	Oxides.	T .00008200000000	CI	1962	1962				
Pu-242	Solid.	Oxides.	T .00009970000000	CI	1963	1963				
Pu-242	Solid.	Oxides.	T .00008550000000	CI	1964	1964				
Pu-242	Solid.	Oxides.	T .00012300000000	CI	1965	1965				
Pu-242	Solid.	Oxides.	T .00015000000000	CI	1966	1966				

* If sample dáta are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00005770000000	CI	1967	1967				
Pu-242	Solid.	Oxides.	T .00002500000000	CI	1968	1968				
Pu-242	Solid.	Oxides.	T .00007250000000	CI	1969	1969				
Pu-242	Solid.	Oxides.	T .00009230000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements Jr.
EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 214

1. Preparer: Kudera, Don

2. Date prepared: 01/10/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
2H

6. Waste stream:
Cemented sludges.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building 771.
6. This buried waste stream is similar to stored waste content code #4.
9. 124 55-gallon drums per year.

1. General physical form (see attached list)
Other liquid setups.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Liquids mixed with cement to form a solid monolith.

3. Chemical form:
Liquid solution made basic and containing Pu, Am, and complexing agents such as organic acids and EDTA. This solution is made into a cemented monolith with Portland cement and pipe insulation cement.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None-VER. Versenes	Liquid.		Unknown.	GM	1954	1970			0.00000000	
None-ORG. Organic Acids	Liquid.		Unknown.	GM	1954	1970			0.00000000	
None-ALC. Alcohols	Liquid.		Unknown.	GM	1954	1970			0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238			T .01470000000000	CI	1954	1954				
Pu-238			T .07350000000000	CI	1955	1955				
Pu-238			T .14800000000000	CI	1956	1956				
Pu-238			T .21400000000000	CI	1957	1957				
Pu-238			T .49700000000000	CI	1958	1958				
Pu-238			T .54600000000000	CI	1959	1959				
Pu-238			T .64600000000000	CI	1960	1960				
Pu-238			T .59100000000000	CI	1961	1961				
Pu-238			T .76900000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	* Basis for Uncertainty
Pu-238			T .93600000000000	CI	1963	1963				
Pu-238			T .80200000000000	CI	1964	1964				
Pu-238			T 1.1500000000000	CI	1965	1965				
Pu-238			T 1.4100000000000	CI	1966	1966				
Pu-238			T .54100000000000	CI	1967	1967				
Pu-238			T .23400000000000	CI	1968	1968				
Pu-238			T .68000000000000	CI	1969	1969				
Pu-238			T .86600000000000	CI	1970	1970				
Pu-239			T .50200000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239			T 2.5100000000000	CI	1955	1955				
Pu-239			T 5.0500000000000	CI	1956	1956				
Pu-239			T 7.3100000000000	CI	1957	1957				
Pu-239			T 17.000000000000	CI	1958	1958				
Pu-239			T 18.600000000000	CI	1959	1959				
Pu-239			T 22.000000000000	CI	1960	1960				
Pu-239			T 20.200000000000	CI	1961	1961				
Pu-239			T 26.200000000000	CI	1962	1962				
Pu-239			T 31.900000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239			T 27.400000000000	CI	1964	1964				
Pu-239			T 39.400000000000	CI	1965	1965				
Pu-239			T 48.100000000000	CI	1966	1966				
Pu-239			T 18.500000000000	CI	1967	1967				
Pu-239			T 8.0000000000000	CI	1968	1968				
Pu-239			T 23.200000000000	CI	1969	1969				
Pu-239			T 29.600000000000	CI	1970	1970				
Pu-240			T .11200000000000	CI	1954	1954				
Pu-240			T .56200000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240			T 1.1300000000000	CI	1956	1956				
Pu-240			T 1.6400000000000	CI	1957	1957				
Pu-240			T 3.8000000000000	CI	1958	1958				
Pu-240			T 4.1700000000000	CI	1959	1959				
Pu-240			T 4.9400000000000	CI	1960	1960				
Pu-240			T 4.5200000000000	CI	1961	1961				
Pu-240			T 5.8800000000000	CI	1962	1962				
Pu-240			T 7.1500000000000	CI	1963	1963				
Pu-240			T 6.1300000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240			T 8.8200000000000	CI	1965	1965				
Pu-240			T 10.800000000000	CI	1966	1966				
Pu-240			T 4.1400000000000	CI	1967	1967				
Pu-240			T 1.7900000000000	CI	1968	1968				
Pu-240			T 5.2000000000000	CI	1969	1969				
Pu-240			T 6.6200000000000	CI	1970	1970				
Pu-241			T 3.0000000000000	CI	1954	1954				
Pu-241			T 15.000000000000	CI	1955	1955				
Pu-241			T 30.200000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241			T 43.800000000000	CI	1957	1957				
Pu-241			T 102.00000000000	CI	1958	1958				
Pu-241			T 112.00000000000	CI	1959	1959				
Pu-241			T 132.00000000000	CI	1960	1960				
Pu-241			T 121.00000000000	CI	1961	1961				
Pu-241			T 157.00000000000	CI	1962	1962				
Pu-241			T 191.00000000000	CI	1963	1963				
Pu-241			T 164.00000000000	CI	1964	1964				
Pu-241			T 236.00000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241			T 288.00000000000	CI	1966	1966				
Pu-241			T 111.00000000000	CI	1967	1967				
Pu-241			T 47.900000000000	CI	1968	1968				
Pu-241			T 139.00000000000	CI	1969	1969				
Pu-241			T 177.00000000000	CI	1970	1970				
Pu-242			T .00000675000000	CI	1954	1954				
Pu-242			T .00003370000000	CI	1955	1955				
Pu-242			T .00006790000000	CI	1956	1956				
Pu-242			T .00009830000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242			T .00022800000000	CI	1958	1958				
Pu-242			T .00025000000000	CI	1959	1959				
Pu-242			T .00029600000000	CI	1960	1960				
Pu-242			T .00027100000000	CI	1961	1961				
Pu-242			T .00035300000000	CI	1962	1962				
Pu-242			T .00042900000000	CI	1963	1963				
Pu-242			T .00036800000000	CI	1964	1964				
Pu-242			T .00052900000000	CI	1965	1965				
Pu-242			T .00064600000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242			T .00024800000000	CI	1967	1967				
Pu-242			T .00010800000000	CI	1968	1968				
Pu-242			T .00031200000000	CI	1969	1969				
Pu-242			T .00039700000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021. EDF-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 215

1. Preparer: Kudera, Don

2. Date prepared: 01/10/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
3H

6. Waste stream:
Uncemented sludges.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building 774.
6. This buried waste stream is similar to stored waste content codes 1, 2, and 290.
9. 769 55-gallon drums/year.

1. General physical form (see attached list)
Sludge.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Sludge - cement added, oil-dri added.

3. Chemical form:
Hydrated oxides of Pu and AM (PuO2+2H2O) in sludge. After drying, it would be PuO2.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Two plastic bags were used in packaging.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
1309-48-4 Magnesium Oxide	Solid.	Oxide.	Unknown.	GM	1954	1970	N		0.00000000	
1330-20-7 Xylene	Liquid.		T 964.00000000000	GM	1954	1954			964.000000	
1330-20-7 Xylene	Liquid.		T 4820.0000000000	GM	1955	1955			4820.00000	
1330-20-7 Xylene	Liquid.		T 9700.0000000000	GM	1956	1956			9700.00000	
1330-20-7 Xylene	Liquid.		T 14000.000000000	GM	1957	1957			14000.0000	
1330-20-7 Xylene	Liquid.		T 32600.000000000	GM	1958	1958			32600.0000	
1330-20-7 Xylene	Liquid.		T 35800.000000000	GM	1959	1959			35800.0000	
1330-20-7 Xylene	Liquid.		T 42300.000000000	GM	1960	1960			42300.0000	
1330-20-7 Xylene	Liquid.		T 38700.000000000	GM	1961	1961			38700.0000	

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Additional information or explanations (indicate pertinent contaminant)
Also contains unknown quantities of calcium oxide and flocculating agents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

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1330-20-7 Xylene	Liquid.		T 50400.000000000	GM	1962	1962			50400.0000	
1330-20-7 Xylene	Liquid.		T 61300.000000000	GM	1963	1963			61300.0000	
1330-20-7 Xylene	Liquid.		T 52600.000000000	GM	1964	1964			52600.0000	
1330-20-7 Xylene	Liquid.		T 75600.000000000	GM	1965	1965			75600.0000	
1330-20-7 Xylene	Liquid.		T 92300.000000000	GM	1966	1966			92300.0000	
1330-20-7 Xylene	Liquid.		T 35500.000000000	GM	1967	1967			35500.0000	
1330-20-7 Xylene	Liquid.		T 15400.000000000	GM	1968	1968			15400.0000	
1330-20-7 Xylene	Liquid.		T 44600.000000000	GM	1969	1969			44600.0000	
1330-20-7 Xylene	Liquid.		T 56700.000000000	GM	1970	1970			56700.0000	

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Additional information or explanations (indicate pertinent contaminant)
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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Liquid.		T 434.00000000000	GM	1954	1954			434.000000	
56-23-5 Carbon Tetrachloride	Liquid.		T 2170.0000000000	GM	1955	1955			2170.00000	
56-23-5 Carbon Tetrachloride	Liquid.		T 4370.0000000000	GM	1956	1956			4370.00000	
56-23-5 Carbon Tetrachloride	Liquid.		T 6320.0000000000	GM	1957	1957			6320.00000	
56-23-5 Carbon Tetrachloride	Liquid.		T 14700.000000000	GM	1958	1958			14700.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 16100.000000000	GM	1959	1959			16100.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 19100.000000000	GM	1960	1960			19100.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 17400.000000000	GM	1961	1961			17400.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 22700.000000000	GM	1962	1962			22700.0000	

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56-23-5 Carbon Tetrachloride	Liquid.		T 27600.000000000	GM	1963	1963			27600.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 23700.000000000	GM	1964	1964			23700.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 34000.000000000	GM	1965	1965			34000.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 41600.000000000	GM	1966	1966			41600.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 16000.000000000	GM	1967	1967			16000.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 6920.0000000000	GM	1968	1968			6920.00000	
56-23-5 Carbon Tetrachloride	Liquid.		T 20100.000000000	GM	1969	1969			20100.0000	
56-23-5 Carbon Tetrachloride	Liquid.		T 25600.000000000	GM	1970	1970			25600.0000	
67-56-1 Methyl Alcohol	Liquid.		T 434.00000000000	GM	1954	1954			434.000000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
67-56-1 Methyl Alcohol	Liquid.		T 2170.0000000000	GM	1955	1955			2170.00000	
67-56-1 Methyl Alcohol	Liquid.		T 4370.0000000000	GM	1956	1956			4370.00000	
67-56-1 Methyl Alcohol	Liquid.		T 6320.0000000000	GM	1957	1957			6320.00000	
67-56-1 Methyl Alcohol	Liquid.		T 14700.000000000	GM	1958	1958			14700.0000	
67-56-1 Methyl Alcohol	Liquid.		T 16100.000000000	GM	1959	1959			16100.0000	
67-56-1 Methyl Alcohol	Liquid.		T 19100.000000000	GM	1960	1960			19100.0000	
67-56-1 Methyl Alcohol	Liquid.		T 17400.000000000	GM	1961	1961			17400.0000	
67-56-1 Methyl Alcohol	Liquid.		T 22700.000000000	GM	1962	1962			22700.0000	
67-56-1 Methyl Alcohol	Liquid.		T 27600.000000000	GM	1963	1963			27600.0000	

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67-56-1 Methyl Alcohol	Liquid.		T 23700.000000000	GM	1964	1964			23700.0000	
67-56-1 Methyl Alcohol	Liquid.		T 34000.000000000	GM	1965	1965			34000.0000	
67-56-1 Methyl Alcohol	Liquid.		T 41600.000000000	GM	1966	1966			41600.0000	
67-56-1 Methyl Alcohol	Liquid.		T 16000.000000000	GM	1967	1967			16000.0000	
67-56-1 Methyl Alcohol	Liquid.		T 6920.0000000000	GM	1968	1968			6920.00000	
67-56-1 Methyl Alcohol	Liquid.		T 20100.000000000	GM	1969	1969			20100.0000	
67-56-1 Methyl Alcohol	Liquid.		T 25600.000000000	GM	1970	1970			25600.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 1430.0000000000	GM	1954	1954			1430.00000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 7150.0000000000	GM	1955	1955			7150.00000	

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71-55-6 1,1,1-Trichloroethane	Liquid.		T 14400.000000000	GM	1956	1956			14400.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 20800.000000000	GM	1957	1957			20800.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 48400.000000000	GM	1958	1958			48400.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 53100.000000000	GM	1959	1959			53100.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 62800.000000000	GM	1960	1960			62800.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 57500.000000000	GM	1961	1961			57500.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 74800.000000000	GM	1962	1962			74800.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 91000.000000000	GM	1963	1963			91000.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 78000.000000000	GM	1964	1964			78000.0000	

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71-55-6 1,1,1-Trichloroethane	Liquid.		T 112000.00000000	GM	1965	1965			112000.000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 137000.00000000	GM	1966	1966			137000.000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 52600.000000000	GM	1967	1967			52600.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 22800.000000000	GM	1968	1968			22800.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 66200.000000000	GM	1969	1969			66200.0000	
71-55-6 1,1,1-Trichloroethane	Liquid.		T 84200.000000000	GM	1970	1970			84200.0000	
71363 Butyl Alcohol	Liquid.		T 193.00000000000	GM	1954	1954			193.000000	
71363 Butyl Alcohol	Liquid.		T 964.00000000000	GM	1955	1955			964.000000	
71363 Butyl Alcohol	Liquid.		T 1940.0000000000	GM	1956	1956			1940.00000	

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71363 Butyl Alcohol	Liquid.		T 2810.0000000000	GM	1957	1957			2810.00000	
71363 Butyl Alcohol	Liquid.		T 6520.0000000000	GM	1958	1958			6520.00000	
71363 Butyl Alcohol	Liquid.		T 7160.0000000000	GM	1959	1959			7160.00000	
71363 Butyl Alcohol	Liquid.		T 8470.0000000000	GM	1960	1960			8470.00000	
71363 Butyl Alcohol	Liquid.		T 7750.0000000000	GM	1961	1961			7750.00000	
71363 Butyl Alcohol	Liquid.		T 10100.000000000	GM	1962	1962			10100.0000	
71363 Butyl Alcohol	Liquid.		T 12300.000000000	GM	1963	1963			12300.0000	
71363 Butyl Alcohol	Liquid.		T 10500.000000000	GM	1964	1964			10500.0000	
71363 Butyl Alcohol	Liquid.		T 15100.000000000	GM	1965	1965			15100.0000	

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71363 Butyl Alcohol	Liquid.		T 18400.000000000	GM	1966	1966			18400.0000	
71363 Butyl Alcohol	Liquid.		T 7100.0000000000	GM	1967	1967			7100.00000	
71363 Butyl Alcohol	Liquid.		T 3070.0000000000	GM	1968	1968			3070.00000	
71363 Butyl Alcohol	Liquid.		T 8920.0000000000	GM	1969	1969			8920.00000	
71363 Butyl Alcohol	Liquid.		T 11300.000000000	GM	1970	1970			11300.0000	
7439-92-1 Lead	Solid.	Oxide.	T 193.00000000000	GM	1954	1954			386.000000	
7439-92-1 Lead	Solid.	Oxide.	T 964.00000000000	GM	1955	1955			1928.00000	
7439-92-1 Lead	Solid.	Oxide.	T 1940.0000000000	GM	1956	1956			3880.00000	
7439-92-1 Lead	Solid.	Oxide.	T 2810.0000000000	GM	1957	1957			5620.00000	

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7439-92-1 Lead	Solid.	Oxide.	T 6520.0000000000	GM	1958	1958			13040.0000	
7439-92-1 Lead	Solid.	Oxide.	T 7160.0000000000	GM	1959	1959			14320.0000	
7439-92-1 Lead	Solid.	Oxide.	T 8470.0000000000	GM	1960	1960			16940.0000	
7439-92-1 Lead	Solid.	Oxide.	T 7750.0000000000	GM	1961	1961			15500.0000	
7439-92-1 Lead	Solid.	Oxide.	T 10100.000000000	GM	1962	1962			20200.0000	
7439-92-1 Lead	Solid.	Oxide.	T 12300.000000000	GM	1963	1963			24600.0000	
7439-92-1 Lead	Solid.	Oxide.	T 10500.000000000	GM	1964	1964			21000.0000	
7439-92-1 Lead	Solid.	Oxide.	T 15100.000000000	GM	1965	1965			30200.0000	
7439-92-1 Lead	Solid.	Oxide.	T 18400.000000000	GM	1966	1966			36800.0000	

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7439-92-1 Lead	Solid.	Oxide.	T 7100.0000000000	GM	1967	1967			14200.0000	
7439-92-1 Lead	Solid.	Oxide.	T 3070.0000000000	GM	1968	1968			6140.00000	
7439-92-1 Lead	Solid.	Oxide.	T 8920.0000000000	GM	1969	1969			17840.0000	
7439-92-1 Lead	Solid.	Oxide.	T 11300.000000000	GM	1970	1970			22600.0000	
7440-43-9 Cadmium	Solid.		T 96.400000000000	GM	1954	1954			192.800000	
7440-43-9 Cadmium	Solid.		T 482.00000000000	GM	1955	1955			964.000000	
7440-43-9 Cadmium	Solid.		T 970.00000000000	GM	1956	1956			1940.00000	
7440-43-9 Cadmium	Solid.		T 1400.0000000000	GM	1957	1957			2800.00000	
7440-43-9 Cadmium	Solid.		T 3260.0000000000	GM	1958	1958			6520.00000	

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7440-43-9 Cadmium	Solid.		T 3580.0000000000	GM	1959	1959			7160.00000	
7440-43-9 Cadmium	Solid.		T 4230.0000000000	GM	1960	1960			8460.00000	
7440-43-9 Cadmium	Solid.		T 3870.0000000000	GM	1961	1961			7740.00000	
7440-43-9 Cadmium	Solid.		T 5040.0000000000	GM	1962	1962			10080.0000	
7440-43-9 Cadmium	Solid.		T 6130.0000000000	GM	1963	1963			12260.0000	
7440-43-9 Cadmium	Solid.		T 5260.0000000000	GM	1964	1964			10520.0000	
7440-43-9 Cadmium	Solid.		T 7560.0000000000	GM	1965	1965			15120.0000	
7440-43-9 Cadmium	Solid.		T 9230.0000000000	GM	1966	1966			18460.0000	
7440-43-9 Cadmium	Solid.		T 3550.0000000000	GM	1967	1967			7100.00000	

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7440-43-9 Cadmium	Solid.		T 1540.0000000000	GM	1968	1968			3080.00000	
7440-43-9 Cadmium	Solid.		T 4460.0000000000	GM	1969	1969			8920.00000	
7440-43-9 Cadmium	Solid.		T 5670.0000000000	GM	1970	1970			11340.0000	
75-09-2 Methylene Chloride	Liquid.		T 14400.000000000	GM	1954	1954			14400.0000	
75-09-2 Methylene Chloride	Liquid.		T 72300.000000000	GM	1955	1955			72300.0000	
75-09-2 Methylene Chloride	Liquid.		T 145000.00000000	GM	1956	1956			145000.000	
75-09-2 Methylene Chloride	Liquid.		T 210000.00000000	GM	1957	1957			210000.000	
75-09-2 Methylene Chloride	Liquid.		T 489000.00000000	GM	1958	1958			489000.000	
75-09-2 Methylene Chloride	Liquid.		T 537000.00000000	GM	1959	1959			537000.000	

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75-09-2 Methylene Chloride	Liquid.		T 635000.00000000	GM	1960	1960			635000.000	
75-09-2 Methylene Chloride	Liquid.		T 581000.00000000	GM	1961	1961			581000.000	
75-09-2 Methylene Chloride	Liquid.		T 756000.00000000	GM	1962	1962			756000.000	
75-09-2 Methylene Chloride	Liquid.		T 920000.00000000	GM	1963	1963			920000.000	
75-09-2 Methylene Chloride	Liquid.		T 789000.00000000	GM	1964	1964			789000.000	
75-09-2 Methylene Chloride	Liquid.		T 1130000.0000000	GM	1965	1965			1130000.00	
75-09-2 Methylene Chloride	Liquid.		T 1380000.0000000	GM	1966	1966			1380000.00	
75-09-2 Methylene Chloride	Liquid.		T 532000.00000000	GM	1967	1967			532000.000	
75-09-2 Methylene Chloride	Liquid.		T 230000.00000000	GM	1968	1968			230000.000	

