DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 146

1. Preparer: Amaro, C.

2. Date prepared: 08/28/93

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

4. Particular facility: 603
(building number - use code from attached list)

5. Number of waste stream from this facility:
6H

6. Waste stream:
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 1961 Ending year 1981

9. Waste stream volume:
Amount 78.4726 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 624, 642, and 670.
6. The waste form is sludge, however, interviewees think this is an erroneous physical identification. Preparer was unable to find correct waste stream identification. Radionuclide identification is correct.

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

2. Details on physical form(particularly confinement related)
Sludge is part water and part dirt.

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):
4. A plastic liner was probably used even though various waste containers were used.
5. BXW, O, and I. "Other" and I 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
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	Sludge.	Ionic.	T .24540000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .03292000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T 5.6860000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00170600000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .95760000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T 2.0050000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00275300000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00053870000000	CI	1961	1961	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000014004000	CI	1961	1961	N	-50%	+50%	See continuation page.

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Additional information or explanations (indicate pertinent contaminant)

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Cs-137	Sludge.	Ionic.	T .59850000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .01407000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000867900000	CI	1961	1961	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .02813000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000628500000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000013470000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000239400000	CI	1961	1961	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000389000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00016160000000	CI	1961	1961	N	-50%	+50%	See continuation page.

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Pu-239	Sludge.	Ionic.	T .00016160000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00001706000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .01766000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00008080000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00008080000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00007482000000	CI	1961	1961	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .00008200000000	CI	1963	1963	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00001100000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00190000000000	CI	1963	1963	N	-50%	+50%	See continuation page.

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Ni-59	Sludge.	Ionic.	T .00000057000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00032000000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00067000000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00000092000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000018000000	CI	1963	1963	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000005000	CI	1963	1963	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .00020000000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000470000000	CI	1963	1963	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000290000	CI	1963	1963	N	-50%	+50%	See continuation page.

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Eu-155	Sludge.	Ionic.	T .00000940000000	CI	1963	1963	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000210000	CI	1963	1963	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000010000	CI	1963	1963	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000000080000	CI	1963	1963	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000130000	CI	1963	1963	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000005400000	CI	1963	1963	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00000005400000	CI	1963	1963	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000000570000	CI	1963	1963	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00000590000000	CI	1963	1963	N	-50%	+50%	See continuation page.

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Am-241	Sludge.	Ionic.	T .00000002700000	CI	1963	1963	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000002700000	CI	1963	1963	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000002500000	CI	1963	1963	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .04085000000000	CI	1964	1964	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00548000000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .94650000000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00028400000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .15940000000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .33380000000000	CI	1964	1964	N	-50%	+50%	See continuation page.

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Sr-90	Sludge.	Ionic.	T .00045830000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00008967000000	CI	1964	1964	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000002331000	CI	1964	1964	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .09963000000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00234100000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000144500000	CI	1964	1964	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00468300000000	CI	1964	1964	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000104600000	CI	1964	1964	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000002240000	CI	1964	1964	N	-50%	+50%	See continuation page.

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U-236	Sludge.	Ionic.	T .00000039850000	CI	1964	1964	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000064760000	CI	1964	1964	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00002690000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00002690000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000284000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00293900000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00001345000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00001345000000	CI	1964	1964	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00001245000000	CI	1964	1964	N	-50%	+50%	See continuation page.

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H-3	Sludge.	Ionic.	T .00016400000000	CI	1967	1967	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00002200000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00380000000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00000114000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00064000000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00134000000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00000184000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000036000000	CI	1967	1967	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000009000	CI	1967	1967	N	-50%	+50%	See continuation page.

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Cs-137	Sludge.	Ionic.	T .00040000000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000940000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000580000	CI	1967	1967	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00001880000000	CI	1967	1967	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000420000	CI	1967	1967	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000010000	CI	1967	1967	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000000160000	CI	1967	1967	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000260000	CI	1967	1967	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000010800000	CI	1967	1967	N	-50%	+50%	See continuation page.

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Pu-239	Sludge.	Ionic.	T .00000010800000	CI	1967	1967	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000001140000	CI	1967	1967	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00001180000000	CI	1967	1967	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00000005400000	CI	1967	1967	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000005400000	CI	1967	1967	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000005000000	CI	1967	1967	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .00233500000000	CI	1970	1970	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00031330000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .05411000000000	CI	1970	1970	N	-50%	+50%	See continuation page.

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Ni-59	Sludge.	Ionic.	T .00001623000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00911400000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .01908000000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00002620000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000512700000	CI	1970	1970	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000133000	CI	1970	1970	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .00569600000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00013390000000	CI	1970	1970	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000008260000	CI	1970	1970	N	-50%	+50%	See continuation page.

