DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 154

1. Preparer: Amaro, C.

2. Date prepared: 08/27/93

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

4. Particular facility: 642
(building number - use code from attached list)

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

6. Waste stream:
Fission chambers with foils.

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 1975

9. Waste stream volume:
Amount 0.0849 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):
4. Also 647 and 654.

1. General physical form (see attached list)
[X] other (specify)
Fission chambers and foils.

2. Details on physical form(particularly confinement related)
Pu-241 and U-235 fission chambers with foils.

3. Chemical form:
Metals.

4. Inner packaging: [ ] 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. The preparer has talked to various TRA employees (old timers). No one can remember this shipment, therefore, "Other" cannot be identified.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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-241	Solid.	Metallic.	A 1.5450000000000	CI	1969	1969	N	-5%	+5%	See comment below.
U-235	Solid.	Metallic.	A .00000258900000	CI	1975	1975	N	-5%	+5%	See comment below.
U-238	Solid.	Metallic.	A .00000003000000	CI	1975	1975	N	-5%	+5%	See comment below.
U-235	Solid.	Metallic.	A .00000475100000	CI	1977	1977	N	-5%	+5%	See comment below.
U-238	Solid.	Metallic.	A .00000005900000	CI	1977	1977	N	-5%	+5%	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)

Activities of fission chambers are well known, therefore, no sample needs to be counted to determine the activity. The activity is probably very good, so a 5% error was assigned.

PART E - SOURCES OF INFORMATION AND UNCERTAINTIES - TRA-642-1H

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:
None.

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 - 191

1. Preparer: Amaro, C.

2. Date prepared: 09/04/93

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

4. Particular facility: 642
(building number - use code from attached list)

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

6. Waste stream:
Insulation.

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 1975

9. Waste stream volume:
Amount _____ 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. Also 706.

1. General physical form (see attached list)

[X] other (specify)
Insulation.