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Additional information or explanations (indicate pertinent contaminant)
Also contains unknown quantities of calcium oxide and flocculating agents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Liquid.		T 669000.00000000	GM	1969	1969			669000.000	
75-09-2 Methylene Chloride	Liquid.		T 851000.00000000	GM	1970	1970			851000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 1930.0000000000	GM	1954	1954			1930.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 9640.0000000000	GM	1955	1955			9640.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 19400.000000000	GM	1956	1956			19400.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 28100.000000000	GM	1957	1957			28100.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 65200.000000000	GM	1958	1958			65200.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 71600.000000000	GM	1959	1959			71600.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 84700.000000000	GM	1960	1960			84700.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Also contains unknown quantities of calcium oxide and flocculating agents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 77500.000000000	GM	1961	1961			77500.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 101000.00000000	GM	1962	1962			101000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 123000.00000000	GM	1963	1963			123000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 105000.00000000	GM	1964	1964			105000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 151000.00000000	GM	1965	1965			151000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 184000.00000000	GM	1966	1966			184000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 71000.000000000	GM	1967	1967			71000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 30700.000000000	GM	1968	1968			30700.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 89200.000000000	GM	1969	1969			89200.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Also contains unknown quantities of calcium oxide and flocculating agents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Liquid.		T 113000.00000000	GM	1970	1970			113000.000	
12057-24-8 Lithium Oxide	Solid.	Oxide.	Unknown.	GM	1954	1970	N		0.00000000	
7439-97-6 Mercury	Liquid.	Metal.	Unknown.	GM	1954	1970	N		0.00000000	
1304-56-9 Beryllium Oxide	Solid.	Oxide.	Unknown.	GM	1954	1970	N		0.00000000	

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Also contains unknown quantities of calcium oxide and flocculating agents.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241	Solid.	Oxides.	T 283.00000000000	CI	1954	1954				
Am-241	Solid.	Oxides.	T 848.00000000000	CI	1955	1955				
Am-241	Solid.	Oxides.	T 1700.0000000000	CI	1956	1956				
Am-241	Solid.	Oxides.	T 2540.0000000000	CI	1957	1957				
Am-241	Solid.	Oxides.	T 6220.0000000000	CI	1958	1958				
Am-241	Solid.	Oxides.	T 6780.0000000000	CI	1959	1959				
Am-241	Solid.	Oxides.	T 7910.0000000000	CI	1960	1960				
Am-241	Solid.	Oxides.	T 7350.0000000000	CI	1961	1961				
Am-241	Solid.	Oxides.	T 9330.0000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241	Solid.	Oxides.	T 11600.000000000	CI	1963	1963				
Am-241	Solid.	Oxides.	T 9890.0000000000	CI	1964	1964				
Am-241	Solid.	Oxides.	T 14100.000000000	CI	1965	1965				
Am-241	Solid.	Oxides.	T 17200.000000000	CI	1966	1966				
Am-241	Solid.	Oxides.	T 6780.0000000000	CI	1967	1967				
Am-241	Solid.	Oxides.	T 2830.0000000000	CI	1968	1968				
Am-241	Solid.	Oxides.	T 8480.0000000000	CI	1969	1969				
Am-241	Solid.	Oxides.	T 10700.000000000	CI	1970	1970				
Pu-238	Solid.	Oxides.	T .41400000000000	CI	1954	1954				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T 2.0700000000000	CI	1955	1955				
Pu-238	Solid.	Oxides.	T 4.1600000000000	CI	1956	1956				
Pu-238	Solid.	Oxides.	T 6.0300000000000	CI	1957	1957				
Pu-238	Solid.	Oxides.	T 14.000000000000	CI	1958	1958				
Pu-238	Solid.	Oxides.	T 15.400000000000	CI	1959	1959				
Pu-238	Solid.	Oxides.	T 18.200000000000	CI	1960	1960				
Pu-238	Solid.	Oxides.	T 16.600000000000	CI	1961	1961				
Pu-238	Solid.	Oxides.	T 21.600000000000	CI	1962	1962				
Pu-238	Solid.	Oxides.	T 26.300000000000	CI	1963	1963				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T 22.600000000000	CI	1964	1964				
Pu-238	Solid.	Oxides.	T 32.500000000000	CI	1965	1965				
Pu-238	Solid.	Oxides.	T 39.600000000000	CI	1966	1966				
Pu-238	Solid.	Oxides.	T 15.200000000000	CI	1967	1967				
Pu-238	Solid.	Oxides.	T 6.6000000000000	CI	1968	1968				
Pu-238	Solid.	Oxides.	T 19.100000000000	CI	1969	1969				
Pu-238	Solid.	Oxides.	T 24.400000000000	CI	1970	1970				
Pu-239	Solid.	Oxides.	T 14.100000000000	CI	1954	1954				
Pu-239	Solid.	Oxides.	T 70.600000000000	CI	1955	1955				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 142.00000000000	CI	1956	1956				
Pu-239	Solid.	Oxides.	T 206.00000000000	CI	1957	1957				
Pu-239	Solid.	Oxides.	T 478.00000000000	CI	1958	1958				
Pu-239	Solid.	Oxides.	T 524.00000000000	CI	1959	1959				
Pu-239	Solid.	Oxides.	T 621.00000000000	CI	1960	1960				
Pu-239	Solid.	Oxides.	T 568.00000000000	CI	1961	1961				
Pu-239	Solid.	Oxides.	T 739.00000000000	CI	1962	1962				
Pu-239	Solid.	Oxides.	T 899.00000000000	CI	1963	1963				
Pu-239	Solid.	Oxides.	T 771.00000000000	CI	1964	1964				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 1110.0000000000	CI	1965	1965				
Pu-239	Solid.	Oxides.	T 1350.0000000000	CI	1966	1966				
Pu-239	Solid.	Oxides.	T 520.00000000000	CI	1967	1967				
Pu-239	Solid.	Oxides.	T 225.00000000000	CI	1968	1968				
Pu-239	Solid.	Oxides.	T 653.00000000000	CI	1969	1969				
Pu-239	Solid.	Oxides.	T 832.00000000000	CI	1970	1970				
Pu-240	Solid.	Oxides.	T 3.1600000000000	CI	1954	1954				
Pu-240	Solid.	Oxides.	T 15.800000000000	CI	1955	1955				
Pu-240	Solid.	Oxides.	T 31.800000000000	CI	1956	1956				

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 46.100000000000	CI	1957	1957				
Pu-240	Solid.	Oxides.	T 107.00000000000	CI	1958	1958				
Pu-240	Solid.	Oxides.	T 117.00000000000	CI	1959	1959				
Pu-240	Solid.	Oxides.	T 139.00000000000	CI	1960	1960				
Pu-240	Solid.	Oxides.	T 127.00000000000	CI	1961	1961				
Pu-240	Solid.	Oxides.	T 165.00000000000	CI	1962	1962				
Pu-240	Solid.	Oxides.	T 201.00000000000	CI	1963	1963				
Pu-240	Solid.	Oxides.	T 173.00000000000	CI	1964	1964				
Pu-240	Solid.	Oxides.	T 248.00000000000	CI	1965	1965				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 303.00000000000	CI	1966	1966				
Pu-240	Solid.	Oxides.	T 116.00000000000	CI	1967	1967				
Pu-240	Solid.	Oxides.	T 50.400000000000	CI	1968	1968				
Pu-240	Solid.	Oxides.	T 146.00000000000	CI	1969	1969				
Pu-240	Solid.	Oxides.	T 186.00000000000	CI	1970	1970				
Pu-241	Solid.	Oxides.	T 84.600000000000	CI	1954	1954				
Pu-241	Solid.	Oxides.	T 423.00000000000	CI	1955	1955				
Pu-241	Solid.	Oxides.	T 851.00000000000	CI	1956	1956				
Pu-241	Solid.	Oxides.	T 1230.0000000000	CI	1957	1957				

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Additional information or explanations (indicate pertinent contaminant)

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 2860.0000000000	CI	1958	1958				
Pu-241	Solid.	Oxides.	T 3140.0000000000	CI	1959	1959				
Pu-241	Solid.	Oxides.	T 3720.0000000000	CI	1960	1960				
Pu-241	Solid.	Oxides.	T 3400.0000000000	CI	1961	1961				
Pu-241	Solid.	Oxides.	T 4420.0000000000	CI	1962	1962				
Pu-241	Solid.	Oxides.	T 5380.0000000000	CI	1963	1963				
Pu-241	Solid.	Oxides.	T 4620.0000000000	CI	1964	1964				
Pu-241	Solid.	Oxides.	T 6630.0000000000	CI	1965	1965				
Pu-241	Solid.	Oxides.	T 8100.0000000000	CI	1966	1966				

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 3110.0000000000	CI	1967	1967				
Pu-241	Solid.	Oxides.	T 1350.0000000000	CI	1968	1968				
Pu-241	Solid.	Oxides.	T 3910.0000000000	CI	1969	1969				
Pu-241	Solid.	Oxides.	T 4980.0000000000	CI	1970	1970				
Pu-242	Solid.	Oxides.	T .00019000000000	CI	1954	1954				
Pu-242	Solid.	Oxides.	T .00095000000000	CI	1955	1955				
Pu-242	Solid.	Oxides.	T .00191000000000	CI	1956	1956				
Pu-242	Solid.	Oxides.	T .00276000000000	CI	1957	1957				
Pu-242	Solid.	Oxides.	T .00642000000000	CI	1958	1958				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00705000000000	CI	1959	1959				
Pu-242	Solid.	Oxides.	T .00834000000000	CI	1960	1960				
Pu-242	Solid.	Oxides.	T .00763000000000	CI	1961	1961				
Pu-242	Solid.	Oxides.	T .00994000000000	CI	1962	1962				
Pu-242	Solid.	Oxides.	T .01210000000000	CI	1963	1963				
Pu-242	Solid.	Oxides.	T .01040000000000	CI	1964	1964				
Pu-242	Solid.	Oxides.	T .01490000000000	CI	1965	1965				
Pu-242	Solid.	Oxides.	T .01820000000000	CI	1966	1966				
Pu-242	Solid.	Oxides.	T .00699000000000	CI	1967	1967				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00303000000000	CI	1968	1968				
Pu-242	Solid.	Oxides.	T .00878000000000	CI	1969	1969				
Pu-242	Solid.	Oxides.	T .01120000000000	CI	1970	1970				

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Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021. EDF-369 Hazardous Waste Constituents.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 216

1. Preparer: Kudera, Don

2. Date prepared: 01/10/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
4H

6. Waste stream:
Paper, rags, plastic, clothing, cardboard, wood and polyethylene bottles.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Buildings 771, 776, 779, 554, 777, and 707.
6. This buried waste stream is similar to stored waste content codes 330, 336, 337, 900 and 970.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Paper, rags, plastics, surgeons gloves, cloth, overalls and booties. Cardboard, wood, wood filter frames, and polyethylene bottles.

3. Chemical form:
PuO2 and Am oxide, and probably some trace amounts of Pu nitrate and Am nitrate on miscellaneous combustibles.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Two plastic drum bags were used.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 5720.0000000000	GM	1954	1954			5720.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 28600.000000000	GM	1955	1955			28600.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 57600.000000000	GM	1956	1956			57600.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 83300.000000000	GM	1957	1957			83300.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 193000.00000000	GM	1958	1958			193000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 212000.00000000	GM	1959	1959			212000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 251000.00000000	GM	1960	1960			251000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 230000.00000000	GM	1961	1961			230000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 299000.00000000	GM	1962	1962			299000.000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 364000.00000000	GM	1963	1963			364000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 312000.00000000	GM	1964	1964			312000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 449000.00000000	GM	1965	1965			449000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 548000.00000000	GM	1966	1966			548000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 211000.00000000	GM	1967	1967			211000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 91200.000000000	GM	1968	1968			91200.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 265000.00000000	GM	1969	1969			265000.000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 337000.00000000	GM	1970	1970			337000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 14600.000000000	GM	1954	1954			14600.0000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 72800.000000000	GM	1955	1955			72800.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 146000.00000000	GM	1956	1956			146000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 212000.00000000	GM	1957	1957			212000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 492000.00000000	GM	1958	1958			492000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 540000.00000000	GM	1959	1959			540000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 639000.00000000	GM	1960	1960			639000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 585000.00000000	GM	1961	1961			585000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 761000.00000000	GM	1962	1962			761000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 926000.00000000	GM	1963	1963			926000.000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 794000.00000000	GM	1964	1964			794000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 1140000.0000000	GM	1965	1965			1140000.00	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 1390000.0000000	GM	1966	1966			1390000.00	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 536000.00000000	GM	1967	1967			536000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 232000.00000000	GM	1968	1968			232000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 673000.00000000	GM	1969	1969			673000.000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 857000.00000000	GM	1970	1970			857000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 5720.0000000000	GM	1954	1954			5720.00000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 28600.000000000	GM	1955	1955			28600.0000	

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75-09-2 Methylene Chloride	Absorbed liquid.		T 57600.000000000	GM	1956	1956			57600.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 83300.000000000	GM	1957	1957			83300.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 193000.00000000	GM	1958	1958			193000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 212000.00000000	GM	1959	1959			212000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 251000.00000000	GM	1960	1960			251000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 230000.00000000	GM	1961	1961			230000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 299000.00000000	GM	1962	1962			299000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 364000.00000000	GM	1963	1963			364000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 312000.00000000	GM	1964	1964			312000.000	

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75-09-2 Methylene Chloride	Absorbed liquid.		T 449000.00000000	GM	1965	1965			449000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 548000.00000000	GM	1966	1966			548000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 211000.00000000	GM	1967	1967			211000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 91200.000000000	GM	1968	1968			91200.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 265000.00000000	GM	1969	1969			265000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 337000.00000000	GM	1970	1970			337000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 13000.000000000	GM	1954	1954			13000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 64800.000000000	GM	1955	1955			64800.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 130000.00000000	GM	1956	1956			130000.000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 189000.00000000	GM	1957	1957			189000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 438000.00000000	GM	1958	1958			438000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 481000.00000000	GM	1959	1959			481000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 570000.00000000	GM	1960	1960			570000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 521000.00000000	GM	1961	1961			521000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 678000.00000000	GM	1962	1962			678000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 825000.00000000	GM	1963	1963			825000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 708000.00000000	GM	1964	1964			708000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 1020000.0000000	GM	1965	1965			1020000.00	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 1240000.0000000	GM	1966	1966			1240000.00	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 477000.00000000	GM	1967	1967			477000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 207000.00000000	GM	1968	1968			207000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 600000.00000000	GM	1969	1969			600000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 764000.00000000	GM	1970	1970			764000.000	
None-NC. Nitrocellulose	Absorbed nitric acid on cellulose.	Nitrocellulose.	Unknown.	GM	1954	1970	N		0.00000000	

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241			T 48.700000000000	CI	1954	1954				
Am-241			T 146.00000000000	CI	1955	1955				
Am-241			T 292.00000000000	CI	1956	1956				
Am-241			T 438.00000000000	CI	1957	1957				
Am-241			T 1070.0000000000	CI	1958	1958				
Am-241			T 1170.0000000000	CI	1959	1959				
Am-241			T 1360.0000000000	CI	1960	1960				
Am-241			T 1260.0000000000	CI	1961	1961				
Am-241			T 1610.0000000000	CI	1962	1962				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241			T 2000.0000000000	CI	1963	1963				
Am-241			T 1700.0000000000	CI	1964	1964				
Am-241			T 2430.0000000000	CI	1965	1965				
Am-241			T 2970.0000000000	CI	1966	1966				
Am-241			T 1170.0000000000	CI	1967	1967				
Am-241			T 487.00000000000	CI	1968	1968				
Am-241			T 1460.0000000000	CI	1969	1969				
Am-241			T 1850.0000000000	CI	1970	1970				
Pu-238		Oxides.	T .26200000000000	CI	1954	1954				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238		Oxides.	T 1.3100000000000	CI	1955	1955				
Pu-238		Oxides.	T 2.6400000000000	CI	1956	1956				
Pu-238		Oxides.	T 3.8200000000000	CI	1957	1957				
Pu-238		Oxides.	T 8.8700000000000	CI	1958	1958				
Pu-238		Oxides.	T 9.7400000000000	CI	1959	1959				
Pu-238		Oxides.	T 11.500000000000	CI	1960	1960				
Pu-238		Oxides.	T 10.500000000000	CI	1961	1961				
Pu-238		Oxides.	T 13.700000000000	CI	1962	1962				
Pu-238		Oxides.	T 16.700000000000	CI	1963	1963				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238		Oxides.	T 14.300000000000	CI	1964	1964				
Pu-238		Oxides.	T 20.600000000000	CI	1965	1965				
Pu-238		Oxides.	T 25.100000000000	CI	1966	1966				
Pu-238		Oxides.	T 9.6600000000000	CI	1967	1967				
Pu-238		Oxides.	T 4.1800000000000	CI	1968	1968				
Pu-238		Oxides.	T 12.100000000000	CI	1969	1969				
Pu-238		Oxides.	T 15.400000000000	CI	1970	1970				
Pu-239		Oxides.	T 8.9600000000000	CI	1954	1954				
Pu-239		Oxides.	T 44.800000000000	CI	1955	1955				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239		Oxides.	T 90.100000000000	CI	1956	1956				
Pu-239		Oxides.	T 130.00000000000	CI	1957	1957				
Pu-239		Oxides.	T 303.00000000000	CI	1958	1958				
Pu-239		Oxides.	T 332.00000000000	CI	1959	1959				
Pu-239		Oxides.	T 394.00000000000	CI	1960	1960				
Pu-239		Oxides.	T 360.00000000000	CI	1961	1961				
Pu-239		Oxides.	T 468.00000000000	CI	1962	1962				
Pu-239		Oxides.	T 570.00000000000	CI	1963	1963				
Pu-239		Oxides.	T 489.00000000000	CI	1964	1964				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239		Oxides.	T 702.00000000000	CI	1965	1965				
Pu-239		Oxides.	T 858.00000000000	CI	1966	1966				
Pu-239		Oxides.	T 330.00000000000	CI	1967	1967				
Pu-239		Oxides.	T 143.00000000000	CI	1968	1968				
Pu-239		Oxides.	T 414.00000000000	CI	1969	1969				
Pu-239		Oxides.	T 527.00000000000	CI	1970	1970				
Pu-240		Oxides.	T 2.0000000000000	CI	1954	1954				
Pu-240		Oxides.	T 10.000000000000	CI	1955	1955				
Pu-240		Oxides.	T 20.200000000000	CI	1956	1956				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240		Oxides.	T 29.200000000000	CI	1957	1957				
Pu-240		Oxides.	T 67.800000000000	CI	1958	1958				
Pu-240		Oxides.	T 74.500000000000	CI	1959	1959				
Pu-240		Oxides.	T 88.100000000000	CI	1960	1960				
Pu-240		Oxides.	T 80.600000000000	CI	1961	1961				
Pu-240		Oxides.	T 105.00000000000	CI	1962	1962				
Pu-240		Oxides.	T 128.00000000000	CI	1963	1963				
Pu-240		Oxides.	T 109.00000000000	CI	1964	1964				
Pu-240		Oxides.	T 157.00000000000	CI	1965	1965				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240		Oxides.	T 192.00000000000	CI	1966	1966				
Pu-240		Oxides.	T 73.800000000000	CI	1967	1967				
Pu-240		Oxides.	T 32.000000000000	CI	1968	1968				
Pu-240		Oxides.	T 92.800000000000	CI	1969	1969				
Pu-240		Oxides.	T 118.00000000000	CI	1970	1970				
Pu-241		Oxides.	T 53.600000000000	CI	1954	1954				
Pu-241		Oxides.	T 268.00000000000	CI	1955	1955				
Pu-241		Oxides.	T 540.00000000000	CI	1956	1956				
Pu-241		Oxides.	T 781.00000000000	CI	1957	1957				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxides.	T 1810.0000000000	CI	1958	1958				
Pu-241		Oxides.	T 1990.0000000000	CI	1959	1959				
Pu-241		Oxides.	T 2360.0000000000	CI	1960	1960				
Pu-241		Oxides.	T 2160.0000000000	CI	1961	1961				
Pu-241		Oxides.	T 2800.0000000000	CI	1962	1962				
Pu-241		Oxides.	T 3410.0000000000	CI	1963	1963				
Pu-241		Oxides.	T 2930.0000000000	CI	1964	1964				
Pu-241		Oxides.	T 4210.0000000000	CI	1965	1965				
Pu-241		Oxides.	T 5140.0000000000	CI	1966	1966				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxides.	T 1970.0000000000	CI	1967	1967				
Pu-241		Oxides.	T 855.00000000000	CI	1968	1968				
Pu-241		Oxides.	T 2480.0000000000	CI	1969	1969				
Pu-241		Oxides.	T 3160.0000000000	CI	1970	1970				
Pu-242		Oxides.	T .00012000000000	CI	1954	1954				
Pu-242		Oxides.	T .00060200000000	CI	1955	1955				
Pu-242		Oxides.	T .00121000000000	CI	1956	1956				
Pu-242		Oxides.	T .00175000000000	CI	1957	1957				
Pu-242		Oxides.	T .00407000000000	CI	1958	1958				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242		Oxides.	T .00447000000000	CI	1959	1959				
Pu-242		Oxides.	T .00529000000000	CI	1960	1960				
Pu-242		Oxides.	T .00484000000000	CI	1961	1961				
Pu-242		Oxides.	T .00630000000000	CI	1962	1962				
Pu-242		Oxides.	T .00766000000000	CI	1963	1963				
Pu-242		Oxides.	T .00657000000000	CI	1964	1964				
Pu-242		Oxides.	T .00945000000000	CI	1965	1965				
Pu-242		Oxides.	T .01150000000000	CI	1966	1966				
Pu-242		Oxides.	T .00443000000000	CI	1967	1967				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242		Oxides.	T .00192000000000	CI	1968	1968				
Pu-242		Oxides.	T .00557000000000	CI	1969	1969				
Pu-242		Oxides.	T .00709000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, Content Code Assessments for INEL Contact Handled Stored TRU Wastes, T. L. Clements. EDF-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:
Chemical hazards, these are volatile and some of them would have evaporated. Nitric acid reacted with cellulose to form nitrocellulose which is used in the manufacture of explosives.

