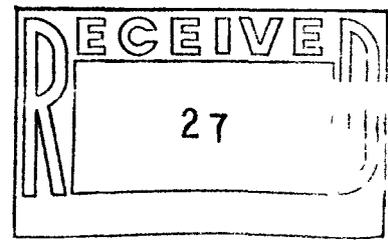


NO		
NO		
001		
672		
LIST	LTR	ENC
W.A.	X	X
CHER, B J	X	X
ANS, B L	X	X
McGOVERN L	X	X
PARKER A. M	X	X
LAURITA D	X	X
WATLAND R	X	X
GUTHRIE C	X	X



October 21, 1997

97-RF-05672

William Fitch
Decommissioning Program Coordinator
DOE, RFFO

CLOSURE PLAN FOR BUILDING 123 COMPONENTS OF RESOURCE CONSERVATION RECOVERY ACT (RCRA) UNIT 40 FOR BUILDING 123 DECOMMISSIONING - KAD-098-97

PURPOSE

The purpose of this letter is to forward to your office the revised copy of the Closure Plan for Building 123 Components of RCRA Unit 40 for the Building 123 Decommissioning Project

DISCUSSION

Please find attached for your use, and to forward to the appropriate oversight state agencies, the revised Closure Plan for Building 123 Components of RCRA Unit 40 for the Building 123 Decommissioning Project. All comments received from the State of Colorado, Department of Public Health and the Environment, have been incorporated into the document based on the meeting held on October 15, 1997

RESPONSE REQUIREMENTS

Contact my office at extension 6034, if there are any additional comments or concerns regarding the Building 123 Decommissioning Project

Kent Dorr
Project Oversight

FILE	X	X
CORRES CONTROL	X	X
ADMIN RECRD/080		
TRAFFIC		
PATS/T130G		
CLASSIFICATION		
UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER
SIGNATURE

alw

Date October 21, 1997

Orig and 1 cc - William Fitch

IN REPLY TO RFP CC NO

CTION ITEM STATUS
 PARTIAL/OPEN
 CLOSE

Attachment
As Stated

LTR APPROVALS

cc
Joe Legare - DOE, RFFO
Reginald Tyler - DOE, RFFO

IG & TYPIST INITIALS
K A DORR/alw

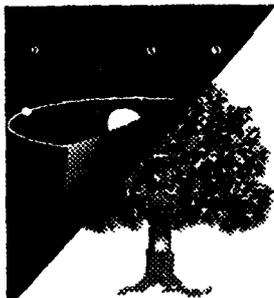
RF-46469 (Rev 4/25/95)

Hill Company, L L C

Address Rocky Flats Environmental Technology Site, State Hwy 93 and Cactus, Rocky Flats, CO 80007 • 303 966 7000
Address P O Box 464, Golden, Colorado 80402 0464



ADMIN RECORD
B123-A-00030



RF/RMRS-97-052

**Closure Plan for Building 123
Components of
RCRA Unit 40**

**U. S. Department of Energy
Rocky Flats Environmental Technology Site**

October 1997

**CLOSURE PLAN FOR BUILDING 123
COMPONENTS OF RCRA UNIT 40**

REVISION 0

OCTOBER 1997

This Closure Plan has been reviewed and approved by

Kelly Trice by Ted Hopkins
Kelly Trice, Director
Engineering, Construction, Decommissioning and Facilities Group

10/21/97
Date

Ted Hopkins
Ted Hopkins, Environmental Compliance Manager
Engineering, Construction, Decommissioning and Facilities Group

10/21/97
Date

This Closure Plan was prepared by.

Richard T. Jensen
Richard T. Jensen, Senior Engineer

10/20/97
Date

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CLOSURE PLAN FOR BUILDING 123 COMPONENTS OF RCRA UNIT 40

1.0 INTRODUCTION

Partial closure of RCRA Unit 40 includes the closure of the RCRA regulated process waste lines, sumps, and pumping stations associated with Building 123 at the Rocky Flats Environmental Technology Site (RFETS). This system includes above ground process waste lines currently used in the building, as well as one active underground line. The Building 123 area encompasses overlapping Individual Hazardous Substance Sites (IHSSs) 121 and 148. IHSS 121 includes the underground Original Process Waste Lines (OPWLs) P-1, P-2, and P-3. Figure 1-1 shows the location of Building 123 and IHSSs 121 and 148. Leakage from old process waste lines and possible spills from operations may have resulted in contaminated soil beneath and adjacent to Building 123. This potentially contaminated soil has been designated IHSS 148. The OPWL is a network of tank and underground pipelines constructed to transport and temporarily store process waste from point of origin to on-site treatment and discharge points. Both the active and inactive systems include above and underground lines that transfer the process waste to valve vaults or holding tanks. All process waste lines inside the building are currently active. Closure will include deactivation, dismantlement, and remediation of all system components in Building 123, and the active underground pipeline that leaves the building and extends to Valve Vault 18.