2. Details on physical form(particularly confinement related)

3. Chemical form:
Unknown.

4. Inner packaging: [ ] plastic bag [X] 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.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .00569300000000	CI	1962	1962	N			See continuation page.
C-14	Insulation.	Unknown.	T .00076370000000	CI	1962	1962	N			See continuation page.
Fe-55	Insulation.	Unknown.	T .13190000000000	CI	1962	1962	N			See continuation page.
Ni-59	Insulation.	Unknown.	T .00003957000000	CI	1962	1962	N			See continuation page.
Ni-63	Insulation.	Unknown.	T .02222000000000	CI	1962	1962	N			See continuation page.
Co-60	Insulation.	Unknown.	T .04652000000000	CI	1962	1962	N			See continuation page.
Sr-90	Insulation.	Unknown.	T .00006387000000	CI	1962	1962	N			See continuation page.
Tc-99	Insulation.	Unknown.	T .00001250000000	CI	1962	1962	N			See continuation page.
I-129	Insulation.	Unknown.	T .00000000325000	CI	1962	1962	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .01389000000000	CI	1962	1962	N			See continuation page.
Ce-144	Insulation.	Unknown.	T .00032630000000	CI	1962	1962	N			See continuation page.
Eu-154	Insulation.	Unknown.	T .00000020130000	CI	1962	1962	N			See continuation page.
Eu-155	Insulation.	Unknown.	T .00065260000000	CI	1962	1962	N			See continuation page.
U-234	Insulation.	Unknown.	T .00000014580000	CI	1962	1962	N			See continuation page.
U-235	Insulation.	Unknown.	T .00000000310000	CI	1962	1962	N			See continuation page.
U-236	Insulation.	Unknown.	T .00000005550000	CI	1962	1962	N			See continuation page.
Np-237	Insulation.	Unknown.	T .00000009030000	CI	1962	1962	N			See continuation page.
Pu-238	Insulation.	Unknown.	T .00000374900000	CI	1962	1962	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .00000374900000	CI	1962	1962	N			See continuation page.
Pu-240	Insulation.	Unknown.	T .00000039570000	CI	1962	1962	N			See continuation page.
Pu-241	Insulation.	Unknown.	T .00040960000000	CI	1962	1962	N			See continuation page.
Am-241	Insulation.	Unknown.	T .00000187500000	CI	1962	1962	N			See continuation page.
Cm-242	Insulation.	Unknown.	T .00000187500000	CI	1962	1962	N			See continuation page.
Cm-244	Insulation.	Unknown.	T .00000173600000	CI	1962	1962	N			See continuation page.
H-3	Insulation.	Unknown.	T .01957000000000	CI	1973	1973	N			See continuation page.
C-14	Insulation.	Unknown.	T .00262600000000	CI	1973	1973	N			See continuation page.
Fe-55	Insulation.	Unknown.	T .45360000000000	CI	1973	1973	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Ni-59	Insulation.	Unknown.	T .00013610000000	CI	1973	1973	N			See continuation page.
Ni-63	Insulation.	Unknown.	T .07639000000000	CI	1973	1973	N			See continuation page.
Co-60	Insulation.	Unknown.	T .15990000000000	CI	1973	1973	N			See continuation page.
Sr-90	Insulation.	Unknown.	T .00021960000000	CI	1973	1973	N			See continuation page.
Tc-99	Insulation.	Unknown.	T .00004297000000	CI	1973	1973	N			See continuation page.
I-129	Insulation.	Unknown.	T .00000001117000	CI	1973	1973	N			See continuation page.
Cs-137	Insulation.	Unknown.	T .04774000000000	CI	1973	1973	N			See continuation page.
Ce-144	Insulation.	Unknown.	T .00112200000000	CI	1973	1973	N			See continuation page.
Eu-154	Insulation.	Unknown.	T .00000069230000	CI	1973	1973	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Eu-155	Insulation.	Unknown.	T .00224400000000	CI	1973	1973	N			See continuation page.
U-234	Insulation.	Unknown.	T .00000050130000	CI	1973	1973	N			See continuation page.
U-235	Insulation.	Unknown.	T .00000001070000	CI	1973	1973	N			See continuation page.
U-236	Insulation.	Unknown.	T .00000019100000	CI	1973	1973	N			See continuation page.
Np-237	Insulation.	Unknown.	T .00000031030000	CI	1973	1973	N			See continuation page.
Pu-238	Insulation.	Unknown.	T .00001289000000	CI	1973	1973	N			See continuation page.
Pu-239	Insulation.	Unknown.	T .00001289000000	CI	1973	1973	N			See continuation page.
Pu-240	Insulation.	Unknown.	T .00000136100000	CI	1973	1973	N			See continuation page.
Pu-241	Insulation.	Unknown.	T .00140800000000	CI	1973	1973	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .00000644500000	CI	1973	1973	N			See continuation page.
Cm-242	Insulation.	Unknown.	T .00000644500000	CI	1973	1973	N			See continuation page.
Cm-244	Insulation.	Unknown.	T .00000596800000	CI	1973	1973	N			See continuation page.
H-3	Insulation.	Unknown.	T .02807000000000	CI	1974	1974	N			See continuation page.
C-14	Insulation.	Unknown.	T .00376500000000	CI	1974	1974	N			See continuation page.
Fe-55	Insulation.	Unknown.	T .65030000000000	CI	1974	1974	N			See continuation page.
Ni-59	Insulation.	Unknown.	T .00019510000000	CI	1974	1974	N			See continuation page.
Ni-63	Insulation.	Unknown.	T .10950000000000	CI	1974	1974	N			See continuation page.
Co-60	Insulation.	Unknown.	T .22930000000000	CI	1974	1974	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .00031490000000	CI	1974	1974	N			See continuation page.
Tc-99	Insulation.	Unknown.	T .00006161000000	CI	1974	1974	N			See continuation page.
I-129	Insulation.	Unknown.	T .00000001602000	CI	1974	1974	N			See continuation page.
Cs-137	Insulation.	Unknown.	T .06845000000000	CI	1974	1974	N			See continuation page.
Ce-144	Insulation.	Unknown.	T .00160900000000	CI	1974	1974	N			See continuation page.
Eu-154	Insulation.	Unknown.	T .00000099260000	CI	1974	1974	N			See continuation page.
Eu-155	Insulation.	Unknown.	T .00321700000000	CI	1974	1974	N			See continuation page.
U-234	Insulation.	Unknown.	T .00000071870000	CI	1974	1974	N			See continuation page.
U-235	Insulation.	Unknown.	T .00000001540000	CI	1974	1974	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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-236	Insulation.	Unknown.	T .00000027380000	CI	1974	1974	N			See continuation page.
Np-237	Insulation.	Unknown.	T .00000044490000	CI	1974	1974	N			See continuation page.
Pu-238	Insulation.	Unknown.	T .00001848000000	CI	1974	1974	N			See continuation page.
Pu-239	Insulation.	Unknown.	T .00001848000000	CI	1974	1974	N			See continuation page.
Pu-240	Insulation.	Unknown.	T .00000195100000	CI	1974	1974	N			See continuation page.
Pu-241	Insulation.	Unknown.	T .00201900000000	CI	1974	1974	N			See continuation page.
Am-241	Insulation.	Unknown.	T .00000924100000	CI	1974	1974	N			See continuation page.
Cm-242	Insulation.	Unknown.	T .00000924100000	CI	1974	1974	N			See continuation page.
Cm-244	Insulation.	Unknown.	T .00000855700000	CI	1974	1974	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Insulation.	Unknown.	T .00099999000000	CI	1975	1975	N	-20%	+20%	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)

The sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

PART E - SOURCES OF INFORMATION AND UNCERTAINTIES - TRA-642-2H

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)
[ ] no
[X] yes

6. If yes, explain why:
A portion of, or all of the measurements, were assumed to be taken using a G-M detector which only measures gamma emitters; beta emitters have been added to the RWMIS activity based on scaling factors. Therefore, the total activity will be greater than that in RWMIS.