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Eu-155	Sludge.	Ionic.	T .00026770000000	CI	1970	1970	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000005980000	CI	1970	1970	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000130000	CI	1970	1970	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000002280000	CI	1970	1970	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000003700000	CI	1970	1970	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000153800000	CI	1970	1970	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00000153800000	CI	1970	1970	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000016230000	CI	1970	1970	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00016800000000	CI	1970	1970	N	-50%	+50%	See continuation page.

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Am-241	Sludge.	Ionic.	T .00000076900000	CI	1970	1970	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000076900000	CI	1970	1970	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000071200000	CI	1970	1970	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .00098400000000	CI	1973	1973	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00013200000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .02280000000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00000684000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00384000000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00804000000000	CI	1973	1973	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00001104000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000216000000	CI	1973	1973	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000056000	CI	1973	1973	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .00240000000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00005640000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000003480000	CI	1973	1973	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00011280000000	CI	1973	1973	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000002520000	CI	1973	1973	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000050000	CI	1973	1973	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00000000960000	CI	1973	1973	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000001560000	CI	1973	1973	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000064800000	CI	1973	1973	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00000064800000	CI	1973	1973	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000006840000	CI	1973	1973	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00007080000000	CI	1973	1973	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00000032400000	CI	1973	1973	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000032400000	CI	1973	1973	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000030000000	CI	1973	1973	N	-50%	+50%	See continuation page.

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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
H-3	Sludge.	Ionic.	T .00012300000000	CI	1974	1974	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00001650000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00285000000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00000085500000	CI	1974	1974	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00048000000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00100500000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00000138000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000027000000	CI	1974	1974	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000007000	CI	1974	1974	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00030000000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000705000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000430000	CI	1974	1974	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00001410000000	CI	1974	1974	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000310000	CI	1974	1974	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000010000	CI	1974	1974	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000000120000	CI	1974	1974	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000190000	CI	1974	1974	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000008100000	CI	1974	1974	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00000008100000	CI	1974	1974	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000000850000	CI	1974	1974	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00000885000000	CI	1974	1974	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00000004050000	CI	1974	1974	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000004050000	CI	1974	1974	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000003750000	CI	1974	1974	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .00002460000000	CI	1975	1975	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00000330000000	CI	1975	1975	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00057000000000	CI	1975	1975	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00000017100000	CI	1975	1975	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00009600000000	CI	1975	1975	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00020100000000	CI	1975	1975	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00000027600000	CI	1975	1975	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000005400000	CI	1975	1975	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000001000	CI	1975	1975	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .00006000000000	CI	1975	1975	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000141000000	CI	1975	1975	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000090000	CI	1975	1975	N	-50%	+50%	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Sludge.	Ionic.	T .00000282000000	CI	1975	1975	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000060000	CI	1975	1975	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000010000	CI	1975	1975	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000000020000	CI	1975	1975	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000040000	CI	1975	1975	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000001620000	CI	1975	1975	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00000001620000	CI	1975	1975	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000000170000	CI	1975	1975	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00000177000000	CI	1975	1975	N	-50%	+50%	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)

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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	Sludge.	Ionic.	T .00000000810000	CI	1975	1975	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000000810000	CI	1975	1975	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000000750000	CI	1975	1975	N	-50%	+50%	See continuation page.
H-3	Sludge.	Ionic.	T .00011070000000	CI	1976	1976	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00001485000000	CI	1976	1976	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00256500000000	CI	1976	1976	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00000076950000	CI	1976	1976	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00043200000000	CI	1976	1976	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00090450000000	CI	1976	1976	N	-50%	+50%	See continuation page.

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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
Sr-90	Sludge.	Ionic.	T .00000124200000	CI	1976	1976	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000024300000	CI	1976	1976	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000006000	CI	1976	1976	N	-50%	+50%	See continuation page.
Cs-137	Sludge.	Ionic.	T .00027000000000	CI	1976	1976	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000634500000	CI	1976	1976	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000390000	CI	1976	1976	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00001269000000	CI	1976	1976	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000280000	CI	1976	1976	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .40150000000000	CI	1976	1976	N	-50%	+50%	See continuation page.

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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	Sludge.	Ionic.	T .00000000110000	CI	1976	1976	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000180000	CI	1976	1976	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000007290000	CI	1976	1976	N	-50%	+50%	See continuation page.
Pu-239	Sludge.	Ionic.	T .00000007290000	CI	1976	1976	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000000770000	CI	1976	1976	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00000796500000	CI	1976	1976	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00000003640000	CI	1976	1976	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000003640000	CI	1976	1976	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000003370000	CI	1976	1976	N	-50%	+50%	See continuation page.