Partial closure of RCRA Unit 40 is part of a larger project to decontaminate and decommission (D&D) Building 123 and surrounding area. This project will remove Buildings 123, 123S, 113, and 114 at RFETS, eliminate IHSS 148, and close a portion of RCRA Unit 40. The Building 123 slab and foundation will be removed as required to remediate contamination beneath the building as dictated by soil sampling results. The overall project is being conducted as an accelerated action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) approved under the Building 123 Proposed Action Memorandum (PAM). The PAM is a decision document for the D&D of Building 123 and has been approved by the Colorado Department of Public Health and Environment (CDPHE). The Building 123 PAM references this unit closure plan. RCRA Unit 40 is currently under Interim status, and as a result, partial closure activities fall under Colorado Hazardous Waste Regulations Part 265, Subpart G - "Closure and Post Closure".

1.1 APPLICABILITY

This RCRA Closure Plan applies to both the aboveground and subsurface Process Waste Tank System found in and beneath Building 123. This Closure Plan will identify the options available for the management, and the removal and/or remediation of this system. This Closure Plan does not apply to the inactive portion of the P-1 Pipeline, to Pipelines P-2, or P-3 nor to any soil contamination found under this building.

The above ground and underground process waste line connecting Building 123 to Valve Vault 18 are the active part of RCRA Unit 40 associated with Building 123. Part of P-1 was incorporated into the current system. Pipelines P-2 and P-3 were abandoned in 1974. The underground section of P1 was removed in 1989. Building operations prior to 1985 that generated mixed waste were not regulated under RCRA, and, therefore, these pipelines are not part of RCRA Unit 40. As such, they are not included with this closure plan. The Building 123 PAM and Building 123 IHSS Sampling and Analysis Plan (SAP) address the investigation and potential remediation of the abandoned lines and any soil contamination created by the lines.

2 0 FACILITY CONTACT

The RFETS contact for closure activities is

Manager, Rocky Flats Field Office
U S Department of Energy
P O Box 928
Golden, Colorado 80402-0928

Phone (303) 966-2025

3 0 UNIT CLOSURE NOTIFICATION, CERTIFICATION AND SCHEDULE

The closure of the Building 123 above ground process waste system, sumps, and underground pipelines will be conducted as a partial closure of Unit 40. Notification will be submitted to the Director of the Colorado Department of Public Health and Environment (CDPHE) of the intent to close the process waste system 45 days prior to the planned start of closure activities.

If the total time necessary for closure is expected to exceed 180 days, the facility will notify the Director within 30 days of such a determination (Part 265 113(b)) and at least 30 days prior to the expiration of the 180 day closure period (Part 265 113(c)).

Within 60 days after completion of closure activities, the facility will notify CDPHE through submittal of proper certification that the unit has been closed in accordance with the approved closure plan. The certification package will be signed by the owner or operator and by an independent, Colorado-registered Professional Engineer.

4 0 REGULATORY REQUIREMENTS

A plan for closure of RCRA hazardous waste treatment and storage units at RFETS is required pursuant to 6 CCR 1007-3, Part 265 of the Colorado Hazardous Waste Regulations. Part 265, Subpart G - "Closure and Post Closure", Sections 265 110 through 265 120. No demonstration of financial responsibility is required because compliance with 6 CCR 1007-3, Part 266, Subpart A - "Financial Requirements", is not required for government owned facilities.

5.0 UNIT DESCRIPTION

RCRA Unit 40

RCRA Unit 40 is the site-wide network of tanks, pipelines, and sumps constructed to transport and temporarily store process waste from the point of origin to on-site treatment and discharge points. Operation of the process waste system in Building 123 began in 1952 in the east and central wings. An extension to the east wing was added in 1968, and the west wing was added in 1972. The process waste system for Building 123 was modified with each of the expansions to the building.

The process waste system incorporated into RCRA Unit 40 includes the system components in Rooms 103, 103A, 105, 111, 112, 113B, 121, 123, 123A, 124, 125, 126C, 127, 155, 155B, 156, 157, and 158 in the building, and the active underground line that connects to Valve Vault 18. A drawing of the building and the process waste piping is included in Appendix A. The history of the Building process waste system is described below.