7. Major unknowns in inventories of contaminants:
MAP and MFP were unidentified.

8. Key assumptions used to deal with the unknowns:
MAP radionuclides were chosen based on their cross sections and half lines. MFP radionuclides were chosen based on their fissionable products and half lives. On part D, no G-M counter correction is needed to entries for which upper and lower bounds are given. The presence of such bounds indicates that the estimate was based on weight, laboratory analysis, spectrometry, and/or mathematical calculations. The G-M counter correction is needed for entries for which no bounds are given, because such estimates were originally made using the G-M counter method.

Continuation of Part D Column or Question Number or Title Uncertainty basis.

Because of the material type and the years of the shipments, the prepare does not know whether or how a sample was analyzed. The radionuclide content may have been determined using a Geiger-Mueller counter, a NaI or a Germanium detector. The true uncertainty is not known.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 159

1. Preparer: Amaro, C.

2. Date prepared: 08/27/93

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

4. Particular facility: 642
(building number - use code from attached list)

5. Number of waste stream from this facility:
3H

6. Waste stream:
Hydrofluoric Acid (HF) solidified and neutralized as NaF.

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 0.2832 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):

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

2. Details on physical form(particularly confinement related)
Material has been rendered non-hazardous by solidification as defined in 40 CFR268.

3. Chemical form:
NaF.

4. Inner packaging: [ ] 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):
4. Not known.
5. "Other" cannot be defined.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	HF.	T 1.3780000000000	CI	1962	1962	N			See continuation page.
C-14	Solid.	HF.	T .18480000000000	CI	1962	1962	N			See continuation page.
Fe-55	Solid.	HF.	T 31.920000000000	CI	1962	1962	N			See continuation page.
Ni-59	Solid.	HF.	T .00957500000000	CI	1962	1962	N			See continuation page.
Ni-63	Solid.	HF.	T 5.3760000000000	CI	1962	1962	N			See continuation page.
Co-60	Solid.	HF.	T 11.260000000000	CI	1962	1962	N			See continuation page.
Sr-90	Solid.	HF.	T .01545000000000	CI	1962	1962	N			See continuation page.
Tc-99	Solid.	HF.	T .00302400000000	CI	1962	1962	N			See continuation page.
I-129	Solid.	HF.	T .00000078615000	CI	1962	1962	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	HF.	T 3.3600000000000	CI	1962	1962	N			See continuation page.
Ce-144	Solid.	HF.	T .07895000000000	CI	1962	1962	N			See continuation page.
Eu-154	Solid.	HF.	T .00004872000000	CI	1962	1962	N			See continuation page.
Eu-155	Solid.	HF.	T .15790000000000	CI	1962	1962	N			See continuation page.
U-234	Solid.	HF.	T .00003528000000	CI	1962	1962	N			See continuation page.
U-235	Solid.	HF.	T .00000075590000	CI	1962	1962	N			See continuation page.
U-236	Solid.	HF.	T .00001344000000	CI	1962	1962	N			See continuation page.
Np-237	Solid.	HF.	T .00002184000000	CI	1962	1962	N			See continuation page.
Pu-238	Solid.	HF.	T .00090710000000	CI	1962	1962	N			See continuation page.

* 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 sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	HF.	T .00090710000000	CI	1962	1962	N			See continuation page.
Pu-240	Solid.	HF.	T .00009575000000	CI	1962	1962	N			See continuation page.
Pu-241	Solid.	HF.	T .09911000000000	CI	1962	1962	N			See continuation page.
Am-241	Solid.	HF.	T .00045360000000	CI	1962	1962	N			See continuation page.
Cm-242	Solid.	HF.	T .00045360000000	CI	1962	1962	N			See continuation page.
Cm-244	Solid.	HF.	T .00042000000000	CI	1962	1962	N			See continuation page.
U-235	Solid.	HF.	T .00008131900000	CI	1962	1962	N	-20%	+20%	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)

The sample column is marked "N" because the preparer cannot prove a sample was counted by the Radiation Measurements Laboratory (RML) at TRA, but based on the RWMIS radionuclide identification, the preparer believes a sample was counted. A 5-10% error is normal for a sample analyzed by the RML, however, being conservative, the preparer assigned a 20% error (doubling the 10% error).

