

# QUARTERLY UPDATE

FOR JANUARY 1, 1995 THROUGH  
MARCH 31, 1995

# HISTORICAL RELEASE REPORT (HRR)

**PREPARED BY**

**ENVIRONMENTAL RESTORATION  
ENVIRONMENTAL OPERATIONS MANAGEMENT**

**EG&G ROCKY FLATS, INC.**

**APRIL 1995**

*April 1995*

*HRR Eleventh Quarterly Update*

**ADMIN RECORD**

A-SW-001560

# QUARTERLY UPDATE

FOR JANUARY 1, 1995 THROUGH  
MARCH 31, 1995

## HISTORICAL RELEASE REPORT (HRR)

PREPARED BY

ENVIRONMENTAL RESTORATION  
ENVIRONMENTAL OPERATIONS MANAGEMENT

EG&G ROCKY FLATS, INC.

APRIL 1995

**HRR QUARTERLY UPDATE  
AGENCY ACCEPTANCE FORM**

**HRR QUARTERLY UPDATE 11**

The recommendations of the Department of Energy (DOE) with regard to the need for future actions, or the lack of the need for future actions, are included in each PAC narrative description included in this quarterly update. Any PACs for which a decision is deferred will be addressed in future HRR quarterly updates.

Exceptions to the recommended actions should be noted below or attach comments to this form as needed:

---



---



---

Please provide comments and/or acceptance within two weeks from receipt of quarterly update submittal.

DOE Signature	CDH Signature	EPA Signature
	<input type="checkbox"/> CDH agrees with recommendations  <input type="checkbox"/> CDH disagrees with recommendations; see comments	<input type="checkbox"/> EPA agrees with recommendations  <input type="checkbox"/> EPA disagrees with recommendations; see comments
DOE Concurrence	CDH Signature and Position	EPA Signature and Position

## TABLE OF CONTENTS

DESCRIPTION	PAGE
<b>HRR QUARTERLY UPDATE AGENCY ACCEPTANCE FORM</b> .....	<b>2</b>
<b>1.0 INTRODUCTION</b> .....	<b>4</b>
<b>2.0 NEW PAC NARRATIVES</b> .....	<b>6</b>
PAC REFERENCE NUMBER: 900-1317 .....	7
(Soil Release from Wooden Crate in 964 Laydown Yard)	
PAC REFERENCE NUMBER: 700-1113 .....	9
(Water Released from the 207C Solar Evaporation Pond)	
<b>3.0 REVISED PAC NARRATIVES</b> .....	<b>11</b>
PAC REFERENCE NUMBER: 900-1315 .....	12
(Tanker Truck Release on East Patrol Road, North of Spruce Ave.)	
<b>4.0 APPENDIX 1</b> .....	<b>16</b>
(Listing of PACs Identified Since the June 1992 Historical Release Report)	
<b>5.0 APPENDIX 2</b> .....	<b>21</b>
(Listing of Original PACs Submitted in the June 1992 Historical Release Report)	
<b>6.0 REVISED IHSS AND PAC MAPS</b> .....	<b>26</b>

## 1.0 INTRODUCTION

This Eleventh Quarterly Update to the Historical Release Report (HRR) provides a variety of information pertaining to spills, releases, or findings of contaminants at the Rocky Flats Environmental Technology Site (RFETS). Attachment 2, Section I.B.3 to the Interagency Agreement (IAG) dated January 1991 states that the Department of Energy (DOE) shall amend the Historical Release Report every three months to include newly identified or suspected releases for which DOE has notified the Environmental Protection Agency (EPA) and Colorado Department of Public Health & Environment (CDPH&E). Spills, releases or findings which require reporting in this report are identified as Potential Areas of Concern (PACs). PAC writeups include Department of Energy, Rocky Flats Field Office (DOE, RFFO) recommendations for further action required or no further action required based upon all available process knowledge, analytical data, or formally conducted personal interviews. The Agency Acceptance Form on the second page of this report has been included in the past four quarterly reports to reach concurrence or non-concurrence on DOE RFFO recommendations from the regulatory agencies for action or no action acceptance.