8. Key assumptions used to deal with the unknowns:
Chemical hazards, assumed no evaporation took place. The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 217

1. Preparer: Kudera, Don

2. Date prepared: 06/28/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
5H

6. Waste stream:
Concrete and brick.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 12133.6000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Buildings 771 and 776.
6. This buried waste stream is similar to stored waste content codes 371 and 960.
9. The average weight per drum is 390 pounds, the average weight per box is 3,226 pounds. Total weight of drums is 427,830 pounds, total weight of boxes is 148,396 pounds. Total waste is 576,226 pounds. Waste stream contains 1,097 55-gallon drums and 46 4x4x7 ft. boxes.

1. General physical form (see attached list)
Concrete, brick, and asphalt.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste consists of whole and broken pieces of construction brick, cinderblocks, and fire brick. Waste may also contain limited amounts of other noncombustible and combustible waste.

3. Chemical form:
Pu oxides on brick, etc.

4. Inner packaging: [ ] plastic bag [X] plastic liner [ ] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Drums were packaged three different ways: a) Double-contained in plastic and then placed into Fibre-Paks. Two Fibre-Paks were placed in a prepared 55-gallon drum. b) Double-contained in plastic and place directly into a prepared 55-gallon drum. c) No packaging; placed directly into a prepared 55-gallon drum. Boxes were packaged two different ways. a) Double-contained in plastic and placed into a prepared box. b) No packaging; placed directly into a prepared box.
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
No hazardous material is identified in this content code.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .05500000000000	CI	1954	1954				
Pu-238	Solid.	Oxides.	T .27500000000000	CI	1955	1955				
Pu-238	Solid.	Oxides.	T .55400000000000	CI	1956	1956				
Pu-238	Solid.	Oxides.	T .80100000000000	CI	1957	1957				
Pu-238	Solid.	Oxides.	T 1.8600000000000	CI	1958	1958				
Pu-238	Solid.	Oxides.	T 2.0400000000000	CI	1959	1959				
Pu-238	Solid.	Oxides.	T 2.4200000000000	CI	1960	1960				
Pu-238	Solid.	Oxides.	T 2.2100000000000	CI	1961	1961				
Pu-238	Solid.	Oxides.	T 2.8800000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T 3.5000000000000	CI	1963	1963				
Pu-238	Solid.	Oxides.	T 3.0000000000000	CI	1964	1964				
Pu-238	Solid.	Oxides.	T 4.3200000000000	CI	1965	1965				
Pu-238	Solid.	Oxides.	T 5.2700000000000	CI	1966	1966				
Pu-238	Solid.	Oxides.	T 2.0200000000000	CI	1967	1967				
Pu-238	Solid.	Oxides.	T .87700000000000	CI	1968	1968				
Pu-238	Solid.	Oxides.	T 2.5400000000000	CI	1969	1969				
Pu-238	Solid.	Oxides.	T 3.2400000000000	CI	1970	1970				
Pu-239	Solid.	Oxides.	T 1.8800000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 9.3900000000000	CI	1955	1955				
Pu-239	Solid.	Oxides.	T 18.900000000000	CI	1956	1956				
Pu-239	Solid.	Oxides.	T 27.300000000000	CI	1957	1957				
Pu-239	Solid.	Oxides.	T 63.500000000000	CI	1958	1958				
Pu-239	Solid.	Oxides.	T 69.700000000000	CI	1959	1959				
Pu-239	Solid.	Oxides.	T 82.500000000000	CI	1960	1960				
Pu-239	Solid.	Oxides.	T 75.500000000000	CI	1961	1961				
Pu-239	Solid.	Oxides.	T 98.200000000000	CI	1962	1962				
Pu-239	Solid.	Oxides.	T 119.00000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 102.00000000000	CI	1964	1964				
Pu-239	Solid.	Oxides.	T 147.00000000000	CI	1965	1965				
Pu-239	Solid.	Oxides.	T 180.00000000000	CI	1966	1966				
Pu-239	Solid.	Oxides.	T 69.100000000000	CI	1967	1967				
Pu-239	Solid.	Oxides.	T 29.900000000000	CI	1968	1968				
Pu-239	Solid.	Oxides.	T 86.800000000000	CI	1969	1969				
Pu-239	Solid.	Oxides.	T 110.00000000000	CI	1970	1970				
Pu-240	Solid.	Oxides.	T .42000000000000	CI	1954	1954				
Pu-240	Solid.	Oxides.	T 2.1000000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 4.2300000000000	CI	1956	1956				
Pu-240	Solid.	Oxides.	T 6.1200000000000	CI	1957	1957				
Pu-240	Solid.	Oxides.	T 14.200000000000	CI	1958	1958				
Pu-240	Solid.	Oxides.	T 15.600000000000	CI	1959	1959				
Pu-240	Solid.	Oxides.	T 18.500000000000	CI	1960	1960				
Pu-240	Solid.	Oxides.	T 16.900000000000	CI	1961	1961				
Pu-240	Solid.	Oxides.	T 22.000000000000	CI	1962	1962				
Pu-240	Solid.	Oxides.	T 26.800000000000	CI	1963	1963				
Pu-240	Solid.	Oxides.	T 22.900000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 33.000000000000	CI	1965	1965				
Pu-240	Solid.	Oxides.	T 40.300000000000	CI	1966	1966				
Pu-240	Solid.	Oxides.	T 15.500000000000	CI	1967	1967				
Pu-240	Solid.	Oxides.	T 6.7000000000000	CI	1968	1968				
Pu-240	Solid.	Oxides.	T 19.400000000000	CI	1969	1969				
Pu-240	Solid.	Oxides.	T 24.800000000000	CI	1970	1970				
Pu-241	Solid.	Oxides.	T 11.200000000000	CI	1954	1954				
Pu-241	Solid.	Oxides.	T 56.200000000000	CI	1955	1955				
Pu-241	Solid.	Oxides.	T 113.00000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 164.00000000000	CI	1957	1957				
Pu-241	Solid.	Oxides.	T 380.00000000000	CI	1958	1958				
Pu-241	Solid.	Oxides.	T 417.00000000000	CI	1959	1959				
Pu-241	Solid.	Oxides.	T 494.00000000000	CI	1960	1960				
Pu-241	Solid.	Oxides.	T 452.00000000000	CI	1961	1961				
Pu-241	Solid.	Oxides.	T 588.00000000000	CI	1962	1962				
Pu-241	Solid.	Oxides.	T 715.00000000000	CI	1963	1963				
Pu-241	Solid.	Oxides.	T 614.00000000000	CI	1964	1964				
Pu-241	Solid.	Oxides.	T 882.00000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 1080.0000000000	CI	1966	1966				
Pu-241	Solid.	Oxides.	T 414.00000000000	CI	1967	1967				
Pu-241	Solid.	Oxides.	T 179.00000000000	CI	1968	1968				
Pu-241	Solid.	Oxides.	T 520.00000000000	CI	1969	1969				
Pu-241	Solid.	Oxides.	T 662.00000000000	CI	1970	1970				
Pu-242	Solid.	Oxides.	T .00002520000000	CI	1954	1954				
Pu-242	Solid.	Oxides.	T .00012600000000	CI	1955	1955				
Pu-242	Solid.	Oxides.	T .00025400000000	CI	1956	1956				
Pu-242	Solid.	Oxides.	T .00036800000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00085400000000	CI	1958	1958				
Pu-242	Solid.	Oxides.	T .00093700000000	CI	1959	1959				
Pu-242	Solid.	Oxides.	T .00111000000000	CI	1960	1960				
Pu-242	Solid.	Oxides.	T .00101000000000	CI	1961	1961				
Pu-242	Solid.	Oxides.	T .00132000000000	CI	1962	1962				
Pu-242	Solid.	Oxides.	T .00161000000000	CI	1963	1963				
Pu-242	Solid.	Oxides.	T .00138000000000	CI	1964	1964				
Pu-242	Solid.	Oxides.	T .00198000000000	CI	1965	1965				
Pu-242	Solid.	Oxides.	T .00242000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00092900000000	CI	1967	1967				
Pu-242	Solid.	Oxides.	T .00040200000000	CI	1968	1968				
Pu-242	Solid.	Oxides.	T .00117000000000	CI	1969	1969				
Pu-242	Solid.	Oxides.	T .00149000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-FI-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste," by Thomas L. Clements Jr. EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 219

1. Preparer: Kudera, Don

2. Date prepared: 01/10/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
6H

6. Waste stream:
Filters.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount Units Unknown.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. All plutonium areas.
6. This buried waste stream is similar to stored waste content codes 335, 338, 360, and 490.
9. The average weight per drum is 200 pounds and the average weight per box is 1892 pounds. Total drum weight is 11,600 pounds, total weight of the boxes is 1,356,564 pounds. Total pounds is 1,368,164 pounds. This waste stream contains 58 55-gallon drums and 717 4'x4'x7' boxes (1971 to 1975).

1. General physical form (see attached list)
HEPA filters.
[X] other (specify)
23.

2. Details on physical form(particularly confinement related)
Waste primarily consists of whole HEPA filters. Pre-1976 waste (primarily drums) will contain CWS filters. Also included are prefilters, all ventilation intake and exhaust system filters.

3. Chemical form:
Pu and Am oxide with trace amounts of Pu and Am nitrates.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
Content code 490 (drums) should be similar to content code 335 (drums).

7. Comments (specify number of pertinent question):
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Solid.		T 902.00000000000	GM	1954	1954			902.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 4510.0000000000	GM	1955	1955			4510.00000	
56-23-5 Carbon Tetrachloride	Solid.		T 9080.0000000000	GM	1956	1956			9080.00000	
56-23-5 Carbon Tetrachloride	Solid.		T 13100.000000000	GM	1957	1957			13100.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 30500.000000000	GM	1958	1958			30500.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 33500.000000000	GM	1959	1959			33500.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 39600.000000000	GM	1960	1960			39600.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 36300.000000000	GM	1961	1961			36300.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 47200.000000000	GM	1962	1962			47200.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Some drums contain 1 to 2 quarts of absorbent (Oil-Dri). Some boxes contain up to 50 pounds of Portland Cement.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Solid.		T 57400.000000000	GM	1963	1963			57400.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 49200.000000000	GM	1964	1964			49200.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 70800.000000000	GM	1965	1965			70800.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 86400.000000000	GM	1966	1966			86400.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 33200.000000000	GM	1967	1967			33200.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 14400.000000000	GM	1968	1968			14400.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 41700.000000000	GM	1969	1969			41700.0000	
56-23-5 Carbon Tetrachloride	Solid.		T 53100.000000000	GM	1970	1970			53100.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 902.00000000000	GM	1954	1954			902.000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Some drums contain 1 to 2 quarts of absorbent (Oil-Dri). Some boxes contain up to 50 pounds of Portland Cement.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Solid.		T 4510.0000000000	GM	1955	1955			4510.00000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 9080.0000000000	GM	1956	1956			9080.00000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 13100.000000000	GM	1957	1957			13100.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 30500.000000000	GM	1958	1958			30500.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 33500.000000000	GM	1959	1959			33500.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 39600.000000000	GM	1960	1960			39600.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 36300.000000000	GM	1961	1961			36300.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 47200.000000000	GM	1962	1962			47200.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 57400.000000000	GM	1963	1963			57400.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Some drums contain 1 to 2 quarts of absorbent (Oil-Dri). Some boxes contain up to 50 pounds of Portland Cement.

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Solid.		T 49200.000000000	GM	1964	1964			49200.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 70800.000000000	GM	1965	1965			70800.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 86400.000000000	GM	1966	1966			86400.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 33200.000000000	GM	1967	1967			33200.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 14400.000000000	GM	1968	1968			14400.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 41700.000000000	GM	1969	1969			41700.0000	
71-55-6 1,1,1-Trichloroethane	Solid.		T 53100.000000000	GM	1970	1970			53100.0000	
75-09-2 Methylene Chloride	Solid.		T 272.00000000000	GM	1954	1954			272.000000	
75-09-2 Methylene Chloride	Solid.		T 1360.0000000000	GM	1955	1955			1360.00000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Solid.		T 2740.0000000000	GM	1956	1956			2740.00000	
75-09-2 Methylene Chloride	Solid.		T 3970.0000000000	GM	1957	1957			3970.00000	
75-09-2 Methylene Chloride	Solid.		T 9210.0000000000	GM	1958	1958			9210.00000	
75-09-2 Methylene Chloride	Solid.		T 10100.000000000	GM	1959	1959			10100.0000	
75-09-2 Methylene Chloride	Solid.		T 12000.000000000	GM	1960	1960			12000.0000	
75-09-2 Methylene Chloride	Solid.		T 10900.000000000	GM	1961	1961			10900.0000	
75-09-2 Methylene Chloride	Solid.		T 14200.000000000	GM	1962	1962			14200.0000	
75-09-2 Methylene Chloride	Solid.		T 17300.000000000	GM	1963	1963			17300.0000	
75-09-2 Methylene Chloride	Solid.		T 14900.000000000	GM	1964	1964			14900.0000	

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75-09-2 Methylene Chloride	Solid.		T 21400.000000000	GM	1965	1965			21400.0000	
75-09-2 Methylene Chloride	Solid.		T 26100.000000000	GM	1966	1966			26100.0000	
75-09-2 Methylene Chloride	Solid.		T 10000.000000000	GM	1967	1967			10000.0000	
75-09-2 Methylene Chloride	Solid.		T 4340.0000000000	GM	1968	1968			4340.00000	
75-09-2 Methylene Chloride	Solid.		T 12600.000000000	GM	1969	1969			12600.0000	
75-09-2 Methylene Chloride	Solid.		T 16000.000000000	GM	1970	1970			16000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 454.00000000000	GM	1954	1954			454.000000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 2270.0000000000	GM	1955	1955			2270.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 4570.0000000000	GM	1956	1956			4570.00000	

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76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 6610.0000000000	GM	1957	1957			6610.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 15300.000000000	GM	1958	1958			15300.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 16800.000000000	GM	1959	1959			16800.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 19900.000000000	GM	1960	1960			19900.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 18200.000000000	GM	1961	1961			18200.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 23700.000000000	GM	1962	1962			23700.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 28900.000000000	GM	1963	1963			28900.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 24800.000000000	GM	1964	1964			24800.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 35600.000000000	GM	1965	1965			35600.0000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 43500.000000000	GM	1966	1966			43500.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 16700.000000000	GM	1967	1967			16700.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 7230.0000000000	GM	1968	1968			7230.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 21000.000000000	GM	1969	1969			21000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 26700.000000000	GM	1970	1970			26700.0000	
7697-37-2 Nitric Acid	Liquid absorbed on filter material.	Reacted with filters to form nitrates.	Unknown.	GM	1954	1970	N		0.00000000	

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241		Oxide with a trace of nitrates.	T 2.9000000000000	CI	1954	1954				
Am-241		Oxide with a trace of nitrates.	T 8.6900000000000	CI	1955	1955				
Am-241		Oxide with a trace of nitrates.	T 17.400000000000	CI	1956	1956				
Am-241		Oxide with a trace of nitrates.	T 26.100000000000	CI	1957	1957				
Am-241		Oxide with a trace of nitrates.	T 63.700000000000	CI	1958	1958				
Am-241		Oxide with a trace of nitrates.	T 69.500000000000	CI	1959	1959				
Am-241		Oxide with a trace of nitrates.	T 81.100000000000	CI	1960	1960				
Am-241		Oxide with a trace of nitrates.	T 75.300000000000	CI	1961	1961				
Am-241		Oxide with a trace of nitrates.	T 95.600000000000	CI	1962	1962				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241		Oxide with a trace of nitrates.	T 119.00000000000	CI	1963	1963				
Am-241		Oxide with a trace of nitrates.	T 101.00000000000	CI	1964	1964				
Am-241		Oxide with a trace of nitrates.	T 145.00000000000	CI	1965	1965				
Am-241		Oxide with a trace of nitrates.	T 177.00000000000	CI	1966	1966				
Am-241		Oxide with a trace of nitrates.	T 69.500000000000	CI	1967	1967				
Am-241		Oxide with a trace of nitrates.	T 29.000000000000	CI	1968	1968				
Am-241		Oxide with a trace of nitrates.	T 86.900000000000	CI	1969	1969				
Am-241		Oxide with a trace of nitrates.	T 110.00000000000	CI	1970	1970				
Pu-238		Oxide with a trace of nitrates.	T .34800000000000	CI	1954	1954				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238		Oxide with a trace of nitrates.	T 1.7400000000000	CI	1955	1955				
Pu-238		Oxide with a trace of nitrates.	T 3.5000000000000	CI	1956	1956				
Pu-238		Oxide with a trace of nitrates.	T 5.0700000000000	CI	1957	1957				
Pu-238		Oxide with a trace of nitrates.	T 11.800000000000	CI	1958	1958				
Pu-238		Oxide with a trace of nitrates.	T 12.900000000000	CI	1959	1959				
Pu-238		Oxide with a trace of nitrates.	T 15.300000000000	CI	1960	1960				
Pu-238		Oxide with a trace of nitrates.	T 14.000000000000	CI	1961	1961				
Pu-238		Oxide with a trace of nitrates.	T 18.200000000000	CI	1962	1962				
Pu-238		Oxide with a trace of nitrates.	T 22.100000000000	CI	1963	1963				

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Pu-238		Oxide with a trace of nitrates.	T 19.000000000000	CI	1964	1964				
Pu-238		Oxide with a trace of nitrates.	T 27.300000000000	CI	1965	1965				
Pu-238		Oxide with a trace of nitrates.	T 33.300000000000	CI	1966	1966				
Pu-238		Oxide with a trace of nitrates.	T 12.800000000000	CI	1967	1967				
Pu-238		Oxide with a trace of nitrates.	T 5.5400000000000	CI	1968	1968				
Pu-238		Oxide with a trace of nitrates.	T 16.100000000000	CI	1969	1969				
Pu-238		Oxide with a trace of nitrates.	T 20.500000000000	CI	1970	1970				
Pu-239		Oxide with a trace of nitrates.	T 11.900000000000	CI	1954	1954				
Pu-239		Oxide with a trace of nitrates.	T 59.400000000000	CI	1955	1955				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239		Oxide with a trace of nitrates.	T 120.00000000000	CI	1956	1956				
Pu-239		Oxide with a trace of nitrates.	T 173.00000000000	CI	1957	1957				
Pu-239		Oxide with a trace of nitrates.	T 402.00000000000	CI	1958	1958				
Pu-239		Oxide with a trace of nitrates.	T 441.00000000000	CI	1959	1959				
Pu-239		Oxide with a trace of nitrates.	T 522.00000000000	CI	1960	1960				
Pu-239		Oxide with a trace of nitrates.	T 477.00000000000	CI	1961	1961				
Pu-239		Oxide with a trace of nitrates.	T 621.00000000000	CI	1962	1962				
Pu-239		Oxide with a trace of nitrates.	T 756.00000000000	CI	1963	1963				
Pu-239		Oxide with a trace of nitrates.	T 648.00000000000	CI	1964	1964				

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Pu-239		Oxide with a trace of nitrates.	T 932.00000000000	CI	1965	1965				
Pu-239		Oxide with a trace of nitrates.	T 1140.0000000000	CI	1966	1966				
Pu-239		Oxide with a trace of nitrates.	T 437.00000000000	CI	1967	1967				
Pu-239		Oxide with a trace of nitrates.	T 189.00000000000	CI	1968	1968				
Pu-239		Oxide with a trace of nitrates.	T 549.00000000000	CI	1969	1969				
Pu-239		Oxide with a trace of nitrates.	T 699.00000000000	CI	1970	1970				
Pu-240		Oxide with a trace of nitrates.	T 2.6600000000000	CI	1954	1954				
Pu-240		Oxide with a trace of nitrates.	T 13.300000000000	CI	1955	1955				
Pu-240		Oxide with a trace of nitrates.	T 26.800000000000	CI	1956	1956				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240		Oxide with a trace of nitrates.	T 38.700000000000	CI	1957	1957				
Pu-240		Oxide with a trace of nitrates.	T 89.900000000000	CI	1958	1958				
Pu-240		Oxide with a trace of nitrates.	T 98.700000000000	CI	1959	1959				
Pu-240		Oxide with a trace of nitrates.	T 117.00000000000	CI	1960	1960				
Pu-240		Oxide with a trace of nitrates.	T 107.00000000000	CI	1961	1961				
Pu-240		Oxide with a trace of nitrates.	T 139.00000000000	CI	1962	1962				
Pu-240		Oxide with a trace of nitrates.	T 169.00000000000	CI	1963	1963				
Pu-240		Oxide with a trace of nitrates.	T 145.00000000000	CI	1964	1964				
Pu-240		Oxide with a trace of nitrates.	T 209.00000000000	CI	1965	1965				