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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
H-3	Sludge.	Ionic.	T .00006888000000	CI	1981	1981	N	-50%	+50%	See continuation page.
C-14	Sludge.	Ionic.	T .00000924000000	CI	1981	1981	N	-50%	+50%	See continuation page.
Fe-55	Sludge.	Ionic.	T .00159600000000	CI	1981	1981	N	-50%	+50%	See continuation page.
Ni-59	Sludge.	Ionic.	T .00000047880000	CI	1981	1981	N	-50%	+50%	See continuation page.
Ni-63	Sludge.	Ionic.	T .00026880000000	CI	1981	1981	N	-50%	+50%	See continuation page.
Co-60	Sludge.	Ionic.	T .00056280000000	CI	1981	1981	N	-50%	+50%	See continuation page.
Sr-90	Sludge.	Ionic.	T .00000077280000	CI	1981	1981	N	-50%	+50%	See continuation page.
Tc-99	Sludge.	Ionic.	T .00000015120000	CI	1981	1981	N	-50%	+50%	See continuation page.
I-129	Sludge.	Ionic.	T .00000000004000	CI	1981	1981	N	-50%	+50%	See continuation page.

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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	Sludge.	Ionic.	T .00016800000000	CI	1981	1981	N	-50%	+50%	See continuation page.
Ce-144	Sludge.	Ionic.	T .00000394800000	CI	1981	1981	N	-50%	+50%	See continuation page.
Eu-154	Sludge.	Ionic.	T .00000000240000	CI	1981	1981	N	-50%	+50%	See continuation page.
Eu-155	Sludge.	Ionic.	T .00000789600000	CI	1981	1981	N	-50%	+50%	See continuation page.
U-234	Sludge.	Ionic.	T .00000000180000	CI	1981	1981	N	-50%	+50%	See continuation page.
U-235	Sludge.	Ionic.	T .00000000010000	CI	1981	1981	N	-50%	+50%	See continuation page.
U-236	Sludge.	Ionic.	T .00000000070000	CI	1981	1981	N	-50%	+50%	See continuation page.
Np-237	Sludge.	Ionic.	T .00000000110000	CI	1981	1981	N	-50%	+50%	See continuation page.
Pu-238	Sludge.	Ionic.	T .00000004540000	CI	1981	1981	N	-50%	+50%	See continuation page.

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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	Sludge.	Ionic.	T .00000004540000	CI	1981	1981	N	-50%	+50%	See continuation page.
Pu-240	Sludge.	Ionic.	T .00000000480000	CI	1981	1981	N	-50%	+50%	See continuation page.
Pu-241	Sludge.	Ionic.	T .00000495600000	CI	1981	1981	N	-50%	+50%	See continuation page.
Am-241	Sludge.	Ionic.	T .00000002270000	CI	1981	1981	N	-50%	+50%	See continuation page.
Cm-242	Sludge.	Ionic.	T .00000002270000	CI	1981	1981	N	-50%	+50%	See continuation page.
Cm-244	Sludge.	Ionic.	T .00000002100000	CI	1981	1981	N	-50%	+50%	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)

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

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

2. Details concerning source (names, report no., dates, etc.)
Interviewees wish to remain anonymous.

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:
Radionuclides were lumped into MAP and MFP.

8. Key assumptions used to deal with the unknowns:
MAP radionuclides were chosen based on their cross sections and half lives. MFP radionuclides were chosen based on the fission products and their half lives.

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

Although the preparer cannot prove a sample was given to the Radiation Measurements Lab (RML) located at TRA, the preparer is fairly confident that samples were given to them to count. A sodium iodide (NaI) detector was probably used to analyze these samples. NaI detectors have wide peaks and although the total activity is accurate, individual radionuclide activities may be off, therefore a 50% error was assigned.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 153

1. Preparer: Amaro, C.

2. Date prepared: 08/25/93

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

4. Particular facility: 603
(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):
[ ] TRU or suspect TRU
[X] LLW
[ ] non-radioactive

8. Actual years disposed of at SDA:
Starting year 1960 Ending year 1968

9. Waste stream volume:
Amount 3.3400 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)
Glass.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
This stream is entirely glass bottles, pieces, etc.