Information for this quarterly report is structured as follows:

- Releases to the environment identified during January 1, 1995, through March 31, 1995;
- Revisions to PAC narratives;
- An up to-date Individual Hazardous Substance Site (IHSS) map; and
- An up-to-date Potential Area of Concern (PAC) map.
- Listing of PACs identified since the June 1992 HRR per Attachment 2, Section I.B.3 of the Interagency Agreement (IAG) - Quarterly Notification (see Appendix 1);
- Listing of all PACs identified in the June 1992 HRR (see Appendix 2);

Appendix 1 provides a list of all PACs identified since the June 1992 HRR. It also provides a cross-reference for the Operable Unit (OU) in which the incident occurred, IHSS numbers for spills occurring within an IHSS, a Resource Conservation and Recovery Act (RCRA) Contingency Plan Implementation Report (CPIR) cross-reference number and the number of the quarterly update in which the PAC was originally identified.

Appendix 2 provides a listing of all PACs referenced in the June 1992 version of the Historical Release Report (HRR).

Revisions to PAC narratives are reserved for Section 3.0 of this document. Section 3.0 is used to modify past narratives based on additional information which becomes available after the reporting process has begun. Typically, additional information consists of validated analytical data from sampling or additional sample results from a later collection event.

Up-to-date copies of IHSS and PAC maps are included in Section 5.0. The IHSS map reflects the most current boundary location of IHSSs based on work to date at the various Operable Units. The PAC map includes all PACs identified to date, as well as Under Building Contamination (UBC) sites. Up-to-date maps will continue to be issued with each quarterly report. These maps are made available to plant organizations requiring the most accurate and current information.

**SECTION 2.0**

**NEW PAC NARRATIVES**

**(PACS IDENTIFIED DURING JANUARY 1, 1995, THROUGH MARCH 31, 1995)**

PAC REFERENCE NUMBER: 900-1317

IHSS Number: 176

Unit Name: Soil Release from Wooden Crate in 964 Laydown Yard

CPIR No.: 95-001

Approx. Location: N750,500; E2,085,500

Date(s) of Operation or Occurrence

January 18, 1995

Description of Operation or Occurrence

At approximately 6:00 p.m. on January 18, 1995, carpenters were attempting to reattach a lid from a wooden half crate located south of Building 964 and within IHSS 900-176. The lid was believed to have blown off the previous day during a period of high winds. While working on the crate, one of the structural sides fell apart inadvertently exposing the plastic liner and releasing approximately 1 pound of coarse gravel and residual soil material to the ground. The only information available regarding the origin of the contents were the words "oil and soil" handwritten on the plastic liner. The half crate associated with this release and another half crate staged adjacent to it were apparently placed within a Radiologically Controlled Area (RCA) due to the unknown nature of the contents as part of an Accelerated Cleanup Project. There were no identifying markings on either crate except for the dates of manufacture of 1989 and 1990.

Physical/Chemical Description of Constituents Released

The material released from the wooden half crate was of unknown origin and may have been associated with a past spill cleanup response due to the markings "oil and soil" handwritten on the plastic liner of one of the crates. Approximately one pound of coarse gravel (<1/2 inch diameter) and residual soil was released to the ground.

At present, IHSS 900-176 (the 964 Laydown Yard) is being investigated as part of Operable Unit 10 due to the area receiving windblown radioactive nitrate spray from the solar evaporation ponds located immediately upwind. Historically, the primary use of the 964 yard (also referred to as the "Bone Yard") has been for storage of contractor materials and on one occasion in 1985, temporary storage of waste oils contaminated with volatile organic compounds and metals. Visual evidence of old spills and leakage have been documented since 1985.