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Pu-240		Oxide with a trace of nitrates.	T 255.00000000000	CI	1966	1966				
Pu-240		Oxide with a trace of nitrates.	T 97.900000000000	CI	1967	1967				
Pu-240		Oxide with a trace of nitrates.	T 42.400000000000	CI	1968	1968				
Pu-240		Oxide with a trace of nitrates.	T 123.00000000000	CI	1969	1969				
Pu-240		Oxide with a trace of nitrates.	T 156.00000000000	CI	1970	1970				
Pu-241		Oxide with a trace of nitrates.	T 71.100000000000	CI	1954	1954				
Pu-241		Oxide with a trace of nitrates.	T 356.00000000000	CI	1955	1955				
Pu-241		Oxide with a trace of nitrates.	T 716.00000000000	CI	1956	1956				
Pu-241		Oxide with a trace of nitrates.	T 1040.0000000000	CI	1957	1957				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxide with a trace of nitrates.	T 2400.0000000000	CI	1958	1958				
Pu-241		Oxide with a trace of nitrates.	T 2640.0000000000	CI	1959	1959				
Pu-241		Oxide with a trace of nitrates.	T 3120.0000000000	CI	1960	1960				
Pu-241		Oxide with a trace of nitrates.	T 2860.0000000000	CI	1961	1961				
Pu-241		Oxide with a trace of nitrates.	T 3720.0000000000	CI	1962	1962				
Pu-241		Oxide with a trace of nitrates.	T 4520.0000000000	CI	1963	1963				
Pu-241		Oxide with a trace of nitrates.	T 3880.0000000000	CI	1964	1964				
Pu-241		Oxide with a trace of nitrates.	T 5580.0000000000	CI	1965	1965				
Pu-241		Oxide with a trace of nitrates.	T 6810.0000000000	CI	1966	1966				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxide with a trace of nitrates.	T 2620.0000000000	CI	1967	1967				
Pu-241		Oxide with a trace of nitrates.	T 1130.0000000000	CI	1968	1968				
Pu-241		Oxide with a trace of nitrates.	T 3290.0000000000	CI	1969	1969				
Pu-241		Oxide with a trace of nitrates.	T 4190.0000000000	CI	1970	1970				
Pu-242		Oxide with a trace of nitrates.	T .00016000000000	CI	1954	1954				
Pu-242		Oxide with a trace of nitrates.	T .00079800000000	CI	1955	1955				
Pu-242		Oxide with a trace of nitrates.	T .00161000000000	CI	1956	1956				
Pu-242		Oxide with a trace of nitrates.	T .00232000000000	CI	1957	1957				
Pu-242		Oxide with a trace of nitrates.	T .00540000000000	CI	1958	1958				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242		Oxide with a trace of nitrates.	T .00593000000000	CI	1959	1959				
Pu-242		Oxide with a trace of nitrates.	T .00702000000000	CI	1960	1960				
Pu-242		Oxide with a trace of nitrates.	T .00642000000000	CI	1961	1961				
Pu-242		Oxide with a trace of nitrates.	T .00835000000000	CI	1962	1962				
Pu-242		Oxide with a trace of nitrates.	T .01020000000000	CI	1963	1963				
Pu-242		Oxide with a trace of nitrates.	T .00871000000000	CI	1964	1964				
Pu-242		Oxide with a trace of nitrates.	T .01250000000000	CI	1965	1965				
Pu-242		Oxide with a trace of nitrates.	T .01530000000000	CI	1966	1966				
Pu-242		Oxide with a trace of nitrates.	T .00588000000000	CI	1967	1967				

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Pu-242		Oxide with a trace of nitrates.	T .00254000000000	CI	1968	1968				
Pu-242		Oxide with a trace of nitrates.	T .00738000000000	CI	1969	1969				
Pu-242		Oxide with a trace of nitrates.	T .00940000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements, Jr.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 218

1. Preparer: Kudera, Don

2. Date prepared: 06/21/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
7H

6. Waste stream:
Glass.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 3476.3000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Buildings - all plutonium areas (771, 559, etc.)
6. This buried waste stream is similar to stored waste content codes 440, 441, and 442.
9. The average weight per drum is 232 pounds, total drum weight is 254,736 pounds. The average weight per box is 2,290 pounds, total box weight is 2,290. Total pounds for this waste stream is 257,026.

1. General physical form (see attached list)
Glass.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste consists of glass in the form of sample vials and bottles, lead-taped sample vials, ion exchange columns, dissolver pots, laboratory glassware, glovebox windows (glass, plexiglass, and leaded glass), crushed glass, ground glass, and raschig rings.

3. Chemical form:
Pu oxides and Pu nitrates on glass.

4. Inner packaging: [ ] plastic bag [X] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic bottles.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. PB and PL.
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Content code 440 contains some leaded glass. No hazardous materials are identified to be present.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxide and nitrates.	T .23600000000000	CI	1954	1954				
Pu-238	Solid.	Oxide and nitrates.	T 1.1800000000000	CI	1955	1955				
Pu-238	Solid.	Oxide and nitrates.	T 2.3800000000000	CI	1956	1956				
Pu-238	Solid.	Oxide and nitrates.	T 3.4400000000000	CI	1957	1957				
Pu-238	Solid.	Oxide and nitrates.	T 8.0000000000000	CI	1958	1958				
Pu-238	Solid.	Oxide and nitrates.	T 8.7800000000000	CI	1959	1959				
Pu-238	Solid.	Oxide and nitrates.	T 10.400000000000	CI	1960	1960				
Pu-238	Solid.	Oxide and nitrates.	T 9.5000000000000	CI	1961	1961				
Pu-238	Solid.	Oxide and nitrates.	T 12.400000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?*	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxide and nitrates.	T 15.000000000000	CI	1963	1963				
Pu-238	Solid.	Oxide and nitrates.	T 12.900000000000	CI	1964	1964				
Pu-238	Solid.	Oxide and nitrates.	T 18.500000000000	CI	1965	1965				
Pu-238	Solid.	Oxide and nitrates.	T 22.600000000000	CI	1966	1966				
Pu-238	Solid.	Oxide and nitrates.	T 8.7000000000000	CI	1967	1967				
Pu-238	Solid.	Oxide and nitrates.	T 3.7700000000000	CI	1968	1968				
Pu-238	Solid.	Oxide and nitrates.	T 10.900000000000	CI	1969	1969				
Pu-238	Solid.	Oxide and nitrates.	T 13.900000000000	CI	1970	1970				
Pu-239	Solid.	Oxide and nitrates.	T 8.0700000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxide and nitrates.	T 40.400000000000	CI	1955	1955				
Pu-239	Solid.	Oxide and nitrates.	T 81.200000000000	CI	1956	1956				
Pu-239	Solid.	Oxide and nitrates.	T 118.00000000000	CI	1957	1957				
Pu-239	Solid.	Oxide and nitrates.	T 273.00000000000	CI	1958	1958				
Pu-239	Solid.	Oxide and nitrates.	T 300.00000000000	CI	1959	1959				
Pu-239	Solid.	Oxide and nitrates.	T 355.00000000000	CI	1960	1960				
Pu-239	Solid.	Oxide and nitrates.	T 324.00000000000	CI	1961	1961				
Pu-239	Solid.	Oxide and nitrates.	T 422.00000000000	CI	1962	1962				
Pu-239	Solid.	Oxide and nitrates.	T 514.00000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxide and nitrates.	T 440.00000000000	CI	1964	1964				
Pu-239	Solid.	Oxide and nitrates.	T 633.00000000000	CI	1965	1965				
Pu-239	Solid.	Oxide and nitrates.	T 773.00000000000	CI	1966	1966				
Pu-239	Solid.	Oxide and nitrates.	T 297.00000000000	CI	1967	1967				
Pu-239	Solid.	Oxide and nitrates.	T 129.00000000000	CI	1968	1968				
Pu-239	Solid.	Oxide and nitrates.	T 373.00000000000	CI	1969	1969				
Pu-239	Solid.	Oxide and nitrates.	T 475.00000000000	CI	1970	1970				
Pu-240	Solid.	Oxide and nitrates.	T 1.8100000000000	CI	1954	1954				
Pu-240	Solid.	Oxide and nitrates.	T 9.0400000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxide and nitrates.	T 18.200000000000	CI	1956	1956				
Pu-240	Solid.	Oxide and nitrates.	T 26.300000000000	CI	1957	1957				
Pu-240	Solid.	Oxide and nitrates.	T 61.100000000000	CI	1958	1958				
Pu-240	Solid.	Oxide and nitrates.	T 67.100000000000	CI	1959	1959				
Pu-240	Solid.	Oxide and nitrates.	T 79.400000000000	CI	1960	1960				
Pu-240	Solid.	Oxide and nitrates.	T 72.600000000000	CI	1961	1961				
Pu-240	Solid.	Oxide and nitrates.	T 94.600000000000	CI	1962	1962				
Pu-240	Solid.	Oxide and nitrates.	T 115.00000000000	CI	1963	1963				
Pu-240	Solid.	Oxide and nitrates.	T 98.600000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxide and nitrates.	T 142.00000000000	CI	1965	1965				
Pu-240	Solid.	Oxide and nitrates.	T 173.00000000000	CI	1966	1966				
Pu-240	Solid.	Oxide and nitrates.	T 66.500000000000	CI	1967	1967				
Pu-240	Solid.	Oxide and nitrates.	T 28.800000000000	CI	1968	1968				
Pu-240	Solid.	Oxide and nitrates.	T 83.600000000000	CI	1969	1969				
Pu-240	Solid.	Oxide and nitrates.	T 106.00000000000	CI	1970	1970				
Pu-241	Solid.	Oxide and nitrates.	T 48.300000000000	CI	1954	1954				
Pu-241	Solid.	Oxide and nitrates.	T 242.00000000000	CI	1955	1955				
Pu-241	Solid.	Oxide and nitrates.	T 486.00000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxide and nitrates.	T 704.00000000000	CI	1957	1957				
Pu-241	Solid.	Oxide and nitrates.	T 1630.0000000000	CI	1958	1958				
Pu-241	Solid.	Oxide and nitrates.	T 1790.0000000000	CI	1959	1959				
Pu-241	Solid.	Oxide and nitrates.	T 2120.0000000000	CI	1960	1960				
Pu-241	Solid.	Oxide and nitrates.	T 1940.0000000000	CI	1961	1961				
Pu-241	Solid.	Oxide and nitrates.	T 2530.0000000000	CI	1962	1962				
Pu-241	Solid.	Oxide and nitrates.	T 3080.0000000000	CI	1963	1963				
Pu-241	Solid.	Oxide and nitrates.	T 2640.0000000000	CI	1964	1964				
Pu-241	Solid.	Oxide and nitrates.	T 3790.0000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxide and nitrates.	T 4630.0000000000	CI	1966	1966				
Pu-241	Solid.	Oxide and nitrates.	T 1780.0000000000	CI	1967	1967				
Pu-241	Solid.	Oxide and nitrates.	T 770.00000000000	CI	1968	1968				
Pu-241	Solid.	Oxide and nitrates.	T 2240.0000000000	CI	1969	1969				
Pu-241	Solid.	Oxide and nitrates.	T 2840.0000000000	CI	1970	1970				
Pu-242	Solid.	Oxide and nitrates.	T .00010800000000	CI	1954	1954				
Pu-242	Solid.	Oxide and nitrates.	T .00054300000000	CI	1955	1955				
Pu-242	Solid.	Oxide and nitrates.	T .00109000000000	CI	1956	1956				
Pu-242	Solid.	Oxide and nitrates.	T .00158000000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxide and nitrates.	T .00367000000000	CI	1958	1958				
Pu-242	Solid.	Oxide and nitrates.	T .00403000000000	CI	1959	1959				
Pu-242	Solid.	Oxide and nitrates.	T .00477000000000	CI	1960	1960				
Pu-242	Solid.	Oxide and nitrates.	T .00436000000000	CI	1961	1961				
Pu-242	Solid.	Oxide and nitrates.	T .00568000000000	CI	1962	1962				
Pu-242	Solid.	Oxide and nitrates.	T .00690000000000	CI	1963	1963				
Pu-242	Solid.	Oxide and nitrates.	T .00592000000000	CI	1964	1964				
Pu-242	Solid.	Oxide and nitrates.	T .00851000000000	CI	1965	1965				
Pu-242	Solid.	Oxide and nitrates.	T .01040000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxide and nitrates.	T .00400000000000	CI	1967	1967				
Pu-242	Solid.	Oxide and nitrates.	T .00173000000000	CI	1968	1968				
Pu-242	Solid.	Oxide and nitrates.	T .00502000000000	CI	1969	1969				
Pu-242	Solid.	Oxide and nitrates.	T .00639000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS? (Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 220

1. Preparer: Kudera, Don

2. Date prepared: 06/16/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
8H

6. Waste stream:
Glovebox gloves.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 696.4000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. All plutonium areas.
6. This buried waste stream is similar to stored waste content code 463.
9. The average weight per drum is 368 pounds for content code 463, for content code 339 it is 339 pounds. Total drum weight is 241,888 pounds. Waste stream contains 709 55-gallon drums. Content code 339 has 656 drums. Content code 463 has 53 drums.

1. General physical form (see attached list)
Lead.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste consists of leaded glove box gloves and aprons. The waste may contain limited amounts of unleaded gloves, lead bricks and lead sheeting.

3. Chemical form:
Pu oxide on leaded rubber.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
Plastic bottles.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Content code 463, used in 1971-72, was replaced with content code 339 in 1973.

7. Comments (specify number of pertinent question):
4. PB and PL, 2 polyethylene drum bags were used to line the drums or drum liner.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid.		T 220000.00000000	GM	1954	1954			440000.000	
7439-92-1 Lead	Solid.		T 1100000.0000000	GM	1955	1955			2200000.00	
7439-92-1 Lead	Solid.		T 2220000.0000000	GM	1956	1956			4440000.00	
7439-92-1 Lead	Solid.		T 3210000.0000000	GM	1957	1957			6420000.00	
7439-92-1 Lead	Solid.		T 7450000.0000000	GM	1958	1958			14900000.0	
7439-92-1 Lead	Solid.		T 8180000.0000000	GM	1959	1959			16360000.0	
7439-92-1 Lead	Solid.		T 9680000.0000000	GM	1960	1960			19360000.0	
7439-92-1 Lead	Solid.		T 8860000.0000000	GM	1961	1961			17720000.0	
7439-92-1 Lead	Solid.		T 11500000.000000	GM	1962	1962			23000000.0	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
If any moisture was present, absorbent material (trade name Oil-Dry) was added to the drum.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid.		T 14000000.000000	GM	1963	1963			28000000.0	
7439-92-1 Lead	Solid.		T 12000000.000000	GM	1964	1964			24000000.0	
7439-92-1 Lead	Solid.		T 17300000.000000	GM	1965	1965			34600000.0	
7439-92-1 Lead	Solid.		T 21100000.000000	GM	1966	1966			42200000.0	
7439-92-1 Lead	Solid.		T 8120000.0000000	GM	1967	1967			16240000.0	
7439-92-1 Lead	Solid.		T 3510000.0000000	GM	1968	1968			7020000.00	
7439-92-1 Lead	Solid.		T 10200000.000000	GM	1969	1969			20400000.0	
7439-92-1 Lead	Solid.		T 13000000.000000	GM	1970	1970			26000000.0	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

If any moisture was present, absorbent material (trade name Oil-Dry) was added to the drum.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .20000000000000	CI	1954	1954				
Pu-238	Solid.	Oxides.	T .99800000000000	CI	1955	1955				
Pu-238	Solid.	Oxides.	T 2.0100000000000	CI	1956	1956				
Pu-238	Solid.	Oxides.	T 2.9100000000000	CI	1957	1957				
Pu-238	Solid.	Oxides.	T 6.7500000000000	CI	1958	1958				
Pu-238	Solid.	Oxides.	T 7.4100000000000	CI	1959	1959				
Pu-238	Solid.	Oxides.	T 8.7700000000000	CI	1960	1960				
Pu-238	Solid.	Oxides.	T 8.0200000000000	CI	1961	1961				
Pu-238	Solid.	Oxides.	T 10.400000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T 12.700000000000	CI	1963	1963				
Pu-238	Solid.	Oxides.	T 10.900000000000	CI	1964	1964				
Pu-238	Solid.	Oxides.	T 15.600000000000	CI	1965	1965				
Pu-238	Solid.	Oxides.	T 19.100000000000	CI	1966	1966				
Pu-238	Solid.	Oxides.	T 7.3500000000000	CI	1967	1967				
Pu-238	Solid.	Oxides.	T 3.1800000000000	CI	1968	1968				
Pu-238	Solid.	Oxides.	T 9.2300000000000	CI	1969	1969				
Pu-238	Solid.	Oxides.	T 11.800000000000	CI	1970	1970				
Pu-239	Solid.	Oxides.	T 6.8100000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 34.100000000000	CI	1955	1955				
Pu-239	Solid.	Oxides.	T 68.600000000000	CI	1956	1956				
Pu-239	Solid.	Oxides.	T 99.200000000000	CI	1957	1957				
Pu-239	Solid.	Oxides.	T 230.00000000000	CI	1958	1958				
Pu-239	Solid.	Oxides.	T 253.00000000000	CI	1959	1959				
Pu-239	Solid.	Oxides.	T 299.00000000000	CI	1960	1960				
Pu-239	Solid.	Oxides.	T 274.00000000000	CI	1961	1961				
Pu-239	Solid.	Oxides.	T 356.00000000000	CI	1962	1962				
Pu-239	Solid.	Oxides.	T 433.00000000000	CI	1963	1963				

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 372.00000000000	CI	1964	1964				
Pu-239	Solid.	Oxides.	T 534.00000000000	CI	1965	1965				
Pu-239	Solid.	Oxides.	T 652.00000000000	CI	1966	1966				
Pu-239	Solid.	Oxides.	T 251.00000000000	CI	1967	1967				
Pu-239	Solid.	Oxides.	T 108.00000000000	CI	1968	1968				
Pu-239	Solid.	Oxides.	T 315.00000000000	CI	1969	1969				
Pu-239	Solid.	Oxides.	T 401.00000000000	CI	1970	1970				
Pu-240	Solid.	Oxides.	T 1.5200000000000	CI	1954	1954				
Pu-240	Solid.	Oxides.	T 7.6300000000000	CI	1955	1955				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 15.400000000000	CI	1956	1956				
Pu-240	Solid.	Oxides.	T 22.200000000000	CI	1957	1957				
Pu-240	Solid.	Oxides.	T 51.600000000000	CI	1958	1958				
Pu-240	Solid.	Oxides.	T 56.600000000000	CI	1959	1959				
Pu-240	Solid.	Oxides.	T 67.000000000000	CI	1960	1960				
Pu-240	Solid.	Oxides.	T 61.300000000000	CI	1961	1961				
Pu-240	Solid.	Oxides.	T 79.800000000000	CI	1962	1962				
Pu-240	Solid.	Oxides.	T 97.100000000000	CI	1963	1963				
Pu-240	Solid.	Oxides.	T 83.200000000000	CI	1964	1964				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T 120.00000000000	CI	1965	1965				
Pu-240	Solid.	Oxides.	T 146.00000000000	CI	1966	1966				
Pu-240	Solid.	Oxides.	T 56.200000000000	CI	1967	1967				
Pu-240	Solid.	Oxides.	T 24.300000000000	CI	1968	1968				
Pu-240	Solid.	Oxides.	T 70.600000000000	CI	1969	1969				
Pu-240	Solid.	Oxides.	T 89.800000000000	CI	1970	1970				
Pu-241	Solid.	Oxides.	T 40.800000000000	CI	1954	1954				
Pu-241	Solid.	Oxides.	T 204.00000000000	CI	1955	1955				
Pu-241	Solid.	Oxides.	T 410.00000000000	CI	1956	1956				

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* Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 594.00000000000	CI	1957	1957				
Pu-241	Solid.	Oxides.	T 1380.0000000000	CI	1958	1958				
Pu-241	Solid.	Oxides.	T 1510.0000000000	CI	1959	1959				
Pu-241	Solid.	Oxides.	T 1790.0000000000	CI	1960	1960				
Pu-241	Solid.	Oxides.	T 1640.0000000000	CI	1961	1961				
Pu-241	Solid.	Oxides.	T 2130.0000000000	CI	1962	1962				
Pu-241	Solid.	Oxides.	T 2600.0000000000	CI	1963	1963				
Pu-241	Solid.	Oxides.	T 2220.0000000000	CI	1964	1964				
Pu-241	Solid.	Oxides.	T 3200.0000000000	CI	1965	1965				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 3900.0000000000	CI	1966	1966				
Pu-241	Solid.	Oxides.	T 1500.0000000000	CI	1967	1967				
Pu-241	Solid.	Oxides.	T 650.00000000000	CI	1968	1968				
Pu-241	Solid.	Oxides.	T 1890.0000000000	CI	1969	1969				
Pu-241	Solid.	Oxides.	T 2400.0000000000	CI	1970	1970				
Pu-242	Solid.	Oxides.	T .00009160000000	CI	1954	1954				
Pu-242	Solid.	Oxides.	T .00045800000000	CI	1955	1955				
Pu-242	Solid.	Oxides.	T .00092200000000	CI	1956	1956				
Pu-242	Solid.	Oxides.	T .00133000000000	CI	1957	1957				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00310000000000	CI	1958	1958				
Pu-242	Solid.	Oxides.	T .00340000000000	CI	1959	1959				
Pu-242	Solid.	Oxides.	T .00402000000000	CI	1960	1960				
Pu-242	Solid.	Oxides.	T .00368000000000	CI	1961	1961				
Pu-242	Solid.	Oxides.	T .00479000000000	CI	1962	1962				
Pu-242	Solid.	Oxides.	T .00583000000000	CI	1963	1963				
Pu-242	Solid.	Oxides.	T .00500000000000	CI	1964	1964				
Pu-242	Solid.	Oxides.	T .00718000000000	CI	1965	1965				
Pu-242	Solid.	Oxides.	T .00877000000000	CI	1966	1966				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00337000000000	CI	1967	1967				
Pu-242	Solid.	Oxides.	T .00146000000000	CI	1968	1968				
Pu-242	Solid.	Oxides.	T .00424000000000	CI	1969	1969				
Pu-242	Solid.	Oxides.	T .00539000000000	CI	1970	1970				

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information: (check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements Jr.
EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS? (Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 221

1. Preparer: Kudera, Don

2. Date prepared: 06/16/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
9H

6. Waste stream:
Glove boxes, equipment (bottles, drill presses, etc.) pumps, motors, control panels and office equipment.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 49884.6000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Buildings - all plutonium areas (776, 771, etc.).
6. This buried waste stream is similar to stored waste content code 320, 480 and 481.
9. The average weight per drum is 253 pounds and the average weight per box is 2893 pounds. Total drum weight is 525,601 pounds, total weight of the boxes is 9,453,944 pounds. Total weight is 9,979,545 pounds. Content code #480 includes boxes larger and smaller than the standard 4'x4'x7' box. This waste stream contains 2,117 55-gallon drums and 3,116 (variety of sizes) boxes. The box size used to determine cubic foot is 4'x4'x7'.