PART E - SOURCES OF INFORMATION AND UNCERTAINTIES - TRA-642-3H

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)
[ ] no
[X] yes

6. If yes, explain why:
A portion of, or all of the measurements, were assumed to be taken using a G-M detector which only measures gamma emitters; beta emitters have been added to the RWMIS activity based on scaling factors. Therefore, the total activity will be greater than that in RWMIS.

7. Major unknowns in inventories of contaminants:
None.

8. Key assumptions used to deal with the unknowns:
On part D, no G-M counter correction is needed to entries for which upper and lower bounds are given. The presence of such bounds indicates that the estimate was based on weight, laboratory analysis, spectrometry, and/or mathematical calculations. The G-M counter correction is needed for entries for which no bounds are given, because such estimates were originally made using the G-M counter method.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 209

1. Preparer: Nieschmidt, Ernest

2. Date prepared: 09/01/93

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

4. Particular facility: 642
(building number - use code from attached list)

5. Number of waste stream from this facility:
4H

6. Waste stream:
Rags, paper and wipes.

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

8. Actual years disposed of at SDA:
Starting year 1966 Ending year 1982

9. Waste stream volume:
Amount 120.0000 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):
4. Also 603 and 670.

1. General physical form (see attached list)
Combustibles (paper, cloth, wood, etc.).
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Rags, waste paper, and wipes.

3. Chemical form:
Solids.

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):

