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INITIAL [illegible] DATE 3/2/95

DECISION DOCUMENTATION PACKAGE
COVER SHEET

prepared in accordance with

TRACK 1 SITES:
GUIDANCE FOR ASSESSING
LOW PROBABILITY HAZARD SITES
AT THE INEL

Site Description: Underground Storage Tank CFA 609

Site ID: CFA-20 **Operable Unit: 4-03**

Waste Area Group: 4

I. SUMMARY - Physical description of the site:

The Central Facilities Area (CFA)-20 (CFA-609) was the site of an underground storage tank (UST). Engineering drawings indicate that the tank capacity was 275 gal. The tank was used to store fuel oil for heating a now non-existent building called CFA-609 that was demolished and replaced by the current CFA-612 and an adjacent asphalted parking lot. Records indicate that the tank was installed in 1952 and last used in 1985.

The exact location of the tank relative to the old CFA-609 building was near the northeast corner. Attached maps do not have a scale, so the exact distance from the building cannot be determined.

There are no written removal records, although reference to a letter dated April 17, 1989 (not found) stated that the tank had been excavated. Personal communication with an equipment operator (EO) working during demolition of the old CFA-609 indicated that the tank had been removed and the excavation backfilled in approximately 1985 or 1986. No information was found on the condition of the tank upon removal, any visual evidence of soil contamination in the excavation, or the quantity of product remaining in the tank. The equipment operator stated that the tank was disposed of in CFA Landfill III.

No tank content sampling or soil sampling records could be found.

DECISION RECOMMENDATION

II. SUMMARY - Qualitative Assessment of Risk:

The reliability of information provided in this report is high. Written documentation of tank removal or sampling could not be found. Most of the information available on this tank came from multiple personal communications that, in most cases, confirmed one another. Due to the size of the tank (275 gal) and the information suggesting that it was excavated, the qualitative assessment of risk is low.

III. SUMMARY - Consequences of Error:

False positive error

If further action is completed at this site, the funds expended would exceed the environmental benefit. The former location of the tank is under current building CFA-612 and its asphalt parking lot to the northeast. Excavation and investigation would be impracticable.

False negative error

If no further action is taken at this site and the tank actually remains in place, there is the possibility that fuel has leaked or could still be leaking from the tank. However, there is no driving force to the groundwater because of the low annual precipitation and high evapotranspiration rates and the fact that the site is covered by a building and asphalt parking lot.

IV. SUMMARY - Other Decision Drivers:

The supposed original location of tank CFA-609 is buried by the current building CFA-612 and its adjacent asphalt parking lot.

Recommended Action:

Site CFA-20 should be reclassified to No Action status. Because no tank content or soil sampling data could be found, the fact that the tank capacity was 275 gal and the fact that the building associated with this tank has been demolished and replaced by CFA-612 and an adjacent parking lot, qualitative risk for this site is low. It is recommended that no further action be taken at this site.

Signatures	# PAGES: 18	DATE: 12/03/93
Prepared By:	DOE WAG Manager:	
Approved By:	Independent Review:	

NO FURTHER ACTION DETERMINATION

The U.S. Department of Energy, the U.S. Environmental Protection Agency (EPA) - Region 10, and the State of Idaho have completed a review of the referenced information for CFA-20 hazardous waste site, as it pertains to the INEL Federal Facility Agreement of December 9, 1991. Based on this review, the Parties have determined that no further action for purposes of investigation or study is justified. This decision is subject to review at the time of issuance of the Record of Decision.

Brief summary of the basis for no further action:

References: Track 1 Pkg.

DOE Project Manager	Lisa Green for Jayle	2/06/95 Date
EPA Project Manager	[illegible]	2/7/95 Date
Idaho Project Manager	[illegible]	2/7/95 Date

DECISION STATEMENT
(by DOE RPM)

Date Recd: 2/06/95 CFA-20

Disposition

Interviews support that 275 gal fuel oil tank was removed during construction of building. Likely no source term exists, therefore no further action recommended.

DATE: 2/06/95	**# PAGES (decision statement):** 1
NAME: Lisa Green for J Lyle	**SIGNATURE:** Lisa Green for JLyle

DECISION STATEMENT
(by EPA RPM)

Date Recd: 2/6/95 CFA 20

Disposition

CFA 20 is location of removed 275 gal UST used between '52 and '85. Based on personal interview the tank had been removed in mid '80's Tank was used for fuel storage. Based on volume of tank there doesn't appear to be a significant threat and therefore, no further action is recommended

DATE: 2/7/95	**# PAGES (decision statement):**
NAME: Wayne Pierre	**SIGNATURE:** [signature]

DECISION STATEMENT
(by STATE RPM)

CFA - 20

Date Recd: 2/7/95

Disposition

Site is a 275 gallon heating fuel oil tank removed in 1985 or 1986. Calculations support that a tank failure of 275 gallons would contaminate approximately 24 yd^3 of soil. This quantity of soil contaminated with fuel is unlikely to pose an unacceptable risk to the aquifer. No further investigation is recommended.