1. General physical form (see attached list)
Other scrap metals.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste consists of nonline and line-generated metal wastes. The waste may be in the form of glove boxes, glove box windows, furnaces, lathes, drill presses, ducting, part carriers, pumps, motors, control panels, tables, desks, typewriters, etc.

3. Chemical form:
Pu oxide on metal.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. PB, PL and ML. An undetermined number of lead-lined drums and boxes are included in this waste stream.
5. BXW.

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 214.00000000000	GM	1954	1954			214.000000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 1070.0000000000	GM	1955	1955			1070.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 2150.0000000000	GM	1956	1956			2150.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 3110.0000000000	GM	1957	1957			3110.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 7220.0000000000	GM	1958	1958			7220.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 7930.0000000000	GM	1959	1959			7930.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 9380.0000000000	GM	1960	1960			9380.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 8580.0000000000	GM	1961	1961			8580.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 11200.000000000	GM	1962	1962			11200.0000	

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Additional information or explanations (indicate pertinent contaminant)
Lead used for lining in some boxes and drums. Some drums contain 1 to 2 quarts of absorbent (Oil-Dri).

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56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 13600.000000000	GM	1963	1963			13600.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 11600.000000000	GM	1964	1964			11600.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 16800.000000000	GM	1965	1965			16800.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 20400.000000000	GM	1966	1966			20400.0000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 7860.0000000000	GM	1967	1967			7860.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 3400.0000000000	GM	1968	1968			3400.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 9880.0000000000	GM	1969	1969			9880.00000	
56-23-5 Carbon Tetrachloride	Absorbed liquid.		T 12600.000000000	GM	1970	1970			12600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 414.00000000000	GM	1954	1954			414.000000	

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71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 2070.0000000000	GM	1955	1955			2070.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 4160.0000000000	GM	1956	1956			4160.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 6030.0000000000	GM	1957	1957			6030.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 14000.000000000	GM	1958	1958			14000.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 15400.000000000	GM	1959	1959			15400.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 18200.000000000	GM	1960	1960			18200.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 16600.000000000	GM	1961	1961			16600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 21600.000000000	GM	1962	1962			21600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 26300.000000000	GM	1963	1963			26300.0000	

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71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 22600.000000000	GM	1964	1964			22600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 32500.000000000	GM	1965	1965			32500.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 39600.000000000	GM	1966	1966			39600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 15200.000000000	GM	1967	1967			15200.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 6600.0000000000	GM	1968	1968			6600.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 19100.000000000	GM	1969	1969			19100.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.		T 24400.000000000	GM	1970	1970			24400.0000	
7439-92-1 Lead	Absorbed liquid.		T 62500.000000000	GM	1954	1954			125000.000	
7439-92-1 Lead	Absorbed liquid.		T 313000.00000000	GM	1955	1955			626000.000	

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7439-92-1 Lead	Absorbed liquid.		T 629000.00000000	GM	1956	1956			1258000.00	
7439-92-1 Lead	Absorbed liquid.		T 910000.00000000	GM	1957	1957			1820000.00	
7439-92-1 Lead	Absorbed liquid.		T 2110000.0000000	GM	1958	1958			4220000.00	
7439-92-1 Lead	Absorbed liquid.		T 2320000.0000000	GM	1959	1959			4640000.00	
7439-92-1 Lead	Absorbed liquid.		T 2750000.0000000	GM	1960	1960			5500000.00	
7439-92-1 Lead	Absorbed liquid.		T 2510000.0000000	GM	1961	1961			5020000.00	
7439-92-1 Lead	Absorbed liquid.		T 3270000.0000000	GM	1962	1962			6540000.00	
7439-92-1 Lead	Absorbed liquid.		T 3980000.0000000	GM	1963	1963			7960000.00	
7439-92-1 Lead	Absorbed liquid.		T 3410000.0000000	GM	1964	1964			6820000.00	

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7439-92-1 Lead	Absorbed liquid.		T 4900000.0000000	GM	1965	1965			9800000.00	
7439-92-1 Lead	Absorbed liquid.		T 5990000.0000000	GM	1966	1966			11980000.0	
7439-92-1 Lead	Absorbed liquid.		T 2300000.0000000	GM	1967	1967			4600000.00	
7439-92-1 Lead	Absorbed liquid.		T 996000.00000000	GM	1968	1968			1992000.00	
7439-92-1 Lead	Absorbed liquid.		T 2890000.0000000	GM	1969	1969			5780000.00	
7439-92-1 Lead	Absorbed liquid.		T 3680000.0000000	GM	1970	1970			7360000.00	
75-09-2 Methylene Chloride	Absorbed liquid.		T 5170.0000000000	GM	1954	1954			5170.00000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 25900.000000000	GM	1955	1955			25900.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 52000.000000000	GM	1956	1956			52000.0000	

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Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Absorbed liquid.		T 75300.000000000	GM	1957	1957			75300.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 175000.00000000	GM	1958	1958			175000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 192000.00000000	GM	1959	1959			192000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 227000.00000000	GM	1960	1960			227000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 208000.00000000	GM	1961	1961			208000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 271000.00000000	GM	1962	1962			271000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 329000.00000000	GM	1963	1963			329000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 282000.00000000	GM	1964	1964			282000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 406000.00000000	GM	1965	1965			406000.000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Lead used for lining in some boxes and drums. Some drums contain 1 to 2 quarts of absorbent (Oil-Dri).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Absorbed liquid.		T 495000.00000000	GM	1966	1966			495000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 190000.00000000	GM	1967	1967			190000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 82400.000000000	GM	1968	1968			82400.0000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 239000.00000000	GM	1969	1969			239000.000	
75-09-2 Methylene Chloride	Absorbed liquid.		T 304000.00000000	GM	1970	1970			304000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 2070.0000000000	GM	1954	1954			2070.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 10300.000000000	GM	1955	1955			10300.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 20800.000000000	GM	1956	1956			20800.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 30100.000000000	GM	1957	1957			30100.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Lead used for lining in some boxes and drums. Some drums contain 1 to 2 quarts of absorbent (Oil-Dri).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 70000.000000000	GM	1958	1958			70000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 76800.000000000	GM	1959	1959			76800.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 90900.000000000	GM	1960	1960			90900.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 83200.000000000	GM	1961	1961			83200.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 108000.00000000	GM	1962	1962			108000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 132000.00000000	GM	1963	1963			132000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 113000.00000000	GM	1964	1964			113000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 162000.00000000	GM	1965	1965			162000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 198000.00000000	GM	1966	1966			198000.000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Lead used for lining in some boxes and drums. Some drums contain 1 to 2 quarts of absorbent (Oil-Dri).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 76200.000000000	GM	1967	1967			76200.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 33000.000000000	GM	1968	1968			33000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 95700.000000000	GM	1969	1969			95700.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Absorbed liquid.		T 122000.00000000	GM	1970	1970			122000.000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
Lead used for lining in some boxes and drums. Some drums contain 1 to 2 quarts of absorbent (Oil-Dri).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238		Oxides.	T .75100000000000	CI	1954	1954				
Pu-238		Oxides.	T 3.7500000000000	CI	1955	1955				
Pu-238		Oxides.	T 7.5600000000000	CI	1956	1956				
Pu-238		Oxides.	T 10.900000000000	CI	1957	1957				
Pu-238		Oxides.	T 25.400000000000	CI	1958	1958				
Pu-238		Oxides.	T 27.900000000000	CI	1959	1959				
Pu-238		Oxides.	T 33.000000000000	CI	1960	1960				
Pu-238		Oxides.	T 30.200000000000	CI	1961	1961				
Pu-238		Oxides.	T 39.300000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238		Oxides.	T 47.800000000000	CI	1963	1963				
Pu-238		Oxides.	T 41.000000000000	CI	1964	1964				
Pu-238		Oxides.	T 58.900000000000	CI	1965	1965				
Pu-238		Oxides.	T 71.900000000000	CI	1966	1966				
Pu-238		Oxides.	T 27.600000000000	CI	1967	1967				
Pu-238		Oxides.	T 12.000000000000	CI	1968	1968				
Pu-238		Oxides.	T 34.700000000000	CI	1969	1969				
Pu-238		Oxides.	T 44.200000000000	CI	1970	1970				
Pu-239		Oxides.	T 25.600000000000	CI	1954	1954				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239		Oxides.	T 128.00000000000	CI	1955	1955				
Pu-239		Oxides.	T 258.00000000000	CI	1956	1956				
Pu-239		Oxides.	T 373.00000000000	CI	1957	1957				
Pu-239		Oxides.	T 867.00000000000	CI	1958	1958				
Pu-239		Oxides.	T 952.00000000000	CI	1959	1959				
Pu-239		Oxides.	T 1130.0000000000	CI	1960	1960				
Pu-239		Oxides.	T 1030.0000000000	CI	1961	1961				
Pu-239		Oxides.	T 1340.0000000000	CI	1962	1962				
Pu-239		Oxides.	T 1630.0000000000	CI	1963	1963				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	.	Oxides.	T 1400.0000000000	CI	1964	1964				
Pu-239		Oxides.	T 2010.0000000000	CI	1965	1965				
Pu-239		Oxides.	T 2450.0000000000	CI	1966	1966				
Pu-239		Oxides.	T 944.00000000000	CI	1967	1967				
Pu-239		Oxides.	T 408.00000000000	CI	1968	1968				
Pu-239		Oxides.	T 1180.0000000000	CI	1969	1969				
Pu-239		Oxides.	T 1510.0000000000	CI	1970	1970				
Pu-240		Oxides.	T 5.7400000000000	CI	1954	1954				
Pu-240		Oxides.	T 28.700000000000	CI	1955	1955				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240		Oxides.	T 57.800000000000	CI	1956	1956				
Pu-240		Oxides.	T 83.600000000000	CI	1957	1957				
Pu-240		Oxides.	T 194.00000000000	CI	1958	1958				
Pu-240		Oxides.	T 213.00000000000	CI	1959	1959				
Pu-240		Oxides.	T 252.00000000000	CI	1960	1960				
Pu-240		Oxides.	T 231.00000000000	CI	1961	1961				
Pu-240		Oxides.	T 300.00000000000	CI	1962	1962				
Pu-240		Oxides.	T 365.00000000000	CI	1963	1963				
Pu-240		Oxides.	T 313.00000000000	CI	1964	1964				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240		Oxides.	T 450.00000000000	CI	1965	1965				
Pu-240		Oxides.	T 550.00000000000	CI	1966	1966				
Pu-240		Oxides.	T 211.00000000000	CI	1967	1967				
Pu-240		Oxides.	T 91.500000000000	CI	1968	1968				
Pu-240		Oxides.	T 266.00000000000	CI	1969	1969				
Pu-240		Oxides.	T 338.00000000000	CI	1970	1970				
Pu-241		Oxides.	T 153.00000000000	CI	1954	1954				
Pu-241		Oxides.	T 767.00000000000	CI	1955	1955				
Pu-241		Oxides.	T 1540.0000000000	CI	1956	1956				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxides.	T 2240.0000000000	CI	1957	1957				
Pu-241		Oxides.	T 5190.0000000000	CI	1958	1958				
Pu-241		Oxides.	T 5700.0000000000	CI	1959	1959				
Pu-241		Oxides.	T 6740.0000000000	CI	1960	1960				
Pu-241		Oxides.	T 6170.0000000000	CI	1961	1961				
Pu-241		Oxides.	T 8030.0000000000	CI	1962	1962				
Pu-241		Oxides.	T 9770.0000000000	CI	1963	1963				
Pu-241		Oxides.	T 8380.0000000000	CI	1964	1964				
Pu-241		Oxides.	T 12000.000000000	CI	1965	1965				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241		Oxides.	T 14700.000000000	CI	1966	1966				
Pu-241		Oxides.	T 5650.0000000000	CI	1967	1967				
Pu-241		Oxides.	T 2450.0000000000	CI	1968	1968				
Pu-241		Oxides.	T 7100.0000000000	CI	1969	1969				
Pu-241		Oxides.	T 9040.0000000000	CI	1970	1970				
Pu-242		Oxides.	T .00034500000000	CI	1954	1954				
Pu-242		Oxides.	T .00172000000000	CI	1955	1955				
Pu-242		Oxides.	T .00347000000000	CI	1956	1956				
Pu-242		Oxides.	T .00502000000000	CI	1957	1957				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242		Oxides.	T .01160000000000	CI	1958	1958				
Pu-242		Oxides.	T .01280000000000	CI	1959	1959				
Pu-242		Oxides.	T .01510000000000	CI	1960	1960				
Pu-242		Oxides.	T .01380000000000	CI	1961	1961				
Pu-242		Oxides.	T .01800000000000	CI	1962	1962				
Pu-242		Oxides.	T .02190000000000	CI	1963	1963				
Pu-242		Oxides.	T .01880000000000	CI	1964	1964				
Pu-242		Oxides.	T .02700000000000	CI	1965	1965				
Pu-242		Oxides.	T .03300000000000	CI	1966	1966				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242		Oxides.	T .01270000000000	CI	1967	1967				
Pu-242		Oxides.	T .00549000000000	CI	1968	1968				
Pu-242		Oxides.	T .01590000000000	CI	1969	1969				
Pu-242		Oxides.	T .02030000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clement Jr. EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 222

1. Preparer: Kudera, Don

2. Date prepared: 06/15/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
10H

6. Waste stream:
Conduit, pipes, control panels, office equipment and glass.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 12753.7000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. All plutonium areas (776, 771, 777, etc.) .
6. This buried waste stream is similar to stored waste content code 950.
7. This waste was expected to be reclassified to LLW.
9. The average weight per drum is 255 pounds and the average weight per box is 2,667 pounds. The drum total weight is 27,030 pounds and the total weight of the boxes is 890,778 pounds. The combined total is 917,808 pounds. Waste was generated between 1971 and 1974.

PART B - WASTE STREAM CHARACTERISTICS RFO-DOW-10H HDT - 222

1. General physical form (see attached list)
Other scrap metals.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste is believed to be from routine maintenance and renovation projects. Example: electrical conduit, water and steam pipes, control panels, office equipment, and glass.

3. Chemical form:
Pu oxide on metal and glass equipment.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:
Content code 950 has not been used since 1974.

7. Comments (specify number of pertinent question):
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

No record of any hazardous material found.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .00108000000000	CI	1954	1954				
Pu-238	Solid.	Oxides.	T .00542000000000	CI	1955	1955				
Pu-238	Solid.	Oxides.	T .01090000000000	CI	1956	1956				
Pu-238	Solid.	Oxides.	T .01580000000000	CI	1957	1957				
Pu-238	Solid.	Oxides.	T .03660000000000	CI	1958	1958				
Pu-238	Solid.	Oxides.	T .04020000000000	CI	1959	1959				
Pu-238	Solid.	Oxides.	T .04760000000000	CI	1960	1960				
Pu-238	Solid.	Oxides.	T .04360000000000	CI	1961	1961				
Pu-238	Solid.	Oxides.	T .05670000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Oxides.	T .06900000000000	CI	1963	1963				
Pu-238	Solid.	Oxides.	T .05910000000000	CI	1964	1964				
Pu-238	Solid.	Oxides.	T .08500000000000	CI	1965	1965				
Pu-238	Solid.	Oxides.	T .10400000000000	CI	1966	1966				
Pu-238	Solid.	Oxides.	T .03990000000000	CI	1967	1967				
Pu-238	Solid.	Oxides.	T .01730000000000	CI	1968	1968				
Pu-238	Solid.	Oxides.	T .05010000000000	CI	1969	1969				
Pu-238	Solid.	Oxides.	T .06380000000000	CI	1970	1970				
Pu-239	Solid.	Oxides.	T .03700000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T .18500000000000	CI	1955	1955				
Pu-239	Solid.	Oxides.	T .37200000000000	CI	1956	1956				
Pu-239	Solid.	Oxides.	T .53900000000000	CI	1957	1957				
Pu-239	Solid.	Oxides.	T 1.2500000000000	CI	1958	1958				
Pu-239	Solid.	Oxides.	T 1.3700000000000	CI	1959	1959				
Pu-239	Solid.	Oxides.	T 1.6200000000000	CI	1960	1960				
Pu-239	Solid.	Oxides.	T 1.4900000000000	CI	1961	1961				
Pu-239	Solid.	Oxides.	T 1.9400000000000	CI	1962	1962				
Pu-239	Solid.	Oxides.	T 2.3500000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Oxides.	T 2.0200000000000	CI	1964	1964				
Pu-239	Solid.	Oxides.	T 2.9000000000000	CI	1965	1965				
Pu-239	Solid.	Oxides.	T 3.5400000000000	CI	1966	1966				
Pu-239	Solid.	Oxides.	T 1.3600000000000	CI	1967	1967				
Pu-239	Solid.	Oxides.	T .59000000000000	CI	1968	1968				
Pu-239	Solid.	Oxides.	T 1.7100000000000	CI	1969	1969				
Pu-239	Solid.	Oxides.	T 2.1800000000000	CI	1970	1970				
Pu-240	Solid.	Oxides.	T .00828000000000	CI	1954	1954				
Pu-240	Solid.	Oxides.	T .04140000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T .08340000000000	CI	1956	1956				
Pu-240	Solid.	Oxides.	T .12100000000000	CI	1957	1957				
Pu-240	Solid.	Oxides.	T .28000000000000	CI	1958	1958				
Pu-240	Solid.	Oxides.	T .30800000000000	CI	1959	1959				
Pu-240	Solid.	Oxides.	T .36400000000000	CI	1960	1960				
Pu-240	Solid.	Oxides.	T .33300000000000	CI	1961	1961				
Pu-240	Solid.	Oxides.	T .43300000000000	CI	1962	1962				
Pu-240	Solid.	Oxides.	T .52700000000000	CI	1963	1963				
Pu-240	Solid.	Oxides.	T .45200000000000	CI	1964	1964				

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Oxides.	T .65000000000000	CI	1965	1965				
Pu-240	Solid.	Oxides.	T .79300000000000	CI	1966	1966				
Pu-240	Solid.	Oxides.	T .30500000000000	CI	1967	1967				
Pu-240	Solid.	Oxides.	T .13200000000000	CI	1968	1968				
Pu-240	Solid.	Oxides.	T .38300000000000	CI	1969	1969				
Pu-240	Solid.	Oxides.	T .48800000000000	CI	1970	1970				
Pu-241	Solid.	Oxides.	T .22200000000000	CI	1954	1954				
Pu-241	Solid.	Oxides.	T 1.1100000000000	CI	1955	1955				
Pu-241	Solid.	Oxides.	T 2.2300000000000	CI	1956	1956				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 3.2300000000000	CI	1957	1957				
Pu-241	Solid.	Oxides.	T 7.4900000000000	CI	1958	1958				
Pu-241	Solid.	Oxides.	T 8.2200000000000	CI	1959	1959				
Pu-241	Solid.	Oxides.	T 9.7300000000000	CI	1960	1960				
Pu-241	Solid.	Oxides.	T 8.9000000000000	CI	1961	1961				
Pu-241	Solid.	Oxides.	T 11.600000000000	CI	1962	1962				
Pu-241	Solid.	Oxides.	T 14.100000000000	CI	1963	1963				
Pu-241	Solid.	Oxides.	T 12.100000000000	CI	1964	1964				
Pu-241	Solid.	Oxides.	T 17.400000000000	CI	1965	1965				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Oxides.	T 21.200000000000	CI	1966	1966				
Pu-241	Solid.	Oxides.	T 8.1600000000000	CI	1967	1967				
Pu-241	Solid.	Oxides.	T 3.5300000000000	CI	1968	1968				
Pu-241	Solid.	Oxides.	T 10.200000000000	CI	1969	1969				
Pu-241	Solid.	Oxides.	T 13.000000000000	CI	1970	1970				
Pu-242	Solid.	Oxides.	T .00000049700000	CI	1954	1954				
Pu-242	Solid.	Oxides.	T .00000249000000	CI	1955	1955				
Pu-242	Solid.	Oxides.	T .00000501000000	CI	1956	1956				
Pu-242	Solid.	Oxides.	T .00000724000000	CI	1957	1957				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00001680000000	CI	1958	1958				
Pu-242	Solid.	Oxides.	T .00001850000000	CI	1959	1959				
Pu-242	Solid.	Oxides.	T .00002180000000	CI	1960	1960				
Pu-242	Solid.	Oxides.	T .00002000000000	CI	1961	1961				
Pu-242	Solid.	Oxides.	T .00002600000000	CI	1962	1962				
Pu-242	Solid.	Oxides.	T .00003160000000	CI	1963	1963				
Pu-242	Solid.	Oxides.	T .00002710000000	CI	1964	1964				
Pu-242	Solid.	Oxides.	T .00003900000000	CI	1965	1965				
Pu-242	Solid.	Oxides.	T .00004760000000	CI	1966	1966				

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Oxides.	T .00001830000000	CI	1967	1967				
Pu-242	Solid.	Oxides.	T .00000793000000	CI	1968	1968				
Pu-242	Solid.	Oxides.	T .00002300000000	CI	1969	1969				
Pu-242	Solid.	Oxides.	T .00002930000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements, Jr.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 223

1. Preparer: Kudera, Don

2. Date prepared: 06/28/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
11H

6. Waste stream:
Non-metal molds and crucibles.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 1238.8000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building RFO-559 (Plutonium Laboratories).
6. This buried waste stream is similar to stored waste content codes 300, 301 and 370. The average weight per drum is 358 pounds. Total weight of the drums is 12,172 pounds. Waste stream contains 34 55-gallon drums per 10 years.