### Response to Operation or Occurrence

Once the release was identified, a tarp was placed over the open crate and weighted down with rocks until the spilled soil and gravel could be placed back into the crate. On January 19, 1995, the spilled material was cleaned up and samples were collected from the area of the release to complete a waste determination and provide cleanup verification. Additional collection of samples were required from the crate on January 24, 1995 due to the insufficient amount of actual soil collected from the first sampling event (mostly gravel was released) for analysis. Attempts were made to repair the plastic liner with tape and resecure the tarps. A RCRA 90 day storage area was immediately established at the release site until a waste determination could be made. Using all available preliminary TCLP data, a waste determination concluded that the released material was non hazardous on March 1, 1995. The crates temporarily remain in the RCA (in their present condition) due to elevated radiological contamination (9.1 pCi/gram Pu 238/240) and are scheduled to be repackaged as non hazardous low level waste. They will be transferred to building 664 for storage after repackaging operations are completed.

### Fate of Constituents Released to Environment

Preliminary analytical results for the soil and gravel in the area of the release indicate that the level of detected toxic metals are well below the Toxicity Characteristic Leaching Procedure (TCLP) limits. Volatile organic compounds such as acetone and methyl ethyl ketone (MEK) were detected in the low part per billion (ppb) ranges for samples collected in the spill area but not detected in samples collected from within the crates. These organic compounds were detected well below the Practical Quantitation Limits (PQLs) of the laboratory equipment and are commonly seen as laboratory contaminants. Preliminary radiological (isotope specific) analysis indicate elevated radiological contamination. The final analytical results for all samples taken and waste characterization will be included in Section 3.0 - Revised PAC Narratives upon validation of the data.

### Action/No-Action Recommendation

This PAC does not warrant further investigation due to the small amount of material (one pound or less) released to the environment, the immediate cleanup response, and the preliminary analytical data strongly suggesting that the spilled material is non hazardous. IHSS 900-176 is currently under investigation for volatile organic, inorganic, and radiological contamination.

### Comments

If the validated analytical data does not confirm that the release was adequately cleaned up, a soil response plan will be submitted to the Colorado Department of Public Health & the Environment.

PAC REFERENCE NUMBER: 700-1113

IHSS Number: 101

Unit Name: Water Released from the 207C Solar Evaporation Pond

CPIR No.: 95-002

Approx. Location: N750,529; E2,085,230

Date(s) of Operation or Occurrence:

February 2, 1995

Description of Operation or Occurrence

On February 2, 1995, plant personnel proceeded to pump snowmelt and rinse water that had accumulated in Solar Evaporation Pond 207C to Building 374 for treatment after the pond had been emptied of contaminated sludge and water. The surface of the pond was being prepared for a pine tar coating process scheduled to begin later that day and the process required a dry surface for application. Between 9:30 am and 10:00 am immediately after starting the small pump, a pinhole sized leak was noticed in the pressurized hose. By the time the worker could turn off the pump (approximately six seconds later) the pinhole had expanded to approximately two centimeters. The release occurred at the southeast corner of the pond within IHSS 700-101 and in a Radiologically Controlled Area (RCA). An estimated five gallons of low level hazardous waste water was released back into the pond from where it was being pumped and on to soil across a bermed area outside of the pond (due to strong winds). Several workers were sprayed during the release from the pressurized hose.

Physical/Chemical Description of Constituents Released

The water released from this occurrence consisted of snowmelt and rinse water which had accumulated in the pond. The rinse water was used during the phase 1 environmental remediation plan to empty the solar evaporation ponds and prepare the pond liner for a coating process. The solar evaporation pond was previously used to hold RCRA regulated hazardous waste that included listed hazardous wastes from non-specific sources, such as spent halogenated solvents and electroplating waste. The 207C pond also received radioactive waste from process waste lines. Samples of the liquid remaining in the pond were collected on February 2 and 3, 1995, to determine the level of hazardous waste constituents present. Due to the historical nature of how the pond was used, the following EPA waste codes have been assigned to the water: F001, F002, F003, F005, F006, F007, F009, and F039.