Underground Section The original process waste lines (P2) were installed below grade in 1952. The southern portion of this system in the east wing was modified in 1968 when the east wing addition was constructed. The process waste line installed in 1968 is referred to as the P3 line.

In 1972, an additional underground process waste piping system was installed which serviced the construction of the west wing. The 1972 line is the P1 line. Construction of the west wing included three large interconnected concrete sump pits in Room 156, 157, and 158.

In 1974 an above grade process piping system (see below) was installed to replace the old P2 and P3 lines. When this new above-grade system was installed, the P2 and P3 lines were filled with grout.

In 1989 the below grade process waste piping system was upgraded. The sections of P1 that lie outside of Building 123 were removed. A new below grade piping system was installed in 1989 that went from the south west corner of Building 123 to Valve Vault 18. The 1989 section of the underground process waste piping was used until 1997.

Above Ground Section In 1974 a process waste piping system was installed above-grade in Building 123. This above grade system tied into the P1 below grade system, and later was tied into the 1989 below-grade piping system. In 1995, approximately 40% of the above-grade piping were modified and upgraded. The above grade piping system was used until 1997.

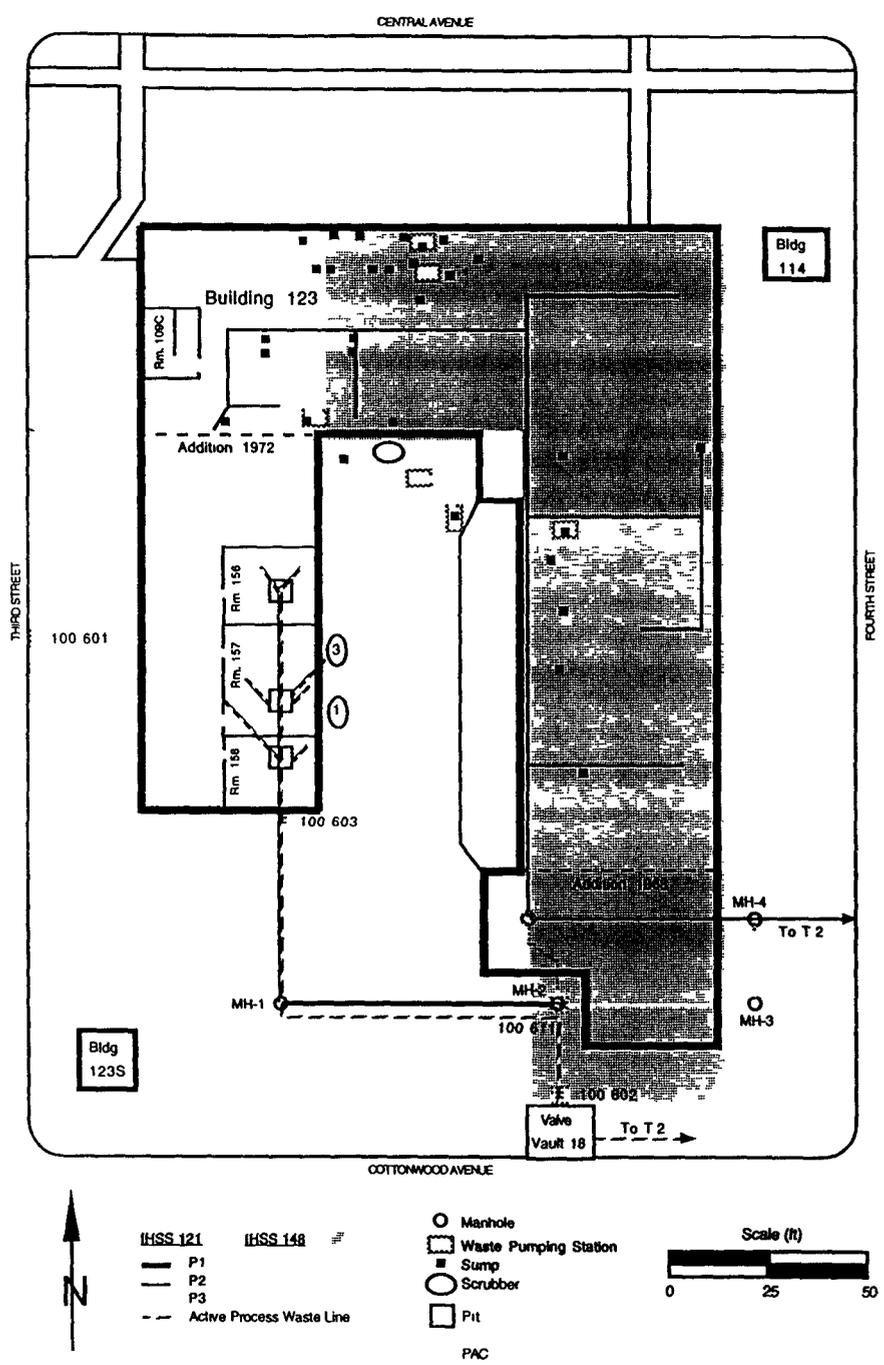


Figure 1-1 Location of Building 123 and Associated IHSSs 121 and 148

6.0 CHARACTERIZATION

6.1 PROCESS WASTE LINE CHARACTERIZATION

6.1.1 Above Ground Portion of RCRA Unit 40 in Building 123

Building 123 has always housed laboratory operations. Laboratories routinely generate organic compounds most of which (prior to 1987) were disposed of in the process waste system. Some of these chemicals would today be characterized as listed wastes. In 1987, administrative controls were established that prohibited the disposal of listed hazardous waste to the waste process system. In addition, satellite accumulation areas were established to manage all listed hazardous wastes generated in Building 123. Beginning in 1989, this system was used predominately as an elementary neutralization unit for D002 corrosive waste streams and was in use until the building ceased operations in 1997. The above ground pipeline system was upgraded in 1995 when approximately 40% of this system was replaced.

From 1987 to 1997, organic compounds such as Dibutyl-n-diethyl carbamoyl phosphate (DDCP) and toluene were used in very small quantities for Americium separation in Building 123. These wastes were disposed to the waste process line. The Waste Stream Residue Identification and Characterization (WSRIC) system does not identify any of these waste streams as being either RCRA listed or characteristic.

The WSRIC identifies the following process wastes as being disposed of in the process waste system:

Acids: nitric acid, hydrofluoric acid, sulfuric acid, hydrochloric acid, acetic acid, formic acid, oxalic acid, and perchloric acid,

Bases: ammonium hydroxide and sodium hydroxide,