1. General physical form (see attached list)
Graphite.
[X] other (specify)
Ceramic pieces.

2. Details on physical form(particularly confinement related)
Waste consists of broken graphite molds or ceramic "Leco" crucibles and caps.

3. Chemical form:
Small pieces of Pu metal imbedded in graphite or larger pieces of Pu metal that has been fused with accelerating metal for analysis of the carbon content of the Pu. The small pieces of Pu metal in graphite has probably been oxidized due to long term exposure to air.

4. Inner packaging: [ ] plastic bag [X] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
No hazardous material is identified in this content code.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Fused and accelerating metal.	T .14800000000000	CI	1954	1954				
Pu-238	Solid.	Fused and accelerating metal.	T .74200000000000	CI	1955	1955				
Pu-238	Solid.	Fused and accelerating metal.	T 1.4900000000000	CI	1956	1956				
Pu-238	Solid.	Fused and accelerating metal.	T 2.1600000000000	CI	1957	1957				
Pu-238	Solid.	Fused and accelerating metal.	T 5.0200000000000	CI	1958	1958				
Pu-238	Solid.	Fused and accelerating metal.	T 5.5100000000000	CI	1959	1959				
Pu-238	Solid.	Fused and accelerating metal.	T 6.5200000000000	CI	1960	1960				
Pu-238	Solid.	Fused and accelerating metal.	T 5.9700000000000	CI	1961	1961				
Pu-238	Solid.	Fused and accelerating metal.	T 7.7700000000000	CI	1962	1962				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Fused and accelerating metal.	T 9.4400000000000	CI	1963	1963				
Pu-238	Solid.	Fused and accelerating metal.	T 8.1000000000000	CI	1964	1964				
Pu-238	Solid.	Fused and accelerating metal.	T 11.600000000000	CI	1965	1965				
Pu-238	Solid.	Fused and accelerating metal.	T 14.200000000000	CI	1966	1966				
Pu-238	Solid.	Fused and accelerating metal.	T 5.4600000000000	CI	1967	1967				
Pu-238	Solid.	Fused and accelerating metal.	T 2.3700000000000	CI	1968	1968				
Pu-238	Solid.	Fused and accelerating metal.	T 6.8700000000000	CI	1969	1969				
Pu-238	Solid.	Fused and accelerating metal.	T 8.7400000000000	CI	1970	1970				
Pu-239	Solid.	Fused and accelerating metal.	T 5.0700000000000	CI	1954	1954				

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Additional information or explanations (indicate pertinent contaminant)

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Fused and accelerating metal.	T 25.300000000000	CI	1955	1955				
Pu-239	Solid.	Fused and accelerating metal.	T 51.000000000000	CI	1956	1956				
Pu-239	Solid.	Fused and accelerating metal.	T 73.800000000000	CI	1957	1957				
Pu-239	Solid.	Fused and accelerating metal.	T 171.00000000000	CI	1958	1958				
Pu-239	Solid.	Fused and accelerating metal.	T 188.00000000000	CI	1959	1959				
Pu-239	Solid.	Fused and accelerating metal.	T 223.00000000000	CI	1960	1960				
Pu-239	Solid.	Fused and accelerating metal.	T 204.00000000000	CI	1961	1961				
Pu-239	Solid.	Fused and accelerating metal.	T 265.00000000000	CI	1962	1962				
Pu-239	Solid.	Fused and accelerating metal.	T 322.00000000000	CI	1963	1963				

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Fused and accelerating metal.	T 276.00000000000	CI	1964	1964				
Pu-239	Solid.	Fused and accelerating metal.	T 398.00000000000	CI	1965	1965				
Pu-239	Solid.	Fused and accelerating metal.	T 485.00000000000	CI	1966	1966				
Pu-239	Solid.	Fused and accelerating metal.	T 186.00000000000	CI	1967	1967				
Pu-239	Solid.	Fused and accelerating metal.	T 80.800000000000	CI	1968	1968				
Pu-239	Solid.	Fused and accelerating metal.	T 234.00000000000	CI	1969	1969				
Pu-239	Solid.	Fused and accelerating metal.	T 298.00000000000	CI	1970	1970				
Pu-240	Solid.	Fused and accelerating metal.	T 1.1300000000000	CI	1954	1954				
Pu-240	Solid.	Fused and accelerating metal.	T 5.6700000000000	CI	1955	1955				

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Fused and accelerating metal.	T 11.400000000000	CI	1956	1956				
Pu-240	Solid.	Fused and accelerating metal.	T 16.500000000000	CI	1957	1957				
Pu-240	Solid.	Fused and accelerating metal.	T 38.400000000000	CI	1958	1958				
Pu-240	Solid.	Fused and accelerating metal.	T 42.100000000000	CI	1959	1959				
Pu-240	Solid.	Fused and accelerating metal.	T 49.900000000000	CI	1960	1960				
Pu-240	Solid.	Fused and accelerating metal.	T 45.600000000000	CI	1961	1961				
Pu-240	Solid.	Fused and accelerating metal.	T 59.400000000000	CI	1962	1962				
Pu-240	Solid.	Fused and accelerating metal.	T 72.200000000000	CI	1963	1963				
Pu-240	Solid.	Fused and accelerating metal.	T 61.900000000000	CI	1964	1964				

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Fused and accelerating metal.	T 89.000000000000	CI	1965	1965				
Pu-240	Solid.	Fused and accelerating metal.	T 109.00000000000	CI	1966	1966				
Pu-240	Solid.	Fused and accelerating metal.	T 41.800000000000	CI	1967	1967				
Pu-240	Solid.	Fused and accelerating metal.	T 18.100000000000	CI	1968	1968				
Pu-240	Solid.	Fused and accelerating metal.	T 52.500000000000	CI	1969	1969				
Pu-240	Solid.	Fused and accelerating metal.	T 66.800000000000	CI	1970	1970				
Pu-241	Solid.	Fused and accelerating metal.	T 30.300000000000	CI	1954	1954				
Pu-241	Solid.	Fused and accelerating metal.	T 152.00000000000	CI	1955	1955				
Pu-241	Solid.	Fused and accelerating metal.	T 305.00000000000	CI	1956	1956				

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If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Fused and accelerating metal.	T 442.0000000000	CI	1957	1957				
Pu-241	Solid.	Fused and accelerating metal.	T 1020.0000000000	CI	1958	1958				
Pu-241	Solid.	Fused and accelerating metal.	T 1130.0000000000	CI	1959	1959				
Pu-241	Solid.	Fused and accelerating metal.	T 1330.0000000000	CI	1960	1960				
Pu-241	Solid.	Fused and accelerating metal.	T 1220.0000000000	CI	1961	1961				
Pu-241	Solid.	Fused and accelerating metal.	T 1590.0000000000	CI	1962	1962				
Pu-241	Solid.	Fused and accelerating metal.	T 1930.0000000000	CI	1963	1963				
Pu-241	Solid.	Fused and accelerating metal.	T 1660.0000000000	CI	1964	1964				
Pu-241	Solid.	Fused and accelerating metal.	T 2380.0000000000	CI	1965	1965				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Fused and accelerating metal.	T 2900.0000000000	CI	1966	1966				
Pu-241	Solid.	Fused and accelerating metal.	T 1120.0000000000	CI	1967	1967				
Pu-241	Solid.	Fused and accelerating metal.	T 484.00000000000	CI	1968	1968				
Pu-241	Solid.	Fused and accelerating metal.	T 1400.0000000000	CI	1969	1969				
Pu-241	Solid.	Fused and accelerating metal.	T 1790.0000000000	CI	1970	1970				
Pu-242	Solid.	Fused and accelerating metal.	T .00006810000000	CI	1954	1954				
Pu-242	Solid.	Fused and accelerating metal.	T .00034100000000	CI	1955	1955				
Pu-242	Solid.	Fused and accelerating metal.	T .00068600000000	CI	1956	1956				
Pu-242	Solid.	Fused and accelerating metal.	T .00099200000000	CI	1957	1957				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Fused and accelerating metal.	T .00230000000000	CI	1958	1958				
Pu-242	Solid.	Fused and accelerating metal.	T .00253000000000	CI	1959	1959				
Pu-242	Solid.	Fused and accelerating metal.	T .00299000000000	CI	1960	1960				
Pu-242	Solid.	Fused and accelerating metal.	T .00274000000000	CI	1961	1961				
Pu-242	Solid.	Fused and accelerating metal.	T .00356000000000	CI	1962	1962				
Pu-242	Solid.	Fused and accelerating metal.	T .00434000000000	CI	1963	1963				
Pu-242	Solid.	Fused and accelerating metal.	T .00372000000000	CI	1964	1964				
Pu-242	Solid.	Fused and accelerating metal.	T .00534000000000	CI	1965	1965				
Pu-242	Solid.	Fused and accelerating metal.	T .00652000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Fused and accelerating metal.	T .00251000000000	CI	1967	1967				
Pu-242	Solid.	Fused and accelerating metal.	T .00108000000000	CI	1968	1968				
Pu-242	Solid.	Fused and accelerating metal.	T .00315000000000	CI	1969	1969				
Pu-242	Solid.	Fused and accelerating metal.	T .00401000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-FI-82-021, October 1982 "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", by Thomas L. Clements Jr. EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 224

1. Preparer: Kudera, Don

2. Date prepared: 06/28/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
12H

6. Waste stream:
Dirt, concrete, graphite, ash and soot.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 1970.1000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. RFO - any plutonium area. The average weight per drum is 390 pounds, the average weight per box is 3,226 pounds. Total weight of drums is 427,830 pounds, total weight of boxes is 148,396 pounds. Total waste is 576,226 pounds. Wastem stream contains 1,097 55-gallon drums and 46 4x4x7 ft. boxes.
6. This buried waste stream is similar to stored waste content codes 310, 311, 374, 375, 391, 393, 420, 421, 422 and 425.

1. General physical form (see attached list)
Concrete, brick, and asphalt.
[ ] other (specify)

2. Details on physical form (particularly confinement related)
Waste consists of dirt, sand, pieces of concrete, graphite, crucibles, and incinerator ash and soot.

3. Chemical form:
Mostly Pu and Am oxides. Small amounts of Pu and Am nitrates and metal could be present on the small particles of waste. However, this has probably oxidized due to exposure to air over the years.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Waste packaging and handling will vary depending on the waste-generating area. Waste may be single or double-contained in polyethylene and/or PVC plastic bags, and/or packaged in Fiber-Paks before they are placed in prepared 55-gallon drums. Waste placed in boxes may have been contained in plastic before being placed in prepared boxes (4'x4'x7').
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Solid.		T 3.4200000000000	GM	1954	1954			3.42000000	
56-23-5 Carbon Tetrachloride	Solid.		T 17.100000000000	GM	1955	1955			17.1000000	
56-23-5 Carbon Tetrachloride	Solid.		T 34.400000000000	GM	1956	1956			34.4000000	
56-23-5 Carbon Tetrachloride	Solid.		T 49.800000000000	GM	1957	1957			49.8000000	
56-23-5 Carbon Tetrachloride	Solid.		T 116.00000000000	GM	1958	1958			116.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 127.00000000000	GM	1959	1959			127.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 150.00000000000	GM	1960	1960			150.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 137.00000000000	GM	1961	1961			137.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 179.00000000000	GM	1962	1962			179.000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Solid.		T 218.00000000000	GM	1963	1963			218.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 187.00000000000	GM	1964	1964			187.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 268.00000000000	GM	1965	1965			268.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 327.00000000000	GM	1966	1966			327.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 126.00000000000	GM	1967	1967			126.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 54.500000000000	GM	1968	1968			54.5000000	
56-23-5 Carbon Tetrachloride	Solid.		T 158.00000000000	GM	1969	1969			158.000000	
56-23-5 Carbon Tetrachloride	Solid.		T 201.00000000000	GM	1970	1970			201.000000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 856.00000000000	GM	1954	1954			856.000000	

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 4280.0000000000	GM	1955	1955			4280.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 8610.0000000000	GM	1956	1956			8610.00000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 12500.000000000	GM	1957	1957			12500.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 28900.000000000	GM	1958	1958			28900.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 31800.000000000	GM	1959	1959			31800.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 37600.000000000	GM	1960	1960			37600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 34400.000000000	GM	1961	1961			34400.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 44800.000000000	GM	1962	1962			44800.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 54400.000000000	GM	1963	1963			54400.0000	

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 46700.000000000	GM	1964	1964			46700.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 67100.000000000	GM	1965	1965			67100.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 81900.000000000	GM	1966	1966			81900.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 31500.000000000	GM	1967	1967			31500.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 13600.000000000	GM	1968	1968			13600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 39600.000000000	GM	1969	1969			39600.0000	
71-55-6 1,1,1-Trichloroethane	Absorbed solid.		T 50400.000000000	GM	1970	1970			50400.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 2620.0000000000	GM	1954	1954			2620.00000	
75-09-2 Methylene Chloride	Absorbed solid.		T 13100.000000000	GM	1955	1955			13100.0000	

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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Absorbed solid.		T 26300.000000000	GM	1956	1956			26300.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 38100.000000000	GM	1957	1957			38100.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 88500.000000000	GM	1958	1958			88500.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 97200.000000000	GM	1959	1959			97200.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 115000.00000000	GM	1960	1960			115000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 105000.00000000	GM	1961	1961			105000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 137000.00000000	GM	1962	1962			137000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 167000.00000000	GM	1963	1963			167000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 143000.00000000	GM	1964	1964			143000.000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
75-09-2 Methylene Chloride	Absorbed solid.		T 205000.00000000	GM	1965	1965			205000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 251000.00000000	GM	1966	1966			251000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 96400.000000000	GM	1967	1967			96400.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 41700.000000000	GM	1968	1968			41700.0000	
75-09-2 Methylene Chloride	Absorbed solid.		T 121000.00000000	GM	1969	1969			121000.000	
75-09-2 Methylene Chloride	Absorbed solid.		T 154000.00000000	GM	1970	1970			154000.000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 261.00000000000	GM	1954	1954			261.000000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 1300.0000000000	GM	1955	1955			1300.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 2630.0000000000	GM	1956	1956			2630.00000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 3800.0000000000	GM	1957	1957			3800.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 8830.0000000000	GM	1958	1958			8830.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 9700.0000000000	GM	1959	1959			9700.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 11500.000000000	GM	1960	1960			11500.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 10500.000000000	GM	1961	1961			10500.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 13700.000000000	GM	1962	1962			13700.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 16600.000000000	GM	1963	1963			16600.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 14200.000000000	GM	1964	1964			14200.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 20500.000000000	GM	1965	1965			20500.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 25000.000000000	GM	1966	1966			25000.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 9610.0000000000	GM	1967	1967			9610.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 4160.0000000000	GM	1968	1968			4160.00000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 12100.000000000	GM	1969	1969			12100.0000	
76131 1,1,2-Trichloro-1,2,2-Trifluor	Solid.		T 15400.000000000	GM	1970	1970			15400.0000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241		Metal and oxides.	T 9.3600000000000	CI	1954	1954				
Am-241		Metal and oxides.	T 28.100000000000	CI	1955	1955				
Am-241		Metal and oxides.	T 56.100000000000	CI	1956	1956				
Am-241		Metal and oxides.	T 84.200000000000	CI	1957	1957				
Am-241		Metal and oxides.	T 206.00000000000	CI	1958	1958				
Am-241		Metal and oxides.	T 224.00000000000	CI	1959	1959				
Am-241		Metal and oxides.	T 262.00000000000	CI	1960	1960				
Am-241		Metal and oxides.	T 243.00000000000	CI	1961	1961				
Am-241		Metal and oxides.	T 309.00000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241		Metal and oxides.	T 384.00000000000	CI	1963	1963				
Am-241		Metal and oxides.	T 327.00000000000	CI	1964	1964				
Am-241		Metal and oxides.	T 468.00000000000	CI	1965	1965				
Am-241		Metal and oxides.	T 571.00000000000	CI	1966	1966				
Am-241		Metal and oxides.	T 224.00000000000	CI	1967	1967				
Am-241		Metal and oxides.	T 93.600000000000	CI	1968	1968				
Am-241		Metal and oxides.	T 281.00000000000	CI	1969	1969				
Am-241		Metal and oxides.	T 356.00000000000	CI	1970	1970				
Pu-238	Solid.	Unknown.	T .29900000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Unknown.	T 1.4900000000000	CI	1955	1955				
Pu-238	Solid.	Unknown.	T 3.0100000000000	CI	1956	1956				
Pu-238	Solid.	Unknown.	T 4.3500000000000	CI	1957	1957				
Pu-238	Solid.	Unknown.	T 10.100000000000	CI	1958	1958				
Pu-238	Solid.	Unknown.	T 11.100000000000	CI	1959	1959				
Pu-238	Solid.	Unknown.	T 13.100000000000	CI	1960	1960				
Pu-238	Solid.	Unknown.	T 12.000000000000	CI	1961	1961				
Pu-238	Solid.	Unknown.	T 15.600000000000	CI	1962	1962				
Pu-238	Solid.	Unknown.	T 19.000000000000	CI	1963	1963				

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Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Unknown.	T 16.300000000000	CI	1964	1964				
Pu-238	Solid.	Unknown.	T 23.400000000000	CI	1965	1965				
Pu-238	Solid.	Unknown.	T 28.600000000000	CI	1966	1966				
Pu-238	Solid.	Unknown.	T 11.000000000000	CI	1967	1967				
Pu-238	Solid.	Unknown.	T 4.7600000000000	CI	1968	1968				
Pu-238	Solid.	Unknown.	T 13.800000000000	CI	1969	1969				
Pu-238	Solid.	Unknown.	T 17.600000000000	CI	1970	1970				
Pu-239	Solid.	Unknown.	T 10.200000000000	CI	1954	1954				
Pu-239	Solid.	Unknown.	T 51.000000000000	CI	1955	1955				