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	Metal.	A .05772000000000	CI	1966	1966	N			
C-14	Solid.	Metal.	A .00774300000000	CI	1966	1966	N			
Fe-55	Solid.	Metal.	A 1.3370000000000	CI	1966	1966	N			
Ni-59	Solid.	Metal.	A .00040120000000	CI	1966	1966	N			
Ni-63	Solid.	Metal.	A .22520000000000	CI	1966	1966	N			
Co-60	Solid.	Metal.	A .47160000000000	CI	1966	1966	N			
Sr-90	Solid.	Metal.	A .00064760000000	CI	1966	1966	N			
Tc-99	Solid.	Metal.	A .00012670000000	CI	1966	1966	N			
I-129	Solid.	Metal.	A .00000003294000	CI	1966	1966	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	Metal.	A .14080000000000	CI	1966	1966	N			
Ce-144	Solid.	Metal.	A .00330800000000	CI	1966	1966	N			
Eu-154	Solid.	Metal.	A .00000204100000	CI	1966	1966	N			
Eu-155	Solid.	Metal.	A .00661600000000	CI	1966	1966	N			
U-234	Solid.	Metal.	A .00000147800000	CI	1966	1966	N			
U-235	Solid.	Metal.	A .00000003170000	CI	1966	1966	N			
U-236	Solid.	Metal.	A .00000056310000	CI	1966	1966	N			
Np-237	Solid.	Metal.	A .00000091500000	CI	1966	1966	N			
Pu-238	Solid.	Metal.	A .00003801000000	CI	1966	1966	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	A .00003801000000	CI	1966	1966	N			
Pu-240	Solid.	Metal.	A .00000401200000	CI	1966	1966	N			
Pu-241	Solid.	Metal.	A .00415300000000	CI	1966	1966	N			
Am-241	Solid.	Metal.	A .00001900000000	CI	1966	1966	N			
Cm-242	Solid.	Metal.	A .00001900000000	CI	1966	1966	N			
Cm-244	Solid.	Metal.	A .00001760000000	CI	1966	1966	N			
H-3	Solid.	Metal.	A .00052580000000	CI	1971	1971	N			
C-14	Solid.	Metal.	A .00007053000000	CI	1971	1971	N			
Fe-55	Solid.	Metal.	A .01218000000000	CI	1971	1971	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Ni-59	Solid.	Metal.	A .00000365500000	CI	1971	1971	N			
Ni-63	Solid.	Metal.	A .00205200000000	CI	1971	1971	N			
Co-60	Solid.	Metal.	A .00429600000000	CI	1971	1971	N			
Sr-90	Solid.	Metal.	A .00000589900000	CI	1971	1971	N			
Tc-99	Solid.	Metal.	A .00000115400000	CI	1971	1971	N			
I-129	Solid.	Metal.	A .00000000030000	CI	1971	1971	N			
Cs-137	Solid.	Metal.	A .00128200000000	CI	1971	1971	N			
Ce-144	Solid.	Metal.	A .00003014000000	CI	1971	1971	N			
Eu-154	Solid.	Metal.	A .00000001860000	CI	1971	1971	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Eu-155	Solid.	Metal.	A .00006027000000	CI	1971	1971	N			
U-234	Solid.	Metal.	A .00000001350000	CI	1971	1971	N			
U-235	Solid.	Metal.	A .00000000030000	CI	1971	1971	N			
U-236	Solid.	Metal.	A .00000000510000	CI	1971	1971	N			
Np-237	Solid.	Metal.	A .00000000830000	CI	1971	1971	N			
Pu-238	Solid.	Metal.	A .00000034620000	CI	1971	1971	N			
Pu-239	Solid.	Metal.	A .00000034620000	CI	1971	1971	N			
Pu-240	Solid.	Metal.	A .00000003650000	CI	1971	1971	N			
Pu-241	Solid.	Metal.	A .00003783000000	CI	1971	1971	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	A .00000017310000	CI	1971	1971	N			
Cm-242	Solid.	Metal.	A .00000017310000	CI	1971	1971	N			
Cm-244	Solid.	Metal.	A .00000016030000	CI	1971	1971	N			
H-3	Solid.	Metal.	A .00034720000000	CI	1974	1974	N			
C-14	Solid.	Metal.	A .00004657000000	CI	1974	1974	N			
Fe-55	Solid.	Metal.	A .00804400000000	CI	1974	1974	N			
Ni-59	Solid.	Metal.	A .00000241300000	CI	1974	1974	N			
Ni-63	Solid.	Metal.	A .00135500000000	CI	1974	1974	N			
Co-60	Solid.	Metal.	A .00283700000000	CI	1974	1974	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Sr-90	Solid.	Metal.	A .00000389500000	CI	1974	1974	N			
Tc-99	Solid.	Metal.	A .00000076210000	CI	1974	1974	N			
I-129	Solid.	Metal.	A .00000000020000	CI	1974	1974	N			
Cs-137	Solid.	Metal.	A .00084680000000	CI	1974	1974	N			
Ce-144	Solid.	Metal.	A .00001990000000	CI	1974	1974	N			
Eu-154	Solid.	Metal.	A .00000001230000	CI	1974	1974	N			
Eu-155	Solid.	Metal.	A .00003980000000	CI	1974	1974	N			
U-234	Solid.	Metal.	A .00000000890000	CI	1974	1974	N			
U-235	Solid.	Metal.	A .00000000020000	CI	1974	1974	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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-236	Solid.	Metal.	A .00000000340000	CI	1974	1974	N			
Np-237	Solid.	Metal.	A .00000000550000	CI	1974	1974	N			
Pu-238	Solid.	Metal.	A .00000022860000	CI	1974	1974	N			
Pu-239	Solid.	Metal.	A .00000022860000	CI	1974	1974	N			
Pu-240	Solid.	Metal.	A .00000002410000	CI	1974	1974	N			
Pu-241	Solid.	Metal.	A .00002498000000	CI	1974	1974	N			
Am-241	Solid.	Metal.	A .00000011430000	CI	1974	1974	N			
Cm-242	Solid.	Metal.	A .00000011430000	CI	1974	1974	N			
Cm-244	Solid.	Metal.	A .00000010580000	CI	1974	1974	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.
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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
H-3	Solid.	Metal.	A .00434400000000	CI	1975	1975	N			
C-14	Solid.	Metal.	A .00058270000000	CI	1975	1975	N			
Fe-55	Solid.	Metal.	A .10070000000000	CI	1975	1975	N			
Ni-59	Solid.	Metal.	A .00003020000000	CI	1975	1975	N			
Ni-63	Solid.	Metal.	A .01695000000000	CI	1975	1975	N			
Co-60	Solid.	Metal.	A .03549000000000	CI	1975	1975	N			
Sr-90	Solid.	Metal.	A .00004874000000	CI	1975	1975	N			
Tc-99	Solid.	Metal.	A .00000953500000	CI	1975	1975	N			
I-129	Solid.	Metal.	A .00000000248000	CI	1975	1975	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.
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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
Cs-137	Solid.	Metal.	A .01059000000000	CI	1975	1975	N			
Ce-144	Solid.	Metal.	A .00024900000000	CI	1975	1975	N			
Eu-154	Solid.	Metal.	A .00000015360000	CI	1975	1975	N			
Eu-155	Solid.	Metal.	A .00049800000000	CI	1975	1975	N			
U-234	Solid.	Metal.	A .00000011120000	CI	1975	1975	N			
U-235	Solid.	Metal.	A .00000000240000	CI	1975	1975	N			
U-236	Solid.	Metal.	A .00000004240000	CI	1975	1975	N			
Np-237	Solid.	Metal.	A .00000006890000	CI	1975	1975	N			
Pu-238	Solid.	Metal.	A .00000286100000	CI	1975	1975	N			