Radionuclides: various isotopes of plutonium, americium, uranium, and curium,

Metals: Calcium, Magnesium, and Iron effluents, beryllium (trace amounts), and

Others: ammonium nitrate, ammonium thiocyanate, ammonium chloride, ammonium oxalate, ammonium hydroxylamine, ethylene glycol, DDCP, Diethylenetriaminepentaacetate (DTPA), potassium permanganate, sodium nitrate, sodium carbonate and toluene.

Based upon process knowledge and application of the Contained-In Policy, materials from this unit (pipelines, pumps, sumps, etc.) must be managed as RCRA mixed waste (F001/F002/F005).

6.2 SOIL CHARACTERIZATION

A complete soil characterization of the Building 123 area will be conducted as part of the activities outlined in the Building 123 Proposed Action Memorandum. Soil characterization will

include sampling and analysis of the soil beneath and surrounding Building 123. Following removal of the building superstructure, samples will be collected through the slab to determine the necessity for soil remediation. The Building 123 and IHSS 121 SAP has been written to guide characterization activities in these areas. The SAP incorporates a review of existing records to establish the location of potentially contaminated areas and to define sampling protocol. The RFETS Statistical Applications Group will be used to ensure that statistically valid and representative samples of each waste stream are taken. Current planning indicates a need for approximately fifty (50) soil samples beneath the slab of Building 123 and from areas surrounding underground, abandoned OPWLs. Samples will be collected at depths immediately below the pipe to locate any contamination that may have leaked from the lines. Samples will be analyzed for Volatile Organic Compounds (VOCs), Target Analyte List (TAL) Metals, radionuclides, and nitrates. Data quality requirements supporting the analysis effort will conform to criteria established in "Guidance for the Data Quality Objective Process", EPA QA/G-4 (EPA 1994). The Data Quality Objectives are listed in the "Building 123 and IHSS 121 SAP" (See RF/RMRS-97-023).

7.0 CLOSURE PERFORMANCE STANDARD

The closure performance standard specifies that hazardous waste facilities are to be closed in such a way as to (1) minimize the need for further maintenance at the facility, and (2) protect human health and the environment by controlling, minimizing, or eliminating potential releases of hazardous waste to the environment (6 CCR 1007-3, Section 265.111).

For ease in achieving RCRA Closure Performance Standards, that portion of RCRA Unit 40 associated with Building 123 will be divided into two components: above ground piping and below ground piping. These units will be treated independently, however, RCRA Closure will not be completed until both components achieve the RCRA Closure Performance Standards and are certified closed by an independent Colorado Registered Professional Engineer. Any of the three closure options described below may be used to achieve closure. For example, the above ground piping may be closed using the Decontamination Option while the below ground might be closed using Debris Treatment.