3. Chemical form:
SiO2.

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. "Other", which cannot be identified by the preparer.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .04423000000000	CI	1960	1960	N			See continuation page.
C-14	Glass.	SiO2.	T .00593400000000	CI	1960	1960	N			See continuation page.
Fe-55	Glass.	SiO2.	T 1.0250000000000	CI	1960	1960	N			See continuation page.
Ni-59	Glass.	SiO2.	T .00030750000000	CI	1960	1960	N			See continuation page.
Ni-63	Glass.	SiO2.	T .17260000000000	CI	1960	1960	N			See continuation page.
Co-60	Glass.	SiO2.	T .36140000000000	CI	1960	1960	N			See continuation page.
Sr-90	Glass.	SiO2.	T .00049630000000	CI	1960	1960	N			See continuation page.
Tc-99	Glass.	SiO2.	T .00009710000000	CI	1960	1960	N			See continuation page.
I-129	Glass.	SiO2.	T .00000002525000	CI	1960	1960	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .10790000000000	CI	1960	1960	N			See continuation page.
Ce-144	Glass.	SiO2.	T .00253500000000	CI	1960	1960	N			See continuation page.
Eu-154	Glass.	SiO2.	T .00000156400000	CI	1960	1960	N			See continuation page.
Eu-155	Glass.	SiO2.	T .00507100000000	CI	1960	1960	N			See continuation page.
U-234	Glass.	SiO2.	T .00000113300000	CI	1960	1960	N			See continuation page.
U-235	Glass.	SiO2.	T .00000002430000	CI	1960	1960	N			See continuation page.
U-236	Glass.	SiO2.	T .00000043150000	CI	1960	1960	N			See continuation page.
Np-237	Glass.	SiO2.	T .00000070120000	CI	1960	1960	N			See continuation page.
Pu-238	Glass.	SiO2.	T .00002913000000	CI	1960	1960	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .00002913000000	CI	1960	1960	N			See continuation page.
Pu-240	Glass.	SiO2.	T .00000307500000	CI	1960	1960	N			See continuation page.
Pu-241	Glass.	SiO2.	T .00318300000000	CI	1960	1960	N			See continuation page.
Am-241	Glass.	SiO2.	T .00001456000000	CI	1960	1960	N			See continuation page.
Cm-242	Glass.	SiO2.	T .00001456000000	CI	1960	1960	N			See continuation page.
Cm-244	Glass.	SiO2.	T .00001349000000	CI	1960	1960	N			See continuation page.
H-3	Glass.	SiO2.	T 8.2010000000000	CI	1961	1961	N			See continuation page.
C-14	Glass.	SiO2.	T 1.1000000000000	CI	1961	1961	N			See continuation page.
Fe-55	Glass.	SiO2.	T 190.00000000000	CI	1961	1961	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .05700000000000	CI	1961	1961	N			See continuation page.
Ni-63	Glass.	SiO2.	T 3.2000000000000	CI	1961	1961	N			See continuation page.
Co-60	Glass.	SiO2.	T 67.000000000000	CI	1961	1961	N			See continuation page.
Sr-90	Glass.	SiO2.	T .09201000000000	CI	1961	1961	N			See continuation page.
Tc-99	Glass.	SiO2.	T .01800000000000	CI	1961	1961	N			See continuation page.
I-129	Glass.	SiO2.	T .00000468000000	CI	1961	1961	N			See continuation page.
Cs-137	Glass.	SiO2.	T 20.000000000000	CI	1961	1961	N			See continuation page.
Ce-144	Glass.	SiO2.	T .47000000000000	CI	1961	1961	N			See continuation page.
Eu-154	Glass.	SiO2.	T .00029000000000	CI	1961	1961	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .94010000000000	CI	1961	1961	N			See continuation page.
U-234	Glass.	SiO2.	T .00021000000000	CI	1961	1961	N			See continuation page.
U-235	Glass.	SiO2.	T .00000450000000	CI	1961	1961	N			See continuation page.
U-236	Glass.	SiO2.	T .00008001000000	CI	1961	1961	N			See continuation page.
Np-237	Glass.	SiO2.	T .00013000000000	CI	1961	1961	N			See continuation page.
Pu-238	Glass.	SiO2.	T .00540000000000	CI	1961	1961	N			See continuation page.
Pu-239	Glass.	SiO2.	T .00540000000000	CI	1961	1961	N			See continuation page.
Pu-240	Glass.	SiO2.	T .00057000000000	CI	1961	1961	N			See continuation page.