DATE: 2/7/95	**# PAGES (decision statement):**
NAME: Dean J. Nygard	**SIGNATURE:** Dean J. Nygard

PROCESS/WASTE WORKSHEET
SITE ID CFA-20

Col 1 Processes Associated with this site	Col 2 Waste Description & Handling Procedures	Col 3 Description & Location of any Artifacts/Structures/Disposal Areas Associated with this Waste or Process
Process Fuel oil was stored in an UST (CFA-609) for use by now non-existent building CFA-609 (replaced by CFA-612).	The site was used for fuel oil storage. Records do not indicate that the tank was used for waste disposal. No records exist for tank content emptying, sampling, or tank removal.	Artifact: UST Location: Northeast corner of former building CFA-609. Tank believed to be removed. Description: 275-gal carbon steel tank
Filling the tank. Oil distribution lines.	The tank could be filled locally or through a centralized distribution system. There are no records of a spill.	Artifact: Associated piping Location: Unknown Description: Unknown amount of piping previously connected to the UST. A 2-in. pipe may still be in place.

CONTAMINANT WORKSHEET
SITE ID CFA-20

PROCESS (Col 1) UST CFA-609 **WASTE** (Col 2) NA

Col 4 What Known/Potential Hazardous Substance/Constituents are Associated with this Waste or Process?	Col 5 Potential Sources Associated with this Hazardous Material	Col 6 Known/Estimated Concentration of Hazardous Substances/ Constituents	Col 7 Risk-based Concentration (mg/kg)	Col 8 Qualitative Risk Assessment (hi/med/lo)	Col 9 Overall Reliability (hi/med/lo)
Hazardous materials					
Total petroleum hydrocarbons (TPH) - fuel oil[a]	Soil	No data[c]	NA[d]	Low	Med/High
Benzene[b]	Soil	No data[c]	NA[e]	Low	Med/High
Toluene[b]	Soil	No data[c]	NA[e]	Low	Med/High
Ethylbenzene[b]	Soil	No data[c]	NA[e]	Low	Med/High
p-xylene[b]	Soil	No data[c]	NA[e]	Low	Med/High
m-xylene, chlorobenzene[b]	Soil	No data[c]	NA[e]	Low	Med/High
o-xylene[b]	Soil	No data[c]	NA[e]	Low	Med/High

[a] EPA Method SW-846-8015

[b] EPA Method SW-846-8020

[c] No sampling data was collected.

[d] No EPA toxicity information exists. Therefore, no risk-based calculation was performed.

[e] Risk-based concentrations not determined because no sampling data exists.

NA = not applicable

QUALITATIVE RISK AND RELIABILITY EVALUATION TABLE			
	QUALITATIVE RISK		
	Low	Medium	High
highly unreliable	screening data	TRACK 2	screening data
highly reliable	**No Action Required**	RI/FS	**Interim Action** *
Reliability	LOW concentration resulting in risk < 10^{-6}	MEDIUM	HIGH concentration resulting in risk > 10^{-4}
	Qualitative risk		

* If sufficient data exist to identify an appropriate remedy.

NOTE: Lined box represents the entire site.

Question 1. What are the waste generation process locations and dates of operation associated with this site?

Block 1 Answer:

CFA-20 (CFA-609) was the site of a UST used approximately from 1952 to 1985. Engineering drawings for the building indicate that the tank capacity was 275 gal. The original location was near the northeast corner of a now non-existent building called CFA-609. CFA-609 was demolished and building CFA-612 and an adjacent asphalted parking lot were constructed at the same location. No written tank removal records exist; however, personal communication with individuals familiar with the tank's history indicate that the tank and its contents were removed. There are no records or evidence indicating that the tank was used for waste disposal.

Block 2 How reliable are the information sources? X High _Med _Low (check one)

Explain the reasoning behind this evaluation.

The only available written information is a general tank summary sheet. Tank removal records including sampling data, actual location of the tank, engineering drawings, or logbooks were not found. All other information was obtained via interviews with Idaho National Engineering Laboratory (INEL) personnel familiar with tank history. These accounts generally confirmed each other.

Block 3 Has this INFORMATION been confirmed? X Yes _No (check one)

If so, describe the confirmation.

An extensive search for records was unsuccessful. Personal communications with individuals familiar with tank history were generally confirming.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[ ]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[x]	4,5,6	D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[x]	1			

Question 2. What are the disposal process locations and dates of operation associated with this site?

Block 1 Answer:

Records indicate that this site was used for fuel storage only and not waste disposal. Fuel was stored in the tank from 1952 to 1985. No records exist that indicate the amount of product remaining in the tank at the time of removal. The exact location of the tank relative to the old CFA-609 building was at the edge of the northeast corner of the building.

Block 2 How reliable are the information sources? X High _Med _Low (check one)

Explain the reasoning behind this evaluation.

The only available records and personal communications indicate that the tank was used for fuel storage only.

Block 3 Has this INFORMATION been confirmed? X Yes _No (check one)

If so, describe the confirmation.