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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.	Metal.	A .00000286100000	CI	1975	1975	N			
Pu-240	Solid.	Metal.	A .00000030200000	CI	1975	1975	N			
Pu-241	Solid.	Metal.	A .00031260000000	CI	1975	1975	N			
Am-241	Solid.	Metal.	A .00000143000000	CI	1975	1975	N			
Cm-242	Solid.	Metal.	A .00000143000000	CI	1975	1975	N			
Cm-244	Solid.	Metal.	A .00000132400000	CI	1975	1975	N			
H-3	Solid.	Metal.	A .00503900000000	CI	1976	1976	N			
C-14	Solid.	Metal.	A .00067590000000	CI	1976	1976	N			
Fe-55	Solid.	Metal.	A .11680000000000	CI	1976	1976	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Ni-59	Solid.	Metal.	A .00003503000000	CI	1976	1976	N			
Ni-63	Solid.	Metal.	A .01966000000000	CI	1976	1976	N			
Co-60	Solid.	Metal.	A .04117000000000	CI	1976	1976	N			
Sr-90	Solid.	Metal.	A .00005653000000	CI	1976	1976	N			
Tc-99	Solid.	Metal.	A .00001106000000	CI	1976	1976	N			
I-129	Solid.	Metal.	A .00000000288000	CI	1976	1976	N			
Cs-137	Solid.	Metal.	A .01229000000000	CI	1976	1976	N			
Ce-144	Solid.	Metal.	A .00028880000000	CI	1976	1976	N			
Eu-154	Solid.	Metal.	A .00000017820000	CI	1976	1976	N			