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Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Unknown.	T 103.00000000000	CI	1956	1956				
Pu-239	Solid.	Unknown.	T 149.00000000000	CI	1957	1957				
Pu-239	Solid.	Unknown.	T 345.00000000000	CI	1958	1958				
Pu-239	Solid.	Unknown.	T 379.00000000000	CI	1959	1959				
Pu-239	Solid.	Unknown.	T 448.00000000000	CI	1960	1960				
Pu-239	Solid.	Unknown.	T 410.00000000000	CI	1961	1961				
Pu-239	Solid.	Unknown.	T 534.00000000000	CI	1962	1962				
Pu-239	Solid.	Unknown.	T 649.00000000000	CI	1963	1963				
Pu-239	Solid.	Unknown.	T 557.00000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
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For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Unknown.	T 800.00000000000	CI	1965	1965				
Pu-239	Solid.	Unknown.	T 977.00000000000	CI	1966	1966				
Pu-239	Solid.	Unknown.	T 376.00000000000	CI	1967	1967				
Pu-239	Solid.	Unknown.	T 163.00000000000	CI	1968	1968				
Pu-239	Solid.	Unknown.	T 472.00000000000	CI	1969	1969				
Pu-239	Solid.	Unknown.	T 601.00000000000	CI	1970	1970				
Pu-240	Solid.	Unknown.	T 2.2800000000000	CI	1954	1954				
Pu-240	Solid.	Unknown.	T 11.400000000000	CI	1955	1955				
Pu-240	Solid.	Unknown.	T 23.000000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Unknown.	T 33.300000000000	CI	1957	1957				
Pu-240	Solid.	Unknown.	T 77.300000000000	CI	1958	1958				
Pu-240	Solid.	Unknown.	T 84.800000000000	CI	1959	1959				
Pu-240	Solid.	Unknown.	T 100.00000000000	CI	1960	1960				
Pu-240	Solid.	Unknown.	T 91.800000000000	CI	1961	1961				
Pu-240	Solid.	Unknown.	T 120.00000000000	CI	1962	1962				
Pu-240	Solid.	Unknown.	T 145.00000000000	CI	1963	1963				
Pu-240	Solid.	Unknown.	T 125.00000000000	CI	1964	1964				
Pu-240	Solid.	Unknown.	T 179.00000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Unknown.	T 219.00000000000	CI	1966	1966				
Pu-240	Solid.	Unknown.	T 84.100000000000	CI	1967	1967				
Pu-240	Solid.	Unknown.	T 36.400000000000	CI	1968	1968				
Pu-240	Solid.	Unknown.	T 106.00000000000	CI	1969	1969				
Pu-240	Solid.	Unknown.	T 134.00000000000	CI	1970	1970				
Pu-241	Solid.	Unknown.	T 61.100000000000	CI	1954	1954				
Pu-241	Solid.	Unknown.	T 306.00000000000	CI	1955	1955				
Pu-241	Solid.	Unknown.	T 615.00000000000	CI	1956	1956				
Pu-241	Solid.	Unknown.	T 890.00000000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Unknown.	T 2060.0000000000	CI	1958	1958				
Pu-241	Solid.	Unknown.	T 2270.0000000000	CI	1959	1959				
Pu-241	Solid.	Unknown.	T 2680.0000000000	CI	1960	1960				
Pu-241	Solid.	Unknown.	T 2460.0000000000	CI	1961	1961				
Pu-241	Solid.	Unknown.	T 3200.0000000000	CI	1962	1962				
Pu-241	Solid.	Unknown.	T 3890.0000000000	CI	1963	1963				
Pu-241	Solid.	Unknown.	T 3330.0000000000	CI	1964	1964				
Pu-241	Solid.	Unknown.	T 4790.0000000000	CI	1965	1965				
Pu-241	Solid.	Unknown.	T 5850.0000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Unknown.	T 2250.0000000000	CI	1967	1967				
Pu-241	Solid.	Unknown.	T 974.00000000000	CI	1968	1968				
Pu-241	Solid.	Unknown.	T 2820.0000000000	CI	1969	1969				
Pu-241	Solid.	Unknown.	T 3600.0000000000	CI	1970	1970				
Pu-242	Solid.	Unknown.	T .00013700000000	CI	1954	1954				
Pu-242	Solid.	Unknown.	T .00068600000000	CI	1955	1955				
Pu-242	Solid.	Unknown.	T .00138000000000	CI	1956	1956				
Pu-242	Solid.	Unknown.	T .00200000000000	CI	1957	1957				
Pu-242	Solid.	Unknown.	T .00464000000000	CI	1958	1958				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Unknown.	T .00509000000000	CI	1959	1959				
Pu-242	Solid.	Unknown.	T .00603000000000	CI	1960	1960				
Pu-242	Solid.	Unknown.	T .00551000000000	CI	1961	1961				
Pu-242	Solid.	Unknown.	T .00718000000000	CI	1962	1962				
Pu-242	Solid.	Unknown.	T .00873000000000	CI	1963	1963				
Pu-242	Solid.	Unknown.	T .00748000000000	CI	1964	1964				
Pu-242	Solid.	Unknown.	T .01080000000000	CI	1965	1965				
Pu-242	Solid.	Unknown.	T .01310000000000	CI	1966	1966				
Pu-242	Solid.	Unknown.	T .00505000000000	CI	1967	1967				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Unknown.	T .00219000000000	CI	1968	1968				
Pu-242	Solid.	Unknown.	T .00634000000000	CI	1969	1969				
Pu-242	Solid.	Unknown.	T .00808000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-FI-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements Jr.
EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 225

1. Preparer: Kudera, Don

2. Date prepared: 06/23/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
13H

6. Waste stream:
Resins.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 28.5000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building 771.
6. This buried waste stream is similar to stored waste content code 430.
9. The average weight per drum is 398 pounds, total weight of the drums is 11,513 pounds. Waste stream contains 29 55-gallon drums.

1. General physical form (see attached list)
Resin.
[ ] other (specify)

2. Details on physical form (particularly confinement related)
Waste consists of anion and cation exchange resins. Resins are DOWEX series 1-X4 anion and DOWEX 50W-X8 cation resins manufactured by the DOW Chemical Company. Both resins are polystyrene-divinylbenzene copolymers. Resin bead size is 50 to 100 mesh.

3. Chemical form:
Pu bound to ion exchange resin.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [X] other (specify)
Plastic liner.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:
Content Code 430 was used during 1972 only. The disposal procedure was changed and the content code was changed to 432.

7. Comments (specify number of pertinent question):
4. The resin was packaged in either one gallon polyethylene bottles or in a Fibre-Pak (approximately 18 in. high x 6 in. diameter) lined with two polyethylene bags. One PVC or double plastic (PVC/Polyethylene) bag(s) was placed over the Fibre-Pak before being placed in a 55-gallon drum. Ten Fibre-Paks per drum or 15 to 20 bottles per drum.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samp les?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Nitrate.	T .03220000000000	CI	1954	1954				
Pu-238	Solid.	Nitrate.	T .16100000000000	CI	1955	1955				
Pu-238	Solid.	Nitrate.	T .32400000000000	CI	1956	1956				
Pu-238	Solid.	Nitrate.	T .46900000000000	CI	1957	1957				
Pu-238	Solid.	Nitrate.	T 1.0900000000000	CI	1958	1958				
Pu-238	Solid.	Nitrate.	T 1.2000000000000	CI	1959	1959				
Pu-238	Solid.	Nitrate.	T 1.4100000000000	CI	1960	1960				
Pu-238	Solid.	Nitrate.	T 1.2900000000000	CI	1961	1961				
Pu-238	Solid.	Nitrate.	T 1.6800000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Nitrate.	T 2.0500000000000	CI	1963	1963				
Pu-238	Solid.	Nitrate.	T 1.7600000000000	CI	1964	1964				
Pu-238	Solid.	Nitrate.	T 2.5200000000000	CI	1965	1965				
Pu-238	Solid.	Nitrate.	T 3.0800000000000	CI	1966	1966				
Pu-238	Solid.	Nitrate.	T 1.1800000000000	CI	1967	1967				
Pu-238	Solid.	Nitrate.	T .51300000000000	CI	1968	1968				
Pu-238	Solid.	Nitrate.	T 1.4900000000000	CI	1969	1969				
Pu-238	Solid.	Nitrate.	T 1.9000000000000	CI	1970	1970				
Pu-239	Solid.	Nitrate.	T 1.1000000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Nitrate.	T 5.4900000000000	CI	1955	1955				
Pu-239	Solid.	Nitrate.	T 11.000000000000	CI	1956	1956				
Pu-239	Solid.	Nitrate.	T 16.000000000000	CI	1957	1957				
Pu-239	Solid.	Nitrate.	T 37.200000000000	CI	1958	1958				
Pu-239	Solid.	Nitrate.	T 40.800000000000	CI	1959	1959				
Pu-239	Solid.	Nitrate.	T 48.300000000000	CI	1960	1960				
Pu-239	Solid.	Nitrate.	T 44.200000000000	CI	1961	1961				
Pu-239	Solid.	Nitrate.	T 57.500000000000	CI	1962	1962				
Pu-239	Solid.	Nitrate.	T 69.900000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Nitrate.	T 60.000000000000	CI	1964	1964				
Pu-239	Solid.	Nitrate.	T 86.200000000000	CI	1965	1965				
Pu-239	Solid.	Nitrate.	T 105.00000000000	CI	1966	1966				
Pu-239	Solid.	Nitrate.	T 40.400000000000	CI	1967	1967				
Pu-239	Solid.	Nitrate.	T 17.500000000000	CI	1968	1968				
Pu-239	Solid.	Nitrate.	T 50.800000000000	CI	1969	1969				
Pu-239	Solid.	Nitrate.	T 64.700000000000	CI	1970	1970				
Pu-240	Solid.	Nitrate.	T .24600000000000	CI	1954	1954				
Pu-240	Solid.	Nitrate.	T 1.2300000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Nitrate.	T 2.4800000000000	CI	1956	1956				
Pu-240	Solid.	Nitrate.	T 3.5800000000000	CI	1957	1957				
Pu-240	Solid.	Nitrate.	T 8.3200000000000	CI	1958	1958				
Pu-240	Solid.	Nitrate.	T 9.1400000000000	CI	1959	1959				
Pu-240	Solid.	Nitrate.	T 10.800000000000	CI	1960	1960				
Pu-240	Solid.	Nitrate.	T 9.8900000000000	CI	1961	1961				
Pu-240	Solid.	Nitrate.	T 12.900000000000	CI	1962	1962				
Pu-240	Solid.	Nitrate.	T 15.600000000000	CI	1963	1963				
Pu-240	Solid.	Nitrate.	T 13.400000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Nitrate.	T 19.300000000000	CI	1965	1965				
Pu-240	Solid.	Nitrate.	T 23.600000000000	CI	1966	1966				
Pu-240	Solid.	Nitrate.	T 9.0600000000000	CI	1967	1967				
Pu-240	Solid.	Nitrate.	T 3.9200000000000	CI	1968	1968				
Pu-240	Solid.	Nitrate.	T 11.400000000000	CI	1969	1969				
Pu-240	Solid.	Nitrate.	T 14.500000000000	CI	1970	1970				
Pu-241	Solid.	Nitrate.	T 6.5800000000000	CI	1954	1954				
Pu-241	Solid.	Nitrate.	T 32.900000000000	CI	1955	1955				
Pu-241	Solid.	Nitrate.	T 66.200000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Nitrate.	T 95.800000000000	CI	1957	1957				
Pu-241	Solid.	Nitrate.	T 222.00000000000	CI	1958	1958				
Pu-241	Solid.	Nitrate.	T 244.00000000000	CI	1959	1959				
Pu-241	Solid.	Nitrate.	T 289.00000000000	CI	1960	1960				
Pu-241	Solid.	Nitrate.	T 264.00000000000	CI	1961	1961				
Pu-241	Solid.	Nitrate.	T 344.00000000000	CI	1962	1962				
Pu-241	Solid.	Nitrate.	T 419.00000000000	CI	1963	1963				
Pu-241	Solid.	Nitrate.	T 359.00000000000	CI	1964	1964				
Pu-241	Solid.	Nitrate.	T 516.00000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Nitrate.	T 630.00000000000	CI	1966	1966				
Pu-241	Solid.	Nitrate.	T 242.00000000000	CI	1967	1967				
Pu-241	Solid.	Nitrate.	T 105.00000000000	CI	1968	1968				
Pu-241	Solid.	Nitrate.	T 304.00000000000	CI	1969	1969				
Pu-241	Solid.	Nitrate.	T 387.00000000000	CI	1970	1970				
Pu-242	Solid.	Nitrate.	T .00001480000000	CI	1954	1954				
Pu-242	Solid.	Nitrate.	T .00007390000000	CI	1955	1955				
Pu-242	Solid.	Nitrate.	T .00014900000000	CI	1956	1956				
Pu-242	Solid.	Nitrate.	T .00021500000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Nitrate.	T .00050000000000	CI	1958	1958				
Pu-242	Solid.	Nitrate.	T .00054800000000	CI	1959	1959				
Pu-242	Solid.	Nitrate.	T .00064900000000	CI	1960	1960				
Pu-242	Solid.	Nitrate.	T .00059400000000	CI	1961	1961				
Pu-242	Solid.	Nitrate.	T .00077300000000	CI	1962	1962				
Pu-242	Solid.	Nitrate.	T .00094000000000	CI	1963	1963				
Pu-242	Solid.	Nitrate.	T .00080600000000	CI	1964	1964				
Pu-242	Solid.	Nitrate.	T .00116000000000	CI	1965	1965				
Pu-242	Solid.	Nitrate.	T .00141000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Nitrate.	T .00054400000000	CI	1967	1967				
Pu-242	Solid.	Nitrate.	T .00023500000000	CI	1968	1968				
Pu-242	Solid.	Nitrate.	T .00068300000000	CI	1969	1969				
Pu-242	Solid.	Nitrate.	T .00087000000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements Jr.
EDF-RWMC-369.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 226

1. Preparer: Kudera, Don

2. Date prepared: 06/24/93

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
14H

6. Waste stream:
Salts.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1970

9. Waste stream volume:
Amount 23.6000 Units Cubic meters.
Check box: [X] annual or [ ] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building 776 (Pyrochemical Operations).
6. This buried waste stream is similar to stored waste content codes 005, 410, and 411.
9. Average weight per drum is 302 pounds, total weight of all drums is 6,644 pounds.

1. General physical form (see attached list)
Evaporated salts.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Waste consists of chloride and nitrate salts.

3. Chemical form:
Pu and Am metal and oxides with trace amounts of Pu and Am chloride or nitrates.

4. Inner packaging: [ ] plastic bag [X] plastic liner
[ ] metal liner [ ] none [X] other (specify)
See 7 below.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. Waste salt is packaged in #303 produce cans. Each can is contained in double plastic bags and placed in a 8802 Vollrath stainless steel can. Up to 50 cans fit into a drum which has a 90 mil polyethylene rigid drum liner with one or two drum bags.

PART C - NONRADIOLOGICAL CONTAMINANTS - RFO-DOW-14H HDT - 226

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

See part B., number 3. No hazardous materials are identified in this waste stream.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241	Solid.	Metal with some oxides.	T .40100000000000	CI	1954	1954				
Am-241	Solid.	Metal with some oxides.	T 1.2000000000000	CI	1955	1955				
Am-241	Solid.	Metal with some oxides.	T 2.4100000000000	CI	1956	1956				
Am-241	Solid.	Metal with some oxides.	T 3.6100000000000	CI	1957	1957				
Am-241	Solid.	Metal with some oxides.	T 8.8300000000000	CI	1958	1958				
Am-241	Solid.	Metal with some oxides.	T 9.6300000000000	CI	1959	1959				
Am-241	Solid.	Metal with some oxides.	T 11.200000000000	CI	1960	1960				
Am-241	Solid.	Metal with some oxides.	T 10.400000000000	CI	1961	1961				
Am-241	Solid.	Metal with some oxides.	T 13.200000000000	CI	1962	1962				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Am-241	Solid.	Metal with some oxides.	T 16.400000000000	CI	1963	1963				
Am-241	Solid.	Metal with some oxides.	T 14.000000000000	CI	1964	1964				
Am-241	Solid.	Metal with some oxides.	T 20.100000000000	CI	1965	1965				
Am-241	Solid.	Metal with some oxides.	T 24.500000000000	CI	1966	1966				
Am-241	Solid.	Metal with some oxides.	T 9.6300000000000	CI	1967	1967				
Am-241	Solid.	Metal with some oxides.	T 4.0100000000000	CI	1968	1968				
Am-241	Solid.	Metal with some oxides.	T 12.000000000000	CI	1969	1969				
Am-241	Solid.	Metal with some oxides.	T 15.200000000000	CI	1970	1970				
Pu-238	Solid.	Metal with some oxides.	T .00302000000000	CI	1954	1954				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Metal with some oxides.	T .01510000000000	CI	1955	1955				
Pu-238	Solid.	Metal with some oxides.	T .03040000000000	CI	1956	1956				
Pu-238	Solid.	Metal with some oxides.	T .04400000000000	CI	1957	1957				
Pu-238	Solid.	Metal with some oxides.	T .10200000000000	CI	1958	1958				
Pu-238	Solid.	Metal with some oxides.	T .11200000000000	CI	1959	1959				
Pu-238	Solid.	Metal with some oxides.	T .13300000000000	CI	1960	1960				
Pu-238	Solid.	Metal with some oxides.	T .12200000000000	CI	1961	1961				
Pu-238	Solid.	Metal with some oxides.	T .15800000000000	CI	1962	1962				
Pu-238	Solid.	Metal with some oxides.	T .19200000000000	CI	1963	1963				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Metal with some oxides.	T .16500000000000	CI	1964	1964				
Pu-238	Solid.	Metal with some oxides.	T .23700000000000	CI	1965	1965				
Pu-238	Solid.	Metal with some oxides.	T .29000000000000	CI	1966	1966				
Pu-238	Solid.	Metal with some oxides.	T .11100000000000	CI	1967	1967				
Pu-238	Solid.	Metal with some oxides.	T .04820000000000	CI	1968	1968				
Pu-238	Solid.	Metal with some oxides.	T .14000000000000	CI	1969	1969				
Pu-238	Solid.	Metal with some oxides.	T .17800000000000	CI	1970	1970				
Pu-239	Solid.	Metal with some oxides.	T .10300000000000	CI	1954	1954				
Pu-239	Solid.	Metal with some oxides.	T .51600000000000	CI	1955	1955				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Metal with some oxides.	T 1.0400000000000	CI	1956	1956				
Pu-239	Solid.	Metal with some oxides.	T 1.5000000000000	CI	1957	1957				
Pu-239	Solid.	Metal with some oxides.	T 3.4900000000000	CI	1958	1958				
Pu-239	Solid.	Metal with some oxides.	T 3.8300000000000	CI	1959	1959				
Pu-239	Solid.	Metal with some oxides.	T 4.5400000000000	CI	1960	1960				
Pu-239	Solid.	Metal with some oxides.	T 4.1500000000000	CI	1961	1961				
Pu-239	Solid.	Metal with some oxides.	T 5.4000000000000	CI	1962	1962				
Pu-239	Solid.	Metal with some oxides.	T 6.5700000000000	CI	1963	1963				
Pu-239	Solid.	Metal with some oxides.	T 5.6300000000000	CI	1964	1964				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-239	Solid.	Metal with some oxides.	T 8.1000000000000	CI	1965	1965				
Pu-239	Solid.	Metal with some oxides.	T 9.8800000000000	CI	1966	1966				
Pu-239	Solid.	Metal with some oxides.	T 3.8000000000000	CI	1967	1967				
Pu-239	Solid.	Metal with some oxides.	T 1.6400000000000	CI	1968	1968				
Pu-239	Solid.	Metal with some oxides.	T 4.7700000000000	CI	1969	1969				
Pu-239	Solid.	Metal with some oxides.	T 6.0800000000000	CI	1970	1970				
Pu-240	Solid.	Metal with some oxides.	T .02310000000000	CI	1954	1954				
Pu-240	Solid.	Metal with some oxides.	T .11600000000000	CI	1955	1955				
Pu-240	Solid.	Metal with some oxides.	T .23300000000000	CI	1956	1956				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Metal with some oxides.	T .33700000000000	CI	1957	1957				
Pu-240	Solid.	Metal with some oxides.	T .78200000000000	CI	1958	1958				
Pu-240	Solid.	Metal with some oxides.	T .85800000000000	CI	1959	1959				
Pu-240	Solid.	Metal with some oxides.	T 1.0200000000000	CI	1960	1960				
Pu-240	Solid.	Metal with some oxides.	T .92900000000000	CI	1961	1961				
Pu-240	Solid.	Metal with some oxides.	T 1.2100000000000	CI	1962	1962				
Pu-240	Solid.	Metal with some oxides.	T 1.4700000000000	CI	1963	1963				
Pu-240	Solid.	Metal with some oxides.	T 1.2600000000000	CI	1964	1964				
Pu-240	Solid.	Metal with some oxides.	T 1.8100000000000	CI	1965	1965				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-240	Solid.	Metal with some oxides.	T 2.2100000000000	CI	1966	1966				
Pu-240	Solid.	Metal with some oxides.	T .85100000000000	CI	1967	1967				
Pu-240	Solid.	Metal with some oxides.	T .36800000000000	CI	1968	1968				
Pu-240	Solid.	Metal with some oxides.	T 1.0700000000000	CI	1969	1969				
Pu-240	Solid.	Metal with some oxides.	T 1.3600000000000	CI	1970	1970				
Pu-241	Solid.	Metal with some oxides.	T .61800000000000	CI	1954	1954				
Pu-241	Solid.	Metal with some oxides.	T 3.0900000000000	CI	1955	1955				
Pu-241	Solid.	Metal with some oxides.	T 6.2200000000000	CI	1956	1956				
Pu-241	Solid.	Metal with some oxides.	T 9.0000000000000	CI	1957	1957				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Metal with some oxides.	T 20.900000000000	CI	1958	1958				
Pu-241	Solid.	Metal with some oxides.	T 22.900000000000	CI	1959	1959				
Pu-241	Solid.	Metal with some oxides.	T 27.200000000000	CI	1960	1960				
Pu-241	Solid.	Metal with some oxides.	T 24.800000000000	CI	1961	1961				
Pu-241	Solid.	Metal with some oxides.	T 32.300000000000	CI	1962	1962				
Pu-241	Solid.	Metal with some oxides.	T 39.300000000000	CI	1963	1963				
Pu-241	Solid.	Metal with some oxides.	T 33.700000000000	CI	1964	1964				
Pu-241	Solid.	Metal with some oxides.	T 48.500000000000	CI	1965	1965				
Pu-241	Solid.	Metal with some oxides.	T 59.200000000000	CI	1966	1966				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-241	Solid.	Metal with some oxides.	T 22.800000000000	CI	1967	1967				
Pu-241	Solid.	Metal with some oxides.	T 9.8500000000000	CI	1968	1968				
Pu-241	Solid.	Metal with some oxides.	T 28.600000000000	CI	1969	1969				
Pu-241	Solid.	Metal with some oxides.	T 36.400000000000	CI	1970	1970				
Pu-242	Solid.	Metal with some oxides.	T .00000139000000	CI	1954	1954				
Pu-242	Solid.	Metal with some oxides.	T .00000694000000	CI	1955	1955				
Pu-242	Solid.	Metal with some oxides.	T .00001400000000	CI	1956	1956				
Pu-242	Solid.	Metal with some oxides.	T .00002020000000	CI	1957	1957				
Pu-242	Solid.	Metal with some oxides.	T .00004690000000	CI	1958	1958				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Metal with some oxides.	T .00005150000000	CI	1959	1959				
Pu-242	Solid.	Metal with some oxides.	T .00006100000000	CI	1960	1960				
Pu-242	Solid.	Metal with some oxides.	T .00005580000000	CI	1961	1961				
Pu-242	Solid.	Metal with some oxides.	T .00007260000000	CI	1962	1962				
Pu-242	Solid.	Metal with some oxides.	T .00008830000000	CI	1963	1963				
Pu-242	Solid.	Metal with some oxides.	T .00007570000000	CI	1964	1964				
Pu-242	Solid.	Metal with some oxides.	T .00010900000000	CI	1965	1965				
Pu-242	Solid.	Metal with some oxides.	T .00013300000000	CI	1966	1966				
Pu-242	Solid.	Metal with some oxides.	T .00005110000000	CI	1967	1967				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-242	Solid.	Metal with some oxides.	T .00002210000000	CI	1968	1968				
Pu-242	Solid.	Metal with some oxides.	T .00006420000000	CI	1969	1969				
Pu-242	Solid.	Metal with some oxides.	T .00008170000000	CI	1970	1970				

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, October 1982, "Content Code Assessment for INEL Contact-Handled Stored Transuranic Waste", Thomas L. Clements Jr.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:
The stored waste data was extrapolated to estimate the buried waste amounts.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION   HDT - 227

1. Preparer: Kudera, Don

2. Date prepared: 01/10/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
15H

6. Waste stream:
Organic sludge.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1966 Ending year 1970

9. Waste stream volume:
Amount 71156.0000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Building 774.
9. 9,687 55-gallon drums from 1966 through October 1970. 1966 - 1,963 cu ft., 1967 - 40,570 cu ft., 1968 - 17,580 cu ft., 1969 - 3,919 cu ft., and 1970 - 7,124 cu ft.