### Response to Operation or Occurrence

The liquid released to the pond and the liquid remaining in the hose were drained back into the sump area located in the northeast corner of the pond. The water was later pumped to Building 374 for treatment on February 6, 1995. The two employees who were sprayed by the liquid immediately removed their protective clothing and showered for several minutes to remove any possible contamination. No radioactive contamination was detected on the workers when they were monitored. The wetted soil on the southeast berm was visually inspected and estimated to be 1.5 X 4 feet in size. Approximately 15 pounds of soil was removed from the wetted area on February 2, 1995 and is currently being managed as low level mixed hazardous waste. Samples of the liquid remaining in the pond were collected that afternoon and again on February 3, 1995, to determine the level of hazardous waste constituents present. Operations personnel removed the hose from service and replaced it with a new hose on February 3, 1995.

### Fate of Constituents Released to Environment

Preliminary analytical results for select metals and volatile organic compounds indicate that levels of toxic constituents are either well below the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limits or not detectable. Soil in this area has already been determined to be radiologically contaminated. The pH of the liquid remaining in the pond was 9.96. Further sampling of the remaining soil has not been initiated due to the known nature and extent of contamination in this area as documented in the Operable Unit (OU) 4 Remedial Investigation/RCRA Facility Investigation. The area impacted by the release is within the area to be remediated as identified in the May 27, 1994, draft OU4 Solar Evaporation Ponds Interim Measure Interim Remedial Action Environmental Assessment Decision Document. Based upon the quantity of the material released, the quantity of soil removed, and the proposed plan to remediate the affected area, there are no immediate plans to further sample the soil.

Validated analytical data will be documented in the OU-4 Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) Report and transmitted to the Environmental Protection Agency (EPA) and the Colorado Department of Public Health & Environment (CDPH&E) under the normal Operable Unit 4 milestone schedule.

### Action/No-Action Recommendation

This area is actively being addressed within the Operable Unit 4 characterization/remediation schedule. Further action is not required.

### Comments

None.

**SECTION 3.0**  
**REVISED PAC NARRATIVES**

**PAC REFERENCE NUMBER: 900-1315**

**This writeup is an amendment and supersedes all previously reported information.**

IHSS Number: NA

Unit Name: Tanker Truck Release on East Patrol Road, North of Spruce Ave.

CPIR No.: 94-013

Approx. Location: N750,500; E2,082,500

Date(s) of Operation or Occurrence

December 13, 1994

Description of Operation or Occurrence

At Approximately 11:40 a.m., December 13, 1994 during transport operations of Solar Evaporation Pond decant waste water, approximately 10 gallons of hazardous waste was released to the environment. A tanker truck was transporting the decant water from the 750 Storage Pad (RCRA Unit 25) where Solar Evaporation Pond sludges are separated through a settling process to Building 374 feed storage tanks (Tank 231 A and B) for subsequent treatment at Building 374. The truck driver immediately stopped when he noticed that liquid was splashing from the vent/blowdown valve which was inadvertently left open during the filling process. It was estimated that approximately 10 gallons of hazardous waste was released to the asphalt and soil. The released liquid contacted two sections of asphalt road surface and one section of soil (approximately 1 ft. by 100 ft. in dimension). The release to asphalt was north of Spruce Avenue on the East Patrol Road. Soil samples were collected from an area northeast of building 964 on December 13, 1994 (See Tables 1 and 2).

Physical/Chemical Description of Constituents Released

The material released from the tanker was Solar Evaporation Pond decant water which originated from the 207-A and 207-B Ponds. The most common characteristic of the waste released to the solar ponds is high concentrations of nitrate. Historical records document that the ponds frequently received untreated process waste as well as treated process waste and contaminated scrap metals. EPA waste codes assigned to the sludge and decant water are determined from backlog recharacterization records and include F001, F002, F003, F005, F006, F007, F009 and F039.