Pu-241	Glass.	SiO2.	T .59000000000000	CI	1961	1961	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .00270000000000	CI	1961	1961	N			See continuation page.
Cm-242	Glass.	SiO2.	T .00270000000000	CI	1961	1961	N			See continuation page.
Cm-244	Glass.	SiO2.	T .00250000000000	CI	1961	1961	N			See continuation page.
H-3	Glass.	SiO2.	T .01785000000000	CI	1966	1966	N			See continuation page.
C-14	Glass.	SiO2.	T .00239500000000	CI	1966	1966	N			See continuation page.
Fe-55	Glass.	SiO2.	T .41370000000000	CI	1966	1966	N			See continuation page.
Ni-59	Glass.	SiO2.	T .00012410000000	CI	1966	1966	N			See continuation page.
Ni-63	Glass.	SiO2.	T .06968000000000	CI	1966	1966	N			See continuation page.
Co-60	Glass.	SiO2.	T .14590000000000	CI	1966	1966	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .00020030000000	CI	1966	1966	N			See continuation page.
Tc-99	Glass.	SiO2.	T .00003919000000	CI	1966	1966	N			See continuation page.
I-129	Glass.	SiO2.	T .00000001019000	CI	1966	1966	N			See continuation page.
Cs-137	Glass.	SiO2.	T .04355000000000	CI	1966	1966	N			See continuation page.
Ce-144	Glass.	SiO2.	T .00102300000000	CI	1966	1966	N			See continuation page.
Eu-154	Glass.	SiO2.	T .00000063140000	CI	1966	1966	N			See continuation page.
Eu-155	Glass.	SiO2.	T .00204700000000	CI	1966	1966	N			See continuation page.
U-234	Glass.	SiO2.	T .00000045720000	CI	1966	1966	N			See continuation page.
U-235	Glass.	SiO2.	T .00000000980000	CI	1966	1966	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .00000017420000	CI	1966	1966	N			See continuation page.
Np-237	Glass.	SiO2.	T .00000028310000	CI	1966	1966	N			See continuation page.
Pu-238	Glass.	SiO2.	T .00001176000000	CI	1966	1966	N			See continuation page.
Pu-239	Glass.	SiO2.	T .00001176000000	CI	1966	1966	N			See continuation page.
Pu-240	Glass.	SiO2.	T .00000124100000	CI	1966	1966	N			See continuation page.
Pu-241	Glass.	SiO2.	T .00128500000000	CI	1966	1966	N			See continuation page.
Am-241	Glass.	SiO2.	T .00000587900000	CI	1966	1966	N			See continuation page.
Cm-242	Glass.	SiO2.	T .00000587900000	CI	1966	1966	N			See continuation page.
Cm-244	Glass.	SiO2.	T .00000544300000	CI	1966	1966	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .65660000000000	CI	1968	1968	N			See continuation page.
C-14	Glass.	SiO2.	T .08808000000000	CI	1968	1968	N			See continuation page.
Fe-55	Glass.	SiO2.	T 15.210000000000	CI	1968	1968	N			See continuation page.
Ni-59	Glass.	SiO2.	T .00456400000000	CI	1968	1968	N			See continuation page.
Ni-63	Glass.	SiO2.	T 2.5620000000000	CI	1968	1968	N			See continuation page.
Co-60	Glass.	SiO2.	T 5.3653000000000	CI	1968	1968	N			See continuation page.
Sr-90	Glass.	SiO2.	T .00736600000000	CI	1968	1968	N			See continuation page.
Tc-99	Glass.	SiO2.	T .00144100000000	CI	1968	1968	N			See continuation page.
I-129	Glass.	SiO2.	T .00000037476000	CI	1968	1968	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T 1.6010000000000	CI	1968	1968	N			See continuation page.
Ce-144	Glass.	SiO2.	T .03763000000000	CI	1968	1968	N			See continuation page.
Eu-154	Glass.	SiO2.	T .00002322000000	CI	1968	1968	N			See continuation page.
Eu-155	Glass.	SiO2.	T .07527000000000	CI	1968	1968	N			See continuation page.
U-234	Glass.	SiO2.	T .00001681000000	CI	1968	1968	N			See continuation page.
U-235	Glass.	SiO2.	T .00000036030000	CI	1968	1968	N			See continuation page.
U-236	Glass.	SiO2.	T .00000640600000	CI	1968	1968	N			See continuation page.
Np-237	Glass.	SiO2.	T .00001041000000	CI	1968	1968	N			See continuation page.
Pu-238	Glass.	SiO2.	T .00043240000000	CI	1968	1968	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)