To achieve closure of this unit, a selection of one of the following options will be made by DOE/Kaiser-Hill based on characterization data.

7.1 OPTION 1 DECONTAMINATION OF RCRA UNIT 40 ASSOCIATED WITH BUILDING 123

If this option is selected for either the above ground and/or the below ground portions of this unit, closure will consist of decontaminating the pipe with a solution capable of removing the contaminants of concern and testing the final effluent to verify treatment standards. This decontamination will be conducted in accordance with the Rocky Flats Environmental Technology Site RCRA Permit, Part 10 Closure, Section C, Clean Closure by Decontamination.

7 1 1 Closure Performance Standards For Both Above Ground and Below Ground Piping

Closure Performance Standards for decontamination identified in this section include, but are not limited to

- The selection of an appropriate solution for decontamination. Selection of the decontamination solution was based on the types of wastes previously managed in the unit and the contaminants that are present. Water containing sodium carbonate and trisodium phosphate will be used as the decontamination solution,
- Flushing the system with a decontamination solution to remove any remaining trace amounts of acids or bases,
- The final rinsate closure performance standards for internal surfaces of tanks (as described in RFCA Permit, Part X Closures) will be used to evaluate the effectiveness of the decontamination, and
- The final rinsate volume will not exceed 5% of the capacity of the piping system

The above ground and/or below ground portion of this unit will be considered decontaminated and meet Closure Performance Standards if

- All visible waste residuals have been removed and,
- The final rinsate contains concentrations of priority pollutants (identified as being managed in the unit) and heavy metals (268 48 UHC listing) below the Tier 2 action levels as defined in Attachment 5 of the Rocky Flats Compliance Agreement (RFCA) and,
- The pH of the rinsate is between 6 and 9

7 1 2 Rinsate Meets Performance Standards

Above Ground Piping System

Once the rinsate solution meets the performance standards, as identified above and is certified by an independent engineer, all above ground piping will be removed and managed as LLW. This LLW will be stored on-site until it can be disposed in an approved facility (e.g., Nevada Test Site, Envirocare),

Below Ground Piping System

Once the rinsate solution meets the performance standards, as identified above and is certified by an independent engineer, the soil sampling program approved in the 123 PAM will be initiated. Dependent upon the results of the sampling, one of the following actions will occur

- If the soil contamination is above levels defined in Section 261 Subpart C, the pipeline will be removed as part of the soil remediation program

- If the soil contamination is below Section 261 Subpart C levels the lines will be grouted and capped in place

Any remaining soil contaminants will be evaluated as part of the 123 PAM and/or final Record of Decision (ROD) for the facility

7 2 OPTION 2 MANAGED AS HAZARDOUS WASTE WITH NO ON-SITE TREATMENT

7 2 1 Rinsate Fails to Meet Performance Standards, Manage Piping and Rinsate as Hazardous Waste

If this option is selected, the piping system will be managed as RCRA mixed waste with the EPA Waste Codes of F001/F002/ F005 The piping will be removed, size reduced and placed into storage on-site at a TSDFs until shipment to an off-site TSDF for final disposition All hazardous waste and/or mixed wastes generated from this project will be managed in accordance with all applicable state and federal regulations Further description of waste management activities can be found in Section 10

Any rinsate generated from the piping will be sent to Building 374 for treatment

7 3 OPTION 3 DEBRIS TREATMENT OF THE ABOVE AND BELOW GROUND PORTIONS OF RCRA UNIT 40

If this option is selected for either the above ground and/or below ground portions of RCRA Unit 40, the process waste system will be managed as RCRA Hazardous Debris in accordance with 40 CFR 268 45 It is anticipated that this option would be selected only for the above ground portion of this unit

7 3 1 Debris Treatment Closure Performance Standards

Hazardous debris will be considered decontaminated if the process meets the performance standards identified in the Rocky Flats Environmental Technology Site RCRA Permit, Part 10 Closure, Section D, Debris Rule Decontamination Requirements identified in this section include, but are not limited to

- Material must meet the definition of debris found in 40 CFR 268 45,
- Selection of a specified technology as identified in 40 CFR 268 45 Extraction or destruction technologies should be selected over immobilization technologies whenever possible For decontaminating hazardous debris piping, tanks and associated ancillary equipment in Building 123 , chemical extraction using water washing and spraying will be selected Water washing and spraying is defined as application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers Water containing sodium carbonate and trisodium phosphate will be used as decontamination solution,

- A volume of approximately three times the piping/tanks volume of this unit will be used to decontaminated the piping and ensure adequate residence time, and
- Clean surface debris standards as specified in 40 CFR 268.45 must be met

All solid wastes generated from extraction and/or destruction technologies used in the Closure of Building 123 (including rinsates) will be characterized in accordance with 40 CFR 262.11 and managed accordingly. Treatment residuals do not meet the definition of debris.