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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
Eu-155	Solid.	Metal.	A .00057760000000	CI	1976	1976	N			
U-234	Solid.	Metal.	A .00000012900000	CI	1976	1976	N			
U-235	Solid.	Metal.	A .00000000280000	CI	1976	1976	N			
U-236	Solid.	Metal.	A .00000004920000	CI	1976	1976	N			
Np-237	Solid.	Metal.	A .00000007990000	CI	1976	1976	N			
Pu-238	Solid.	Metal.	A .00000331800000	CI	1976	1976	N			
Pu-239	Solid.	Metal.	A .00000331800000	CI	1976	1976	N			
Pu-240	Solid.	Metal.	A .00000035030000	CI	1976	1976	N			
Pu-241	Solid.	Metal.	A .00036250000000	CI	1976	1976	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	A .00000165900000	CI	1976	1976	N			
Cm-242	Solid.	Metal.	A .00000165900000	CI	1976	1976	N			
Cm-244	Solid.	Metal.	A .00000153600000	CI	1976	1976	N			
H-3	Solid.	Metal.	A .05009000000000	CI	1977	1977	N			
C-14	Solid.	Metal.	A .00671900000000	CI	1977	1977	N			
Fe-55	Solid.	Metal.	A 1.1610000000000	CI	1977	1977	N			
Ni-59	Solid.	Metal.	A .00034820000000	CI	1977	1977	N			
Ni-63	Solid.	Metal.	A .19550000000000	CI	1977	1977	N			
Co-60	Solid.	Metal.	A .40930000000000	CI	1977	1977	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	Metal.	A .00056200000000	CI	1977	1977	N			
Tc-99	Solid.	Metal.	A .00010990000000	CI	1977	1977	N			
I-129	Solid.	Metal.	A .00000002858000	CI	1977	1977	N			
Cs-137	Solid.	Metal.	A .12220000000000	CI	1977	1977	N			
Ce-144	Solid.	Metal.	A .00287100000000	CI	1977	1977	N			
Eu-154	Solid.	Metal.	A .00000177100000	CI	1977	1977	N			
Eu-155	Solid.	Metal.	A .00574200000000	CI	1977	1977	N			
U-234	Solid.	Metal.	A .00000128300000	CI	1977	1977	N			
U-235	Solid.	Metal.	A .00000002750000	CI	1977	1977	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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-236	Solid.	Metal.	A .00000048870000	CI	1977	1977	N			
Np-237	Solid.	Metal.	A .00000079410000	CI	1977	1977	N			
Pu-238	Solid.	Metal.	A .00003298000000	CI	1977	1977	N			
Pu-239	Solid.	Metal.	A .00003298000000	CI	1977	1977	N			
Pu-240	Solid.	Metal.	A .00000348200000	CI	1977	1977	N			
Pu-241	Solid.	Metal.	A .00360400000000	CI	1977	1977	N			
Am-241	Solid.	Metal.	A .00001649000000	CI	1977	1977	N			
Cm-242	Solid.	Metal.	A .00001649000000	CI	1977	1977	N			
Cm-244	Solid.	Metal.	A .00001527000000	CI	1977	1977	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	Metal.	A .01389000000000	CI	1979	1979	N			
C-14	Solid.	Metal.	A .00186400000000	CI	1979	1979	N			
Fe-55	Solid.	Metal.	A .32200000000000	CI	1979	1979	N			
Ni-59	Solid.	Metal.	A .00009659000000	CI	1979	1979	N			
Ni-63	Solid.	Metal.	A .05422000000000	CI	1979	1979	N			
Co-60	Solid.	Metal.	A .11350000000000	CI	1979	1979	N			
Sr-90	Solid.	Metal.	A .00015590000000	CI	1979	1979	N			
Tc-99	Solid.	Metal.	A .00003050000000	CI	1979	1979	N			
I-129	Solid.	Metal.	A .00000000793000	CI	1979	1979	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	Metal.	A .03389000000000	CI	1979	1979	N			
Ce-144	Solid.	Metal.	A .00079640000000	CI	1979	1979	N			
Eu-154	Solid.	Metal.	A .00000049140000	CI	1979	1979	N			
Eu-155	Solid.	Metal.	A .00159300000000	CI	1979	1979	N			
U-234	Solid.	Metal.	A .00000035580000	CI	1979	1979	N			
U-235	Solid.	Metal.	A .00000000760000	CI	1979	1979	N			
U-236	Solid.	Metal.	A .00000013560000	CI	1979	1979	N			
Np-237	Solid.	Metal.	A .00000022030000	CI	1979	1979	N			
Pu-238	Solid.	Metal.	A .00000915000000	CI	1979	1979	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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.	A .00000915000000	CI	1979	1979	N			
Pu-240	Solid.	Metal.	A .00000096590000	CI	1979	1979	N			
Pu-241	Solid.	Metal.	A .00099980000000	CI	1979	1979	N			
Am-241	Solid.	Metal.	A .00000457500000	CI	1979	1979	N			
Cm-242	Solid.	Metal.	A .00000457500000	CI	1979	1979	N			
Cm-244	Solid.	Metal.	A .00000423600000	CI	1979	1979	N			
H-3	Solid.	Metal.	A .01910000000000	CI	1980	1980	N			
C-14	Solid.	Metal.	A .00256300000000	CI	1980	1980	N			
Fe-55	Solid.	Metal.	A .44260000000000	CI	1980	1980	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Ni-59	Solid.	Metal.	A .00013280000000	CI	1980	1980	N			
Ni-63	Solid.	Metal.	A .07455000000000	CI	1980	1980	N			
Co-60	Solid.	Metal.	A .15610000000000	CI	1980	1980	N			
Sr-90	Solid.	Metal.	A .00021430000000	CI	1980	1980	N			
Tc-99	Solid.	Metal.	A .00004194000000	CI	1980	1980	N			
I-129	Solid.	Metal.	A .00000001090000	CI	1980	1980	N			
Cs-137	Solid.	Metal.	A .04659000000000	CI	1980	1980	N			
Ce-144	Solid.	Metal.	A .00109500000000	CI	1980	1980	N			
Eu-154	Solid.	Metal.	A .00000067560000	CI	1980	1980	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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
Eu-155	Solid.	Metal.	A .00219000000000	CI	1980	1980	N			
U-234	Solid.	Metal.	A .00000048920000	CI	1980	1980	N			
U-235	Solid.	Metal.	A .00000001050000	CI	1980	1980	N			
U-236	Solid.	Metal.	A .00000018640000	CI	1980	1980	N			
Np-237	Solid.	Metal.	A .00000030290000	CI	1980	1980	N			
Pu-238	Solid.	Metal.	A .00001258000000	CI	1980	1980	N			
Pu-239	Solid.	Metal.	A .00001258000000	CI	1980	1980	N			
Pu-240	Solid.	Metal.	A .00000132800000	CI	1980	1980	N			
Pu-241	Solid.	Metal.	A .00137500000000	CI	1980	1980	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.
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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	Solid.	Metal.	A .00000629000000	CI	1980	1980	N			
Cm-242	Solid.	Metal.	A .00000629000000	CI	1980	1980	N			
Cm-244	Solid.	Metal.	A .00000582400000	CI	1980	1980	N			
H-3	Solid.	Metal.	A .01075000000000	CI	1981	1981	N			
C-14	Solid.	Metal.	A .00144100000000	CI	1981	1981	N			
Fe-55	Solid.	Metal.	A .24900000000000	CI	1981	1981	N			
Ni-59	Solid.	Metal.	A .00007469000000	CI	1981	1981	N			
Ni-63	Solid.	Metal.	A .04193000000000	CI	1981	1981	N			
Co-60	Solid.	Metal.	A .08780000000000	CI	1981	1981	N			