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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	Glass.	SiO2.	T .00043240000000	CI	1968	1968	N			See continuation page.
Pu-240	Glass.	SiO2.	T .00004564000000	CI	1968	1968	N			See continuation page.
Pu-241	Glass.	SiO2.	T .04724000000000	CI	1968	1968	N			See continuation page.
Am-241	Glass.	SiO2.	T .00021620000000	CI	1968	1968	N			See continuation page.
Cm-242	Glass.	SiO2.	T .00021620000000	CI	1968	1968	N			See continuation page.
Cm-244	Glass.	SiO2.	T .00020020000000	CI	1968	1968	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)

PART E - SOURCES OF INFORMATION AND UNCERTAINTIES - TRA-603-7H

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

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

2. Details concerning source (names, report no., dates, etc.)
Interviewees wish to remain anonymous.

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 section and half lives. The MFP radionuclides were chosen based on fission products and their 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.

A Geiger-Mueller counter was probably used to measure this item. Therefore, a true uncertainty is not known.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 150

1. Preparer: Amaro, C.

2. Date prepared: 08/25/93

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

4. Particular facility: 603
(building number - use code from attached list)

5. Number of waste stream from this facility:
8H

6. Waste stream:
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 1961 Ending year 1972

9. Waste stream volume:
Amount 1.8970 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)
Radiation sources.
[ ] other (specify)

2. Details on physical form(particularly confinement related)
Two sources were Ra-226.

3. Chemical form:
Metal.

4. Inner packaging: [X] plastic bag [ ] plastic liner
[ ] metal liner [ ] 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. "Other", which cannot be defined by the preparer.

For each contaminant, complete at least one line on the following table. If any entries for that contaminant vary by year, fill out additional lines as needed to cover the varying entries for different years. For example, 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 .08309000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
C-14	Solid.	Unknown.	T .01115000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Fe-55	Solid.	Unknown.	T 1.9250000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ni-59	Solid.	Unknown.	T .00057760000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ni-63	Solid.	Unknown.	T .32430000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Co-60	Solid.	Unknown.	T .67890000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Sr-90	Solid.	Unknown.	T .00093230000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Tc-99	Solid.	Unknown.	T .00018240000000	CI	1961	1961	N	-50%	+50%	See continuation page.
I-129	Solid.	Unknown.	T .00000004742000	CI	1961	1961	N	-50%	+50%	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.	Unknown.	T .20270000000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Ce-144	Solid.	Unknown.	T .00476300000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Eu-154	Solid.	Unknown.	T .00000293900000	CI	1961	1961	N	-50%	+50%	See continuation page.
Eu-155	Solid.	Unknown.	T .00952500000000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-234	Solid.	Unknown.	T .00000212800000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-235	Solid.	Unknown.	T .00000004560000	CI	1961	1961	N	-50%	+50%	See continuation page.
U-236	Solid.	Unknown.	T .00000081070000	CI	1961	1961	N	-50%	+50%	See continuation page.
Np-237	Solid.	Unknown.	T .00000131700000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-238	Solid.	Unknown.	T .00005472000000	CI	1961	1961	N	-50%	+50%	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.	Unknown.	T .00005472000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-240	Solid.	Unknown.	T .00000577600000	CI	1961	1961	N	-50%	+50%	See continuation page.
Pu-241	Solid.	Unknown.	T .00597900000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Am-241	Solid.	Unknown.	T .00002736000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Cm-242	Solid.	Unknown.	T .00002736000000	CI	1961	1961	N	-50%	+50%	See continuation page.
Cm-244	Solid.	Unknown.	T .00002533000000	CI	1961	1961	N	-50%	+50%	See continuation page.
H-3	Solid.	Unknown.	T .00806900000000	CI	1965	1965	N	-50%	+50%	See continuation page.
C-14	Solid.	Unknown.	T .00108200000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Fe-55	Solid.	Unknown.	T .18700000000000	CI	1965	1965	N	-50%	+50%	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	Solid.	Unknown.	T .00005609000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Ni-63	Solid.	Unknown.	T .03149000000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Co-60	Solid.	Unknown.	T .06593000000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Sr-90	Solid.	Unknown.	T .00009053000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Tc-99	Solid.	Unknown.	T .00001771000000	CI	1965	1965	N	-50%	+50%	See continuation page.
I-129	Solid.	Unknown.	T .00000000461000	CI	1965	1965	N	-50%	+50%	See continuation page.
Cs-137	Solid.	Unknown.	T .01968000000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Ce-144	Solid.	Unknown.	T .00046250000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Eu-154	Solid.	Unknown.	T .00000028540000	CI	1965	1965	N	-50%	+50%	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)