### Response to Operation or Occurrence

Upon discovery of the release, Radiological Protection immediately responded and performed surveys in accordance with plant procedures concerning response to a release of mixed waste. The vent/blow down valve was closed to prevent further release of the decant water and decontamination procedures began immediately to remediate the spilled liquid both on the tanker and asphalt surfaces. A triple rinse was performed on the asphalt surfaces using a detergent solution followed by Wet-Vac vacuum procedures. The decant liquid spilled on the soil was excavated to a depth of 2 inches (until no evidence of wetted soil could be seen) and containerized in wooden crates. Approximately 4560 pounds of soil were removed and managed as RCRA regulated hazardous waste at RCRA Unit 25 (750 Pad). Two surficial soil samples were collected from the area on December 13, 1994. One composite sample was collected after the wetted soil was containerized to verify that adequate cleanup was performed and another was collected adjacent to the spill area to determine if any pre-existing contamination was present due to the close proximity of IHSS 900-165. In addition, samples of decant water were collected from the tanker. The preliminary sweep analysis for select metals and volatile organics indicate that levels of toxic constituents are well below Toxicity Characteristic Leaching Procedure (TCLP) regulatory limits. The validated analytical results are presented in Tables 1 and 2.

### Fate of Constituents Released to Environment

Due to the condition of the soil (i.e. hard packed) and the prompt removal of liquid and wetted soil, hazards to human health or the environment were mitigated. The pH of the liquid released was 9.14. Based on the results of the samples taken of the soil remaining in the wetted area after the contaminated soil was removed, the levels of contaminants in the remaining soil are either below the analytical detection limits or equal to the level in the adjacent soil; therefore, no further remedial actions are planned.

### Action/No-Action Recommendation

Based upon cleanup documentation, validated analytical data and radiological surveys of the area, this site does not require further action.

### Comments

This PAC writeup includes validated analytical data unavailable when first reported in the 10th Quarterly Update.

TABLE 1  
SAMPLE RESULTS - METALS BY ICPEs

Analyte	Total Metals In Released Liquid		TCLP Leachate from Soil Remaining		TCLP Leachate from Soil Adjacent		Toxicity Characteristic Regulatory Level
Arsenic	0.088	U	0.088	U	0.088	U	5.0
Barium	0.116	B A	0.511	U A	0.534	U A	100.0
Cadmium	0.004	B	0.014		0.047		1.0
Chromium	0.009	B	0.005	B	0.008	B	5.0
Lead	0.041	U A	0.041	U	0.041	U	5.0
Selenium	0.057	B	0.044	U	0.044	U	1.0
Silver	0.003	U	0.003	U	0.003	U	5.0

Results are in mg/L

U = The analyze concentration (before dilution factors were applied) was below the Instrument Detection Limit (IDL). The number in the table preceding "U" is the IDL for this sample aliquot.

B = The absolute value of the analyzed result (before dilution factors were applied) is above the IDL but is less than the Contract Required Detection Limit (CRDL).

A = The data for the liquid sample is validated except that the barium and lead data is only acceptable. The barium and lead results are estimated because the matrix spike recovery was between 30% and 74%.

The data for the soil samples are validated except for the barium data is only acceptable. The barium results are estimated and non-detected because the sample results were less than 5 times the blank contaminant level.