8.0 SPECIFIC CLOSURE ACTIVITIES

Closure activities will be performed to achieve the objectives of the closure performance standard (See RCRA Permit, Part 10 Closure, Section C-6, "Closure Performance Standards") The activities will be conducted with decontamination and decommissioning activities covered by the Building 123 PAM, which includes remediation of the remainder of the building and abandoned OPWLs under the building. Closure activities will be implemented to ensure the protection of human health and the environment, and waste minimization.

The following sections outline the procedures necessary to close active process waste lines in Building 123, and the active underground line between Building 123 and Valve Vault 18.

8.1 PREPARATION OF ENGINEERING PACKAGES AND WORK PACKAGES

Engineering and work packages will be used to govern the deactivation and decommissioning activities. Engineering designs will be developed for removal and decommissioning activities. The engineering package will define the sequence of activities and methods of size reducing, dismantling, and packaging of the building materials. The packages are being prepared for the Building 123 project in three phases:

- 1) Deactivation of the building,
- 2) Demolition of the building,
- 3) Remediation of underground contamination and/or closure of the underground pipeline as required

8.2 HEALTH AND SAFETY

The RFETS Health and Safety Practices Manual defines general health and safety measures to be followed at the Site. All closure activities will be conducted in accordance with the manual. In addition, a specific Health and Safety Plan has been written for Building 123 D&D activities, which specifically addresses D&D and RCRA Unit 40 closure activities. As Low As Reasonably Achievable (ALARA) principles will be followed regarding personnel radiation dosage and exposures to hazardous materials. Radiation Control Technicians will survey all rooms in the building for radiation, and the pipelines and sumps will be monitored for radiological contamination.

In accordance with Site procedure 1-74000-IWCP, September 4, 1996, Integrated Work Control Program (IWCP) work packages will be prepared to direct and control all work. The packages will be organized similarly to the engineering packages. Each work package will contain a Job Safety Analysis (JSA), which addresses all health and safety issues in detail.

8.3 TANK SYSTEM CLOSURE ACTIVITIES

8.3.1 Closure of System Components

Closure of the above ground and underground lines is dependent upon the amount of contamination (if any) discovered in the final characterization. These units will meet

1. The nnsate standards (Option 1) or
2. Will be removed, characterized and managed in accordance with all applicable rules and regulations (Option 2), or
3. Debris Treatment Standards

The WSRIC system documents that the process waste system in Building 123 has been used as an elementary neutralization unit from 1989 to date. There is little information regarding disposal practices prior to 1989. However, it seems clear that the majority of the discarded liquids were acids and bases. According to the WSRIC data, no listed wastes were disposed in the system since 1989.

Both the above ground and below ground portions of RCRA Unit 40 will be closed following an approved RCRA Closure Plan using one of the following options:

1. The pipelines will be decontaminated using a solution of water, sodium carbonate and trisodium phosphate. The nnsate will be tested to determine if it meets the Tier 2 levels identified in Attachment 5 of RFCA. If the nnsate meets these standards, then the system will be considered closed. If the nnsate is above the standards, the pipe will be removed.
2. The pipelines can be removed and managed as Mixed Waste, or
3. The pipelines can be Debris Treated in accordance with 40 CFR 268.45 and exit RCRA once debris treatment performance standards are met.

If soil contamination is present that requires removal/remediation, the pipeline will be removed at that time as part of the soil remediation.

8.3.2 Closure Scenarios Associated with Soil Contamination

The choice of closure options for the underground pipelines will be influenced by the extent of hazardous contamination, found in soil sampled near the pipeline. One or more sets of activities will be pursued, based upon the amount of RCRA regulated contaminants that are found.

Contamination above RCRA levels, Subpart C, 261 levels

Soil surrounding the pipelines contaminated above RCRA, Subpart C, 261 levels will require thorough decontamination, including removal of the contaminated soil and pipeline. Soil contaminated above RCRA regulated levels will be removed and managed as hazardous waste.

If sampling shows an extensive contamination plume in the soil, other management options such as soil vapor extraction, thermal drying, or on site stabilization may be pursued upon agreement with CDPHE personnel. If any of these options are necessary, an addendum to this closure plan will be submitted.