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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
Eu-155	Solid.	Unknown.	T .00092500000000	CI	1965	1965	N	-50%	+50%	See continuation page.
U-234	Solid.	Unknown.	T .00000020660000	CI	1965	1965	N	-50%	+50%	See continuation page.
U-235	Solid.	Unknown.	T .00000000440000	CI	1965	1965	N	-50%	+50%	See continuation page.
U-236	Solid.	Unknown.	T .00000007870000	CI	1965	1965	N	-50%	+50%	See continuation page.
Np-237	Solid.	Unknown.	T .00000012790000	CI	1965	1965	N	-50%	+50%	See continuation page.
Pu-238	Solid.	Unknown.	T .00000531400000	CI	1965	1965	N	-50%	+50%	See continuation page.
Pu-239	Solid.	Unknown.	T .00000531400000	CI	1965	1965	N	-50%	+50%	See continuation page.
Pu-240	Solid.	Unknown.	T .00000056090000	CI	1965	1965	N	-50%	+50%	See continuation page.
Pu-241	Solid.	Unknown.	T .00058060000000	CI	1965	1965	N	-50%	+50%	See continuation page.

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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
Am-241	Solid.	Unknown.	T .00000265700000	CI	1965	1965	N	-50%	+50%	See continuation page.
Cm-242	Solid.	Unknown.	T .00000265700000	CI	1965	1965	N	-50%	+50%	See continuation page.
Cm-244	Solid.	Unknown.	T .00000246000000	CI	1965	1965	N	-50%	+50%	See continuation page.
Ra-226	Solid.	Ra-226.	T .00000000100000	CI	1965	1965	N	-20%	+20%	See comment below.
H-3	Solid.	Unknown.	T .00024120000000	CI	1972	1972	N	-50%	+50%	See continuation page.
C-14	Solid.	Unknown.	T .00003235000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Fe-55	Solid.	Unknown.	T .00558800000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Ni-59	Solid.	Unknown.	T .00000167600000	CI	1972	1972	N	-50%	+50%	See continuation page.
Ni-63	Solid.	Unknown.	T .00094110000000	CI	1972	1972	N	-50%	+50%	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)

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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
Co-60	Solid.	Unknown.	T .00197100000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Sr-90	Solid.	Unknown.	T .00000270600000	CI	1972	1972	N	-50%	+50%	See continuation page.
Tc-99	Solid.	Unknown.	T .00000052940000	CI	1972	1972	N	-50%	+50%	See continuation page.
I-129	Solid.	Unknown.	T .00000000014000	CI	1972	1972	N	-50%	+50%	See continuation page.
Cs-137	Solid.	Unknown.	T .00058820000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Ce-144	Solid.	Unknown.	T .00001382000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Eu-154	Solid.	Unknown.	T .00000000850000	CI	1972	1972	N	-50%	+50%	See continuation page.
Eu-155	Solid.	Unknown.	T .00002765000000	CI	1972	1972	N	-50%	+50%	See continuation page.
U-234	Solid.	Unknown.	T .00000000620000	CI	1972	1972	N	-50%	+50%	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).

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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-235	Solid.	Unknown.	T .00000000010000	CI	1972	1972	N	-50%	+50%	See continuation page.
U-236	Solid.	Unknown.	T .00000000240000	CI	1972	1972	N	-50%	+50%	See continuation page.
Np-237	Solid.	Unknown.	T .00000000380000	CI	1972	1972	N	-50%	+50%	See continuation page.
Pu-238	Solid.	Unknown.	T .00000015880000	CI	1972	1972	N	-50%	+50%	See continuation page.
Pu-239	Solid.	Unknown.	T .00000015880000	CI	1972	1972	N	-50%	+50%	See continuation page.
Pu-240	Solid.	Unknown.	T .00000001680000	CI	1972	1972	N	-50%	+50%	See continuation page.
Pu-241	Solid.	Unknown.	T .00001735000000	CI	1972	1972	N	-50%	+50%	See continuation page.
Am-241	Solid.	Unknown.	T .00000007940000	CI	1972	1972	N	-50%	+50%	See continuation page.
Cm-242	Solid.	Unknown.	T .00000007940000	CI	1972	1972	N	-50%	+50%	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
Cm-244	Solid.	Unknown.	T .00000007350000	CI	1972	1972	N	-50%	+50%	See continuation page.
Ra-226	Solid.	Ra-226.	T 1.2500000000000	CI	1972	1972	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).

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

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

2. Details concerning source (names, report no., dates, etc.)
Interviewees wish to remain anonymous.

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 based on their cross sections and half lives while MFP were chosen based on fissionable products and their half lives.