1. General physical form (see attached list)
Other liquid setups.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Absorbents mixed with organic liquid to form grease/paste-like material.

3. Chemical form:
Pu and Am oxide and very small pieces of Pu and Am metal from machining operations organic sludge.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
56-23-5 Carbon Tetrachloride	Absorbed liquid.	See chemical name.	T 160000000.00000	GM	1966	1970	N		160000000.	
71-55-6 1,1,1-Trichloroethane	Absorbed liquid.	See chemical name.	T 130000000.00000	GM	1966	1970	N		130000000.	
79-01-6 Trichloroethylene	Absorbed liquid.	See chemical name.	T 140000000.00000	GM	1966	1970	N		140000000.	
127-18-4 Tetrachloroethylene	Absorbed liquid.	See chemical name.	T 36000000.000000	GM	1966	1970	N		36000000.0	
None-XOP. Organophosphates	Absorbed liquid.	See chemical name.	Unknown.	GM	1966	1970	N		0.00000000	
4165-60-0 Nitrobenzene	Absorbed liquid.	See chemical name.	Unknown.	GM	1966	1970	N		0.00000000	
1336363 PCB	Absorbed liquid.	See chemical name.	Unknown.	GM	1966	1970	N		0.00000000	
7440-41-7 Beryllium	Solid.	Metal.	Unknown.	GM	1966	1970	N		0.00000000	
None-DEC. Dibutylethylcarbutol	Absorbed liquid.	See chemical name.	Unknown.	GM	1966	1970	N		0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

This data assumes that TRU waste was buried through October of 1970 (Clements letter - Aug. 1980). It also assumes that the carbon tetrachloride numbers are correct since they were obtained from a revision of RFP logbooks. The TCA, TCE, and PCE quantities were calculated as described in the text of the report. These are all volatile organic compounds and therefore the quantities should be assumed to be an upper bound.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Mostly Pu oxide with traces of Pu metal.	T .29008000000000	GM	1966	1970	N			
Pu-239	Solid.	Mostly Pu oxide with traces of Pu metal.	T 2722.8100000000	GM	1966	1970	N			
Pu-240	Solid.	Mostly Pu oxide with traces of Pu metal.	T 166.75000000000	GM	1966	1970	N			
Pu-241	Solid.	Mostly Pu oxide with traces of Pu metal.	T 9.8600000000000	GM	1966	1970	N			
Pu-242	Solid.	Mostly Pu oxide with traces of Pu metal.	T .58000000000000	GM	1966	1970	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
The Clements 1982 report was used to estimate the total quantity of Pu-52. It was estimated at 0.3 grams per drum.

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
WM-F1-82-021, Clements 1982 Chem Risk 1992 tasks 3+4, Arendholz and Knight 1991b; T.L. Clements letter 1980 to J.D. McKinney "Buried Waste Characterization". TCL-47-80, Aug. 25, 1980.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:
Amounts of 1,1,1 trichloroethane (TCA), trichloroethylene (TCE) and tetrachloroethylene (PCE) in this waste stream.

8. Key assumptions used to deal with the unknowns:
Calculated the average amount of "other organics" per drum for this waste. Then assumed that 45% was TCA, 45% TCE, and 10% PCE. These ratios came from the amounts of these organics listed in the 1974 RFP inventory in the Chem Risk 1992 report.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 228

1. Preparer: Kudera, Don

2. Date prepared: 01/21/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
16H

6. Waste stream:
Depleted uranium.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1972

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. Buildings 881 and 883.

1. General physical form (see attached list)

[X] other (specify)
Miscellaneous scrap.

2. Details on physical form(particularly confinement related)
Dry solid, however details on the waste form are unknown. It is expected that they would be mostly combustibles, metals, glass, sludges, etc.

3. Chemical form:
Mostly U oxides. Maybe some metals, but small pieces of metal should have oxidized.

4. Inner packaging: [X] plastic bag [ ] plastic liner [ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.					1954	1972	N		0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-234	Unknown.	Oxide and metal.	T 2430.0000000000	GM	1954	1972	N			
U-235	Unknown.	Oxide and metal.	T 522000.00000000	GM	1954	1972	N			
U-236	Unknown.	Oxide and metal.	T 14600.000000000	GM	1954	1972	N			
U-238	Unknown.	Oxide and metal.	T 242000000.00000	GM	1954	1972	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
The isotopic composition of the depleted uranium is assumed to be described by material type U-12.

1. Type of source of information:
(check box)

[X] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
RWMIS used for 1971 and 1972. Lee to Soule letter used for 1954 to 1970.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other
Hazardous materials are unknown.

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
Hazardous materials are unknown. No details available on the various depleted uranium waste streams.

8. Key assumptions used to deal with the unknowns:
Assume that data on depleted uranium (U-238) in the Lee to Soule letter for 1970 are correct, and that the U-238 data in RWMIS for 1971 and 1972 are correct.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 231

1. Preparer: Kudera, Don

2. Date prepared: 01/11/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
17H

6. Waste stream:
Evaporator salts.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1967 Ending year 1972

9. Waste stream volume:
Amount 81077.0000 Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [X] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):
4. Solar ponds.
7. Drums were marked LLW with "or suspect TRU" handwritten besides LLW.
9. 11,028 drums from 1967 through 1972. Drums disposed in 1971 and 1972 were retrieved from pits 11 and 12 and put on Pad A. This data does not include the waste on Pad A.

1. General physical form (see attached list)
Evaporated salts.
[X] other (specify)
Salts.

2. Details on physical form(particularly confinement related)

3. Chemical form:
Pu and Am nitrates and oxides.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Plastic bag.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7631-99-4 Sodium Nitrate	Solid.	Salt.	T 900000000.00000	GM	1967	1972	N		1800000000	See comment (a) below.
7757-79-1 Potassium Nitrate	Solid.	Salt.	T 450000000.00000	GM	1967	1972	N		900000000.	See comment (a) below.
10101-89-0 Sodium Phosphate	Solid.	Salt.	T 20000000.000000	GM	1967	1972	N		40000000.0	See comment (a) below.
7647-14-5 Sodium Chloride	Solid.	Salt.	T 40000000.000000	GM	1967	1972	N		80000000.0	See comment (a) below.
7757-82-6 Sodium Sulfate	Solid.	Salt.	T 40000000.000000	GM	1967	1972	N		80000000.0	See comment (a) below.
7447-40-7 Potassium Chloride	Solid.	Salt.	T 20000000.000000	GM	1967	1972	N		40000000.0	See comment (a) below.
7778-77-0 Potassium Phosphate	Solid.	Salt.	T 10000000.000000	GM	1967	1972	N		20000000.0	See comment (a) below.
7778-80-5 Potassium Sulfate	Solid.	Salt.	T 20000000.000000	GM	1967	1972	N		40000000.0	See comment (a) below.
10588-01-9 Sodium Dichromate	Solid.	Na2Cr207.	T 1000000.0000000	GM	1967	1972	N		2000000.00	See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
a. This data assumes that the drums contained 300 pounds of salt that contains 30% potassium nitrate, 60% sodium nitrate and 10% miscellaneous compounds. An analysis of one drum of salts on Pad A, that is detailed in the Pad A RI/FS report showed small amounts of chloride sulfate, phosphate, and chromium. Since this data was only three samples from one drum, it was not considered representative of all the drums. Therefore, it is considered that there is no sample analysis. The 10% miscellaneous was assumed to consist of 4% chlorides, 4% sulfates and 2% phosphates.
b. It was assumed that the evaporator salts contain 400 mg of chromium per kilogram of salt as determined in the analysis of one drum from Pad A. Because of a slightly alkaline pH (9-10) and a high nitrate content, it is assumed that the chromium is present as sodium and potassium dichromates (Na2Cr2O7 and K2Cr2O7).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7778-50-9 Potassium Dichromate	Solid.	K2Cr2O7.	T 570000.00000000	GM	1967	1972	N		1140000.00	See comment (b) below.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
a. This data assumes that the drums contained 300 pounds of salt that contains 30% potassium nitrate, 60% sodium nitrate and 10% miscellaneous compounds. An analysis of one drum of salts on Pad A, that is detailed in the Pad A RI/FS report showed small amounts of chloride sulfate, phosphate, and chromium. Since this data was only three samples from one drum, it was not considered representative of all the drums. Therefore, it is considered that there is no sample analysis. The 10% miscellaneous was assumed to consist of 4% chlorides, 4% sulfates and 2% phosphates.
b. It was assumed that the evaporator salts contain 400 mg of chromium per kilogram of salt as determined in the analysis of one drum from Pad A. Because of a slightly alkaline pH (9-10) and a high nitrate content, it is assumed that the chromium is present as sodium and potassium dichromates (Na2Cr2O7 and K2Cr2O7).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Pu-238	Solid.	Nitrates.	T .00080000000000	CI	1967	1972	N			
Pu-239	Solid.	Nitrates.	T 7.0418000000000	CI	1967	1972	N			
Pu-240	Solid.	Nitrates.	T .43130000000000	CI	1967	1972	N			
Pu-241	Solid.	Nitrates.	T .02550000000000	CI	1967	1972	N			
Pu-242	Solid.	Nitrates.	T .00150000000000	CI	1967	1972	N			
Am-241	Solid.	Nitrates.	T 7.5000000000000	CI	1967	1972	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Assumed that the salt contains 5 uCi/g of Pu-52 and 5 uCi/g of Am-241 and that there is 300 lbs. of salt per drum, the Clements 1982 Report estimates - 0.1 g of Pu and 0.1 g of Am per drum. This amount would make the salts be TRU waste, not LLW. Samples from the Pad A RI/FS report calculates 0.3 pCi/g and 0.6 pCi/g for Am-241. The preparer used a total of 10 uCi/g because that was the limit for LLW in 1970.

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EG&G-WM-8727, M.J. Vigil, Jan. 1990. TREE-1286, McKinley and McKinney, Aug. 1978. EGG-WM-9967 "RI/FS for Pad A, Operable Unit 7-12, WAG-7"; Vol. 1, V.E. Halford, et al., July 1993.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:
N/A.

7. Major unknowns in inventories of contaminants:

8. Key assumptions used to deal with the unknowns:

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 234

1. Preparer: Kudera, Don

2. Date prepared: 01/21/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
18H

6. Waste stream:
Enriched uranium.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1954 Ending year 1972

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
4. Buildings 881 and 883.

1. General physical form (see attached list)

[X] other (specify)
Miscellaneous scrap.

2. Details on physical form(particularly confinement related)
Dry solid. However, details on the waste form are unknown. It is expected that it would be mostly combustibles, metals, glass, sludges, etc.

3. Chemical form:
Mostly oxides. Probably some metals, but small pieces of metal should have oxidized.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [ ] other (specify)

5. Waste container type (see attached list)
Metal barrel*.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
5. BXW.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None-DEC. Dibutylethylcarbutol	Liquid.	See chemical name.	Unknown.	GM	1954	1972	N		0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
The ChemRisk 1992 report volumes 3+4 mention that this organic chemical was used for the solvent extraction of enriched uranium. This organic could be a carbitol instead of carbuterol as given in the ChemRisk report.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-234	Unknown.	Oxide and metal.	T 3600.0000000000	GM	1954	1972	N			
U-235	Unknown.	Oxide and metal.	T 359600.00000000	GM	1954	1972	N			
U-236	Unknown.	Oxide and metal.	T 1300.0000000000	GM	1954	1972	N			
U-238	Unknown.	Oxide and metal.	T 21800.000000000	GM	1954	1972	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

Since the enriched uranium was 93% enriched, it is assumed that material type U-38 describes the isotopic composition.

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[X] other
Information received from RFO.

2. Details concerning source (names, report no., dates, etc.)
Appendix C of this report furnishes the information received from RFO. ChemRisk 92 report, Volumes 3 and 4 mentioned the dibutylethylcarbutol.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[X] yes

6. If yes, explain why:
Data obtained from RFO as their latest best estimate of the amount of enriched uranium shipped to the INEL.

7. Major unknowns in inventories of contaminants:
Quantities of dibutylethylcarbutol are unknown. Other hazardous materials in this waste stream are unknown.

8. Key assumptions used to deal with the unknowns:
It is assumed that the latest best estimate from RFO as given in Appendix C is correct.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 233

1. Preparer: Kudera, Don

2. Date prepared: 01/21/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
19H

6. Waste stream:
U-233.

7. Type of radioactive waste (check box):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1967 Ending year 1967

9. Waste stream volume:
Amount ______ Units Unknown.
Check box: [ ] annual or [ ] total over all years
Check box: [ ] container volume or [ ] waste volume

10. Comments (specify number of pertinent question):

1. General physical form (see attached list)
Unknown.
[X] other (specify)
Miscellaneous scrap.

2. Details on physical form(particularly confinement related)
Unknown - only small quantities.

3. Chemical form:
Probably oxides and metal.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Unknown.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
None.									0.00000000	

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
U-233	Unknown.	Oxide metal.	T 56.000000000000	GM	1967	1967	N			
U-232	Unknown.	Oxide metal.	T .00056000000000	GM	1967	1967	N			

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column. If not, mark N and give the minimum value and maximum value.

Additional information or explanations (indicate pertinent contaminant)

It is assumed that the U-233 is material type U-72 and therefore contains 10 ppm U-232.

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
Lee to Soule letter of 1971.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[X] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
No details are available on this waste stream.

8. Key assumptions used to deal with the unknowns:
It is assumed that the data on U-233 in the Lee to Soule letter is correct.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 346

1. Preparer: Kudera, Don

2. Date prepared: 12/02/94

3. Generator: RFO
(area or contractor - use code from attached list)

4. Particular facility: DOW
(building number - use code from attached list)

5. Number of waste stream from this facility:
20H

6. Waste stream:
Radiation sources from various buildings.

7. Type of radioactive waste (check box):
[X] TRU or suspect TRU
[ ] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1965 Ending year 1970

9. Waste stream volume:
Amount ______ Units Cubic feet.
Check box: [ ] annual or [X] total over all years
Check box: [ ] container volume or [X] waste volume

10. Comments (specify number of pertinent question):
9. These radiation sources were placed in other drums of RFP waste that were buried in the SDA. Therefore, there is no added volume from this waste.

1. General physical form (see attached list)
Radiation sources.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
The sources are solids. The Ra/Be neutron sources are present as finely divided powders.

3. Chemical form:
Metal or oxides.

4. Inner packaging: [ ] plastic bag [ ] plastic liner
[ ] metal liner [ ] none [X] other (specify)
Wrapped in lead or in lead container.

5. Waste container type (see attached list)
Metal barrel.

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
4. The sources were packaged with other waste streams. The lead was used for shielding. Neutron sources also usually have a paraffin wrapping for absorption of neutrons. Because these waste streams are always packaged with other waste steams, the type of inner packaging of the metal barrel is not always available.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Contaminant & CAS Registry Number	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
7439-92-1 Lead	Solid.	Metal or oxide.	T .00000290000000	GM	1965	1970	N		0.00000580	Professional judgment.
7440-41-7 Beryllium	Fine powder.	Metal or oxide.	T .12000000000000	GM	1965	1968	N		0.12000000	Professional judgment.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
All radiation sources were wrapped in lead, or in lead containers. The amount of lead for each radiation source is unknown but was estimated (see continuation page).
The amount of Be in a Ra/Be source is unknown. If it is assumed that there is four times as much Be as Ra in the source, then there would be (4 x 0.031g) 0.122g of Be total in the Ra/Be sources.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, if the annual quantity disposed was x kg for 1952-56 and y kg for 1956-84, use two lines to handle this situation.

Radionuclide	Physical Form	Chemical Form	(A)nnual/(T)otal Quantity	Unit	Begin Year	End Year	Samples?	Minimum Value/#Samp	Maximum Value/STD	Basis for Uncertainty
Co-60	Solid.	Metal.	T 174.00000000000	CI	1968	1970	N			Professional judgment.
Cs-137	Solid.	Metal.	T 214.00000000000	CI	1970	1970	N			Professional judgment.
H-3	Solid.	ScH-3.	T .36000000000000	CI	1970	1970	N			Professional judgment.
Ra-226	Fine powder.	Metal.	T .03000000000000	CI	1965	1968	N			Professional judgment.
Ra-226	Solid.	Oxide.	T .16000000000000	CI	1968	1970	N			Professional judgment.

* If sample data are available, mark Y in the column titled "Samples?" and provide number of samples in the next column and standard deviation in the next column.
If not, mark N and give the minimum value and maximum value.
Additional information or explanations (indicate pertinent contaminant)
This Ra-226 is from Ra/Be neutron sources. Ra-226 in Ra/Be sources equal 0.030 Ci Be x 1.02 g Ra-226/Ci Be equal 0.031 g Ra-226 in Ra/Be sources. The Ra-226 sources listed are present as paint coatings on instruments. It is estimated that 31 sources were buried at the SDA; 9 Co-60 sources, 6 Cs-137 sources, 2 H-3 sources, 12 Ra/Be neutron sources, and 2 Ra-226 sources.

1. Type of source of information:
(check box)

[ ] RWMIS [ ] other database
[ ] sample analysis data
[ ] operating records [ ] interview
[ ] expert judgment [X] reports
[ ] other

2. Details concerning source (names, report no., dates, etc.)
EDF-RWMC-761, "Rocky Flats Plant Characterization (1954-1980)", T. L. Clements, Jr., G. Roes Darnel, July 11, 1994.

3. Do the estimates of contaminant quantities in Part C and D represent:
[X] best estimate
[ ] worst case
[ ] other

4. If other than best estimate, explain why:

5. Do the data conflict with RWMIS?
(Historical or Present Data Only)
[ ] no
[ ] yes

6. If yes, explain why:

7. Major unknowns in inventories of contaminants:
The amount of lead used for shielding on each of these sources is unknown.

8. Key assumptions used to deal with the unknowns:
The Ra/Be sources were assumed to contain 1.7E+7 n/sec/Ci according to H. Cember, "Introduction to Health Physics, Table 5.4, page 139, Pergamon Press, Inc. 1976.

Continuation of Part C Column or Question Number or Title Footnote.

The 2.9E+06 grams of lead was determined by assuming that 8" and 4" of lead were needed to shield the Co-60 and Cs-137 sources, respectively. The lead thickness for shielding was derived based on the source term and potential external radiation readings for the source containers. The amount of lead shielding needed for the H-3 and Ra-226 is negligible in comparison, so no value was calculated. This estimate is +/-50% and small when compared to the total lead amount in the SDA.