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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
Sr-90	Solid.	Metal.	A .00012060000000	CI	1981	1981	N			
Tc-99	Solid.	Metal.	A .00002359000000	CI	1981	1981	N			
I-129	Solid.	Metal.	A .00000000613000	CI	1981	1981	N			
Cs-137	Solid.	Metal.	A .02621000000000	CI	1981	1981	N			
Ce-144	Solid.	Metal.	A .00061590000000	CI	1981	1981	N			
Eu-154	Solid.	Metal.	A .00000038000000	CI	1981	1981	N			
Eu-155	Solid.	Metal.	A .00123200000000	CI	1981	1981	N			
U-234	Solid.	Metal.	A .00000027520000	CI	1981	1981	N			
U-235	Solid.	Metal.	A .00000000590000	CI	1981	1981	N			

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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
U-236	Solid.	Metal.	A .00000010480000	CI	1981	1981	N			
Np-237	Solid.	Metal.	A .00000017040000	CI	1981	1981	N			
Pu-238	Solid.	Metal.	A .00000707600000	CI	1981	1981	N			
Pu-239	Solid.	Metal.	A .00000707600000	CI	1981	1981	N			
Pu-240	Solid.	Metal.	A .00000074690000	CI	1981	1981	N			
Pu-241	Solid.	Metal.	A .00077310000000	CI	1981	1981	N			
Am-241	Solid.	Metal.	A .00000353800000	CI	1981	1981	N			
Cm-242	Solid.	Metal.	A .00000353800000	CI	1981	1981	N			
Cm-244	Solid.	Metal.	A .00000327600000	CI	1981	1981	N			

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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
H-3	Solid.	Metal.	A .00905000000000	CI	1982	1982	N			
C-14	Solid.	Metal.	A .00121400000000	CI	1982	1982	N			
Fe-55	Solid.	Metal.	A .20970000000000	CI	1982	1982	N			
Ni-59	Solid.	Metal.	A .00006291000000	CI	1982	1982	N			
Ni-63	Solid.	Metal.	A .03532000000000	CI	1982	1982	N			
Co-60	Solid.	Metal.	A .07395000000000	CI	1982	1982	N			
Sr-90	Solid.	Metal.	A .00010150000000	CI	1982	1982	N			
Tc-99	Solid.	Metal.	A .00001987000000	CI	1982	1982	N			
I-129	Solid.	Metal.	A .00000000517000	CI	1982	1982	N			

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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
Cs-137	Solid.	Metal.	A .02207000000000	CI	1982	1982	N			
Ce-144	Solid.	Metal.	A .00051870000000	CI	1982	1982	N			
Eu-154	Solid.	Metal.	A .00000032010000	CI	1982	1982	N			
Eu-155	Solid.	Metal.	A .00103700000000	CI	1982	1982	N			
U-234	Solid.	Metal.	A .00000023180000	CI	1982	1982	N			
U-235	Solid.	Metal.	A .00000000500000	CI	1982	1982	N			
U-236	Solid.	Metal.	A .00000008830000	CI	1982	1982	N			
Np-237	Solid.	Metal.	A .00000014350000	CI	1982	1982	N			
Pu-238	Solid.	Metal.	A .00000596000000	CI	1982	1982	N			

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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.	Metal.	A .00000596000000	CI	1982	1982	N			
Pu-240	Solid.	Metal.	A .00000062910000	CI	1982	1982	N			
Pu-241	Solid.	Metal.	A .00065120000000	CI	1982	1982	N			
Am-241	Solid.	Metal.	A .00000298000000	CI	1982	1982	N			
Cm-242	Solid.	Metal.	A .00000298000000	CI	1982	1982	N			
Cm-244	Solid.	Metal.	A .00000275900000	CI	1982	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)

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)
[ ] no
[X] yes

6. If yes, explain why:
A portion of, or all of the measurements, were assumed to be taken using a G-M detector which only measures gamma emitters; beta emitters have been added to the RWMIS activity based on scaling factors. Therefore, the total activity will be greater than that in RWMIS.

7. Major unknowns in inventories of contaminants:
Nature of the waste, heterogeneous.

8. Key assumptions used to deal with the unknowns:
Assumption of metals and oxides. On part D, no G-M counter correction is needed to entries for which upper and lower bounds are given. The presence of such bounds indicates that the estimate was based on weight, laboratory analysis, spectrometry, and/or mathematical calculations. The G-M counter correction is needed for entries for which no bounds are given, because such estimates were originally made using the G-M counter method.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 196

1. Preparer: Nieschmidt, Ernest

2. Date prepared: 06/23/93

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

4. Particular facility: 642
(building number - use code from attached list)

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

6. Waste stream:
Irradiated fuel rods.

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 1960

9. Waste stream volume:
Amount 4.5320 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):

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

2. Details on physical form(particularly confinement related)
Fuel rods, unknown enrichment, and unknown fuel content.

3. Chemical form:
U2O3.

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

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

6. Other characteristics of interest:

7. Comments (specify number of pertinent question):
3. Only a guess.
5. Container type 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
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)