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

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

2. Details concerning source (names, report no., dates, etc.)
Interviewees wish to remain anonymous.

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 based on their cross sections and half lives while MFP were chosen based on fissionable products and their half lives.

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

The total activity of the item is known, however MAP and MFP were assigned equal values. A sodium iodide detector was probably used by the Radiations Measurements Lab (RML) at TRA to analyze the sources. This instrument has broad peaks and therefore a radionuclide may be masked by a more dominant radionuclide. Also, the source strength is usually a well known quantity. The RML has been at TRA since the 50's. Various samples were routinely brought to the lab for analysis. The "N" in the "Samples? Y/N" column is there because the preparer cannot verify a sample was counted, but based on experience and an interview with a RML employee, is confident a sample was counted.

DATA INPUT FOR HISTORICAL DATA TASK FOR RWMC SUBSURFACE DISPOSAL AREA

PART A - GENERAL INFORMATION HDT - 157

1. Preparer: Amaro, C.

2. Date prepared: 08/25/93

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

4. Particular facility: 603
(building number - use code from attached list)

5. Number of waste stream from this facility:
9H

6. Waste stream:
Irradiated 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 1960 Ending year 1977

9. Waste stream volume:
Amount 88207.0000 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. Also 632, 642, and 670.

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

2. Details on physical form(particularly confinement related)
Expended fuel and ceramic fuel.

3. Chemical form:
UO2 and UALX.

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:
Tritium is bound to metal, and therefore, unlikely to migrate into the environment.

7. Comments (specify number of pertinent question):
5. BXC 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
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.	UALX.	T .68000000000000	CI	1960	1960	N	-50%	+50%	See comment (a) below.
Sr-90	Solid.	UALX.	T 151.97000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Tc-99	Solid.	UALX.	T .02000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Sb-125	Solid.	UALX.	T 8.9000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
I-129	Solid.	UALX.	T .00003517100000	CI	1960	1960	N	-50%	+50%	See continuation page.
Cs-137	Solid.	UALX.	T 159.36000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Eu-152	Solid.	UALX.	T .00054646000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Eu-154	Solid.	UALX.	T 11.950000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Eu-155	Solid.	UALX.	T 7.5500000000000	CI	1960	1960	N	-50%	+50%	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)

a. H-3, tritium, is bound to the metal and not likely to migrate to its surrounding environment.

b. 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).

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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-234	Solid.	UALX.	T .00160320000000	CI	1960	1960	N	-50%	+50%	See continuation page.
U-235	Solid.	UALX.	T .00003582500000	CI	1960	1960	N	-50%	+50%	See continuation page.
U-236	Solid.	UALX.	T .00063968000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Np-237	Solid.	UALX.	T .00098391000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Pu-238	Solid.	UALX.	T 4.1200000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Pu-239	Solid.	UALX.	T .02000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Pu-240	Solid.	UALX.	T .01000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Pu-241	Solid.	UALX.	T 7.1400000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Am-241	Solid.	UALX.	T .01000000000000	CI	1960	1960	N	-50%	+50%	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)

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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.	UALX.	T .00010932000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Am-243	Solid.	UALX.	T .00139340000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Cm-242	Solid.	UALX.	T .07000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
Cm-244	Solid.	UALX.	T .19000000000000	CI	1960	1960	N	-50%	+50%	See continuation page.
H-3	Solid.	UALX.	T 6.2500000000000	CI	1962	1962	N	-50%	+50%	See comment (a) below.
Sr-90	Solid.	UALX.	T 1402.2700000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Tc-99	Solid.	UALX.	T .18000000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Sb-125	Solid.	UALX.	T 82.140000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
I-129	Solid.	UALX.	T .00032453000000	CI	1962	1962	N	-50%	+50%	See continuation page.

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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
Cs-137	Solid.	UALX.	T 1470.5000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Eu-152	Solid.	UALX.	T .01000000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Eu-154	Solid.	UALX.	T 110.23000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Eu-155	Solid.	UALX.	T 69.670000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
U-234	Solid.	UALX.	T .01000000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
U-235	Solid.	UALX.	T .00033056000000	CI	1962	1962	N	-50%	+50%	See continuation page.
U-236	Solid.	UALX.	T .01000000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Np-237	Solid.	UALX.	T .01000000000000	CI	1962	1962	N	-50%	+50%	See continuation page.
Pu-238	Solid.	UALX.	T 38.060000000000	CI	1962	1962	N	-50%	+50%	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)

a. H-3, tritium, is bound to the metal and not likely to migrate to its surrounding environment.

b. 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).