Summary document information was supported by information received during personal interviews.

Block 4 **Sources of Information** (check appropriate box(es) & source number from reference list)

No available information	[ ]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[x]	4,5,6	D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[x]	1			

Question 3. Is there evidence that a source exists at this site? If so, list the sources and describe the evidence.

Block 1 Answer:

There is no evidence that a source exists at this site. Although tank removal activities were not formally documented, tank contents were not sampled, and soil around the excavation was not sampled, other supporting information indicates that the tank and its contents were removed from the site.

Block 2 How reliable are the information sources? X High _Med _Low (check one)
Explain the reasoning behind this evaluation.

Available documents were supported by communication with persons familiar with the history of the tank.

Block 3 Has this INFORMATION been confirmed? X Yes _No (check one)
If so, describe the confirmation.

Interviews were pursued with many personnel familiar with the history of this tank.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[ ]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[ ]		D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[x]	1			

Question 4. Is there empirical, circumstantial, or other evidence of migration?
If so, what is it?

Block 1 Answer:

There is no empirical, circumstantial, or other evidence of contaminant migration. No tank content, soil sampling, or tank removal documentation could be found.

Block 2 How reliable are the information sources? _High _Med x Low (check one)
Explain the reasoning behind this evaluation.

There is no information with which to address Question 4 and, consequently, no estimate of that information's reliability. An extensive search for information with which to answer this question was unsuccessful.

Block 3 Has this INFORMATION been confirmed? _Yes x No (check one)
If so, describe the confirmation.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[x]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[ ]		D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[ ]				

Question 5. Does site operating or disposal historical information allow estimation of the pattern of potential contamination? If the pattern is expected to be a scattering of hot spots, what is the expected minimum size of a significant hot spot?

Block 1 Answer:

No information exists to estimate an expected contamination pattern. However, contamination due to leakage through holes rusted in the tank body may generate a hot spot(s) centered beneath and around the tank. Leakage through the vent, fuel supply, or fuel return pipes may generate a hot spot(s) centered on the hole(s) in the pipe(s).

Block 2 How reliable are the information sources? _High _Med x Low (check one)

Explain the reasoning behind this evaluation.

There is no information with which to address Question 5. Any estimation of a contamination pattern is speculative. Consequently, reliability of this information cannot be assessed.

Block 3 Has this INFORMATION been confirmed? _Yes x No (check one)

If so, describe the confirmation.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[x]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[ ]		D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[ ]				

Question 6. Estimate the length, width, and depth of the contaminated region. What is the known or estimated volume of the source? If this is an estimated volume, explain carefully how the estimate was derived.

Block 1 Answer:

No information exists with which to answer this question. However, a model (attached) can be used to estimate the volume of a possible source at site CFA-20 if one assumes that a source remains. This estimate is calculated using 100% of one tank volume (275 gal) as the spill quantity. If such a source is present at site CFA-20, then the volume of contaminated soil is estimated to be approximately 23.8 yd^3. By taking the cube root of the volume of the total source, the dimensions of the volume of contamination for the entire amount of fuel that could be present at this site is estimated to be approximately
2.88 x 2.88 x 2.88 yd.

Block 2 How reliable are the information sources? _High _Med x Low (check one)
Explain the reasoning behind this evaluation.

There is no information with which to judge the reliability of the answer to Question 6. Consequently, no appraisal of information reliability was made.
The calculations presented above are speculative. An extensive search for documentation was unsuccessful.

Block 3 Has this INFORMATION been confirmed? _Yes x No (check one)
If so, describe the confirmation.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[x]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[ ]		D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[x]	2			

Question 7. What is the known or estimated quantity of hazardous substance/constituent at this source? If the quantity is an estimate, explain carefully how the estimate was derived.

Block 1 Answer:

No sampling data exist to determine if hazardous substance/constituent is present at this site. However, if it is assumed that 100% of one tank volume leaked from the tank, then an estimated 275 gal of fuel would be the quantity of hazardous substance present at this site.

Block 2 How reliable are the information sources? _High _Med x Low (check one)

Explain the reasoning behind this evaluation.

There is no information with which to assess the reliability of the answer to Question 7. An extensive search for sampling data was unsuccessful.

Block 3 Has this INFORMATION been confirmed? _Yes x No (check one)

If so, describe the confirmation.

Block 4 **Sources of Information** [check appropriate box(es) & source number from reference list]

No available information	[x]		Analytical data	[ ]	
Anecdotal	[ ]		Documentation about data	[ ]	
Historical process data	[ ]		Disposal data	[ ]	
Current process data	[ ]		Q.A. data	[ ]	
Aerial photographs	[ ]		Safety analysis report	[ ]	
Engineering/site drawings	[ ]		D&D report	[ ]	
Unusual Occurrence Report	[ ]		Initial assessment	[ ]	
Summary documents	[ ]		Well data	[ ]	
Facility SOPs	[ ]		Construction data	[ ]	
OTHER	[ ]				