Contamination below RFCA levels, below Tier 2 levels

If analytical results indicate that the soil is below RFCA Tier 2 levels, the following actions will be taken. Underground pipelines will be filled with grout, capped and left in place.

Contamination below RCRA Subpart C, 261 levels, and above RFCA Tier 2

If analytical results indicate that the soil is below RCRA Subpart C, 261 levels, but above the RFCA Tier 2 levels, the following actions will be taken. Underground lines will be filled with grout, capped, and left in place. Soil will be left undisturbed. As part of the RFCA Plant Closure, a risk assessment will be conducted. Remediation, if required, will then be conducted on the pipelines and soil in accordance with a CDPHE approved RFCA Decision Document.

9 0 DISPOSITION OF WASTE GENERATED DURING CLOSURE

Remediation and closure activities may generate a combination of radioactive, hazardous, and mixed wastes. Contaminated soil and pipeline material are expected to be the major sources of waste. Wastes consisting of plastic, tools, personal protective equipment and other materials associated with demolition and remediation will also be a major source of waste. Contaminated waste will be handled by qualified waste packaging technicians who will work with decontamination specialists and radiation control technicians to identify and segregate the Hazardous or Low Level waste. Waste packaging technicians will package and label the waste, and will arrange for radioactive waste to be certified. Liquid hazardous or radioactive waste generated after the process waste lines are no longer in service will be collected in drums and shipped to Building 374 for processing. Solid waste in drums or boxes will be managed by the Waste Disposal group in an appropriate storage area prior to off-site shipment.

9 1 ESTIMATE OF WASTE VOLUMES TO BE GENERATED

Table 9-1 describes the types, estimated quantities of waste to be generated, and how the waste will be handled and disposed.

Table 9-1 Estimated Volume of Waste to be Generated if Options are Successful

Waste Forms	Waste Type	Disposition of Waste	Estimated Quantity
Option 1 Decontamination			
Process waste pipelines	Low Level	LLW will be recycled at SEG, Oak Ridge, TN or sent to the Nevada Test Site	800 Linear Ft or 100-200 Cubic Ft
Rinsate	Low Level Mixed	WWTU Building 374	200-1000 gallons
Plastic, paper, etc decontamination or LLW handling	Low Level	Nevada Test Site	100-200 Cubic Ft
Remediation of underground pipelines/soils	Low Level Mixed Waste	Approved TSDF	Up to 2100 Cubic Ft (Waste will be generated only if contamination indicates the need to exhume soil/pipeline)
Option 2 Handle as Hazardous Waste			
Process Waste Pipeline	Low Level Mixed Waste	Approved TSDF	800 Linear Ft or 100-200 Cubic Ft
Rinsate	Low Level Mixed Waste	Building 374 WWTU	200-1000 gallons
Plastic, paper, etc that comes in direct contact with listed waste	Low Level Mixed Waste	Approved TSDF	< 100 Cubic Ft
Remediation of underground pipelines/soil	Low Level Mixed Waste	Approved TSDF	Up to 2100 Cubic Ft (Waste will be generated only if contamination indicates need to exhume pipeline)
Option 3 Debris Treatment			
Process waste pipelines	Low Level Waste	Nevada Test Site	800 Linear Ft or 100-200 Cubic Ft
Plastic, paper, etc coming in to direct contact with listed waste	Low Level Mixed Waste	Mixed Waste will be stored on-site in a TSDF awaiting shipment to Envirocare or another approved TSDF	Up to 2100 Cubic Ft (Waste will be generated only if contamination indicates need to exhume pipeline)
Remediation of contaminated soil	Low Level Mixed Waste		