SAMPLE RESULTS - TAL VOLATILE ORGANICS BY GC/MS

Analyte	Released Liquid		Soil Remaining		Soil Adjacent		Toxicity Characteristic Regulatory Level
Chloroethane	0.100	U	0.100	U	0.100	U	N/A
Bromomethane	0.100	U	0.100	U	0.100	U	N/A
Vinyl Chloride	0.100	U	0.100	U	0.100	U	0.2
Chloroethane	0.100	U	0.100	U	0.100	U	N/A
Methylene Chloride	0.050	U	0.050	U	0.050	U	N/A
Acetone	0.100	U A	0.100	U A	0.100	U A	N/A
Carbon Disulfide	0.050	U	0.050	U	0.050	U	N/A
1,1-Dichloroethylene	0.050	U	0.050	U	0.050	U	0.7
1,1-Dichloroethane	0.050	U	0.050	U	0.050	U	N/A
1,2-Dichloroethane (total)	0.050	U	0.050	U	0.050	U	N/A
Chloroform	0.050	U	0.050	U	0.050	U	5.0
1,2-Dichlorobenzene	0.050	U	0.050	U	0.050	U	0.5
2-Butanone (MEK)	0.100	U A	0.100	U A	0.100	U A	200.0
1,1,1-Trichloroethane	0.050	U	0.050	U	0.050	U	N/A
Carbon Tetrachloride	0.050	U	0.050	U	0.050	U	0.5
Bromochloromethane	0.050	U	0.050	U	0.050	U	N/A
1,2-Dichloropropane	0.050	U	0.050	U	0.050	U	N/A
cis-1,3-Dichloropropene	0.050	U	0.050	U	0.050	U	N/A
Trichloroethylene (TCE)	0.050	U	0.050	U	0.050	U	0.5
Dibromochloromethane	0.050	U	0.050	U	0.050	U	N/A
1,1,2-Trichloroethane	0.050	U	0.050	U	0.050	U	N/A
Benzene	0.050	U	0.050	U	0.050	U	0.5
trans-1,3-Dichloropropene	0.050	U	0.050	U	0.050	U	N/A
Bromoform	0.050	U	0.050	U	0.050	U	N/A
4-Methyl-2-Pentanone (MIBK)	0.100	U	0.100	U	0.100	U	N/A
2-Hexanone	0.100	U	0.100	U	0.100	U	N/A
Tetrachloroethylene (PCE)	0.050	U	0.050	U	0.050	U	0.7
1,1,2,2-Tetrachloroethane	0.050	U	0.050	U	0.050	U	N/A
Toluene	0.050	U	0.050	U	0.050	U	N/A
Chlorobenzene	0.050	U	0.050	U	0.050	U	100.0
Ethylbenzene	0.005	U	0.050	U	0.050	U	N/A
Styrene	0.050	U	0.050	U	0.050	U	N/A
Xylene (Total)	0.050	U	0.050	U	0.050	U	N/A

Results are in mg/L (ppm)

U = Compound not found. The number in the table preceding the "U" is the Practical Quantitation Limit (PQL) for this sample aliquot.

B = Compound found, but is also present in the daily method blank.

J = Compound found, but quantity is below PQL. Quantitation is estimated.

A = Data is acceptable. As a result of blank contamination, the positive results for acetone and 2-butanone in the liquid and soil samples are reported as undetected and estimated. All other data was validated.

Note: All values presented in Table 2 (above) are reported at the Practical Quantitation Limit.

**SECTION 4.0**

**APPENDIX 1**

**APPENDIX 1  
NEW PACS IDENTIFIED IN QUARTERLY UPDATES**

IHSS <sup>1</sup>	OU <sup>1</sup>	CPIR Cross- Reference <sup>2</sup>	PAC	PAC NAME <sup>3</sup>	Original Quarterly Update #
142.6	6	NA	NE-1404	Diesel Spill at Pond B-2 Spillway	2
NA	2	NA	NE-1405	Diesel Fuel Spill at Field Treatability Unit ( <i>formerly NE- 1404</i> )	3
NA	4	NA	NE-1406	771 Hillside Sludge Release	4
NA	2	93-002	NE-1407	OU 2 Treatment Facility	4
NA	2	93-005	NE-1408	OU 2 Test Well ( <i>formerly NE- 1406</i> )	4
NA	4	93-007	NE-1409	Modular Tanks and 910 Treatment System Spill ( <i>formerly 000-503</i> )	5
NA	2	NA	NE-1410	Diesel Fuel Spill at Field Treatability Unit	7
NA	2	NA	NE-1411	Diesel Fuel Overflowed from Tanker at OU 2 Field Treatability Unit	7
NA	2	NA	NE-1412	Trench T-12 Located in OU-2 East Trenches	10
NA	2	NA	NE-1413	Trench T-13 Located in OU-2 East Trenches	10
NA	10	NA	NW-1500	Diesel Spill at PU&D Yard ( <i>formerly NW-175</i> )	2
NA	10	NA	NW-1501	Asbestos Release at PU&D Yard ( <i>formerly NW-176</i> )	2
114	7	92-021	NW-1502	Improper Disposal of Diesel Contaminated Material at Landfill ( <i>formerly NW-177</i> )	2