10.0 RECORD KEEPING

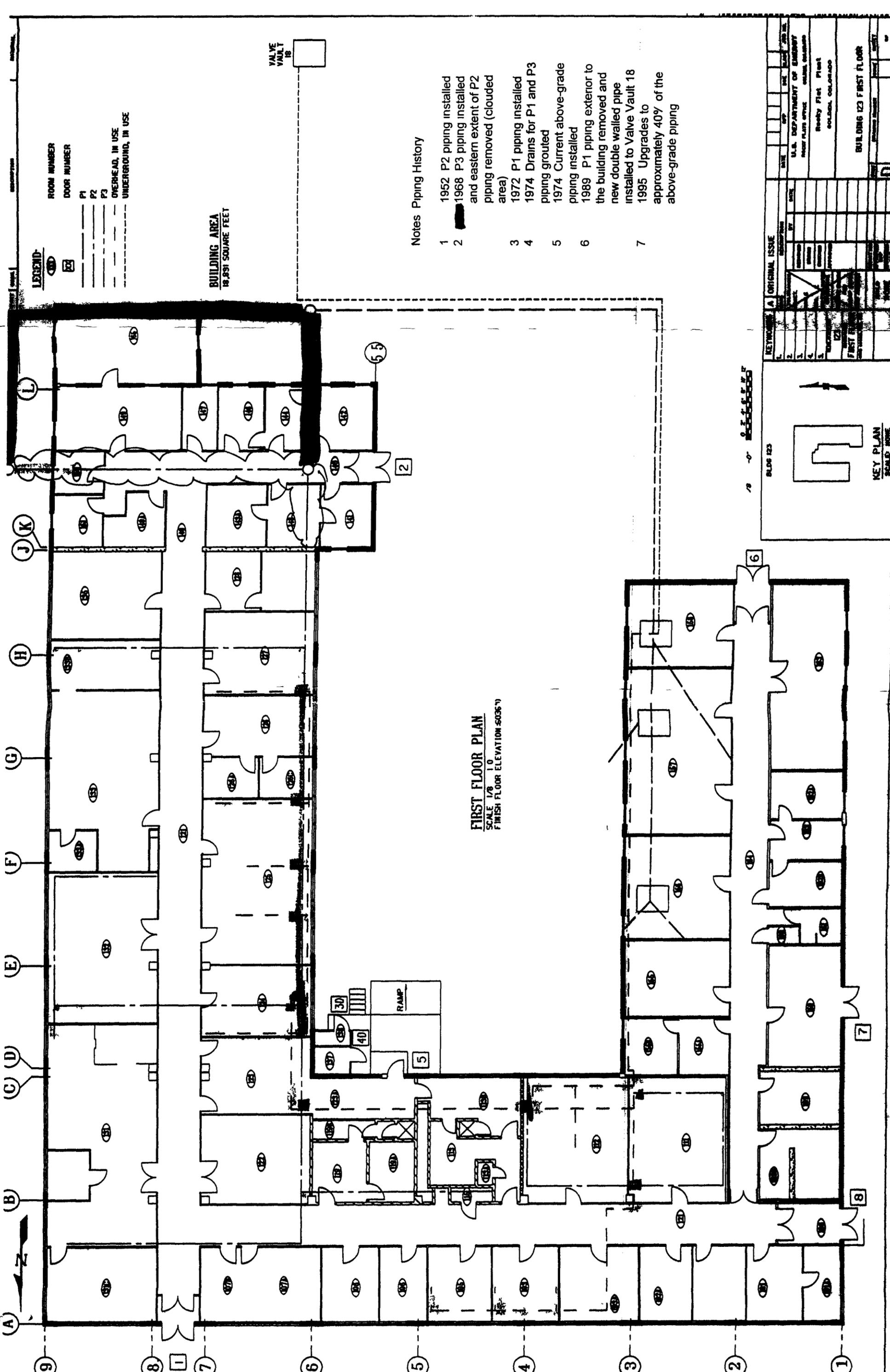
The following closure documentation will be maintained

- A field logbook indicating the date, number, and type of sampling activities
- Analytical results
- Records of actions taken to decontaminate equipment or structures
- Work control packages developed to govern closure activities

Certification and other documentation indicating that closure was conducted in accordance with the closure plan

Attachment 1

First Floor Plan



LEGEND

ROOM NUMBER
 DOOR NUMBER
 P1
 P2
 P3
 OVERHEAD, IN USE
 UNDERGROUND, IN USE

BUILDING AREA
 18,891 SQUARE FEET

Notes Piping History

- 1 1952 P2 piping installed
- 2 1968 P3 piping installed and eastern extent of P2 piping removed (clouded area)
- 3 1972 P1 piping installed
- 4 1974 Drains for P1 and P3 piping grouted
- 5 1974 Current above-grade piping installed
- 6 1989 P1 piping exterior to the building removed and new double walled pipe installed to Valve Vault 18
- 7 1995 Upgrades to approximately 40% of the above-grade piping

FIRST FLOOR PLAN
 SCALE 1/8" = 1'-0"
 FINISH FLOOR ELEVATION 5036.71

KEY PLAN
 SCALED NONE

BLDG 123

REVISIONS

NO.	DATE	BY	DESCRIPTION
1			ORIGINAL ISSUE
2			
3			
4			
5			

U.S. DEPARTMENT OF ENERGY
 POWER PLANTS OFFICE
 ROCKY FLAT PLANT
 GOLDEN, COLORADO

BUILDING 123 FIRST FLOOR

COMPUTER GENERATED - 8.5.79 P3 8887-110851