**APPENDIX 1 (Continued)**  
**NEW PACS IDENTIFIED IN QUARTERLY UPDATES**

IHSS <sup>1</sup>	OU <sup>1</sup>	CPIR Cross-Reference <sup>2</sup>	PAC	PAC NAME <sup>3</sup>	Original Quarterly Update #
114	7	92-004	NW-1503	Improper Disposal of Fuel Contaminated Material at Landfill	1
114	7	94-002	NW-1504	Improper Disposal of Thorosilane Contaminated Material at Landfill	7
NA	5	NA	SW-1701	Recently Identified Ash Pit	9
NA	5	NA	SW-1702	Recently Identified Ash Pit	9
NA	NA	94-005	000-503	Solar Pond Water Spill Along Central Avenue	7
NA	NA	93-003	100-613	Asphalt Surface in Lay Down Yard North of Building 130 <i>(formerly identified as 000-501)</i>	4
NA	NA	93-003	300-711	Ni-Cad Battery Spill Outside of Building 373	1
NA	NA	92-002	300-712	1/2 gal Antifreeze Spilled by Street Sweeper Outside of Building 373	1
NA	NA	94-006	300-713	Caustic Spill North of Building 331	8
NA	NA	94-012	300-714	Laundry Waste Water Spill From Tank T-803, North of Building 374	10
NA	NA	NA	400-811	Transformer 443-2, Bldg. 443	2

**APPENDIX 1 (Continued)**  
**NEW PACS IDENTIFIED IN QUARTERLY UPDATES**

IHSS <sup>1</sup>	OU <sup>1</sup>	CPIR Cross- Reference <sup>2</sup>	PAC	PAC NAME <sup>3</sup>	Original Quarterly Update #
NA	NA	93-009	400-812	Tank T-2 Spill in Building 460	6
NA	NA	94-001	400-813	RCRA Tank Leak in Building 460	7
NA	NA	94-007	400-814	Air Conditioner Compressor Release, Building 444 Roof	8
NA	NA	94-008	400-815	RCRA Tank Leak in Building 460	8
NA	NA	93-004	500-906	Asphalt Surface Near Building 559	4
172	13	94-009	500-907	Tanker Truck Release of Hazardous Waste From Tank 231B	9
52, 157.1, 172	12	NA	600-1004	Central Avenue Ditch Cleaning Incident (formerly identified as 400-820)	6
NA	NA	NA	600-1005	Former Pesticide Storage Area	7
101	4	95-002	700-1113	Water Released from the 207C Solar Evaporation Pond	11
NA	NA	92-005	800-1212	Building 866 Sump Spill	5
NA	NA	NA	900-1308	Gasoline Spill Outside of Building 980	6
NA	2	93-010	900-1309	OU 2 Field Treatability Unit Spill	6

**APPENDIX 1 (Continued)**  
**NEW PACS IDENTIFIED IN QUARTERLY UPDATES**

NA	NA	92-023	900-1310	ITS Water Spill (formerly identified as 000-502)	2
NA	NA	NA	900-1311	Septic Tank East of Building 991	7
NA	2	94-004	900-1312	OU-2 Water Spill	7
192	16	NA	900-1313	Seep Area Near OU-2 Influent	9
101	4	94-010	900-1314	Solar Evaporation Pond 207B Sludge Release	9
NA	NA	94-013	900-1315	Tanker Truck Release on East Patrol Road, North of Spruce Ave.	11
NA	NA	NA	900-1316	Elevated Chromium (total) Identified During Geotechnical Drilling	10
176	10	95-001	900-1317	Soil Released from Wooden Crate in 964 Laydown Yard	11

<sup>1</sup>NA = Not applicable. Not all PACs are located in Individual Hazardous Substance Sites (IHSSs) or Operable Units (OUs). Likewise, not all PACs are identified in RCRA Contingency Plan Implementation Reports (CPIRs).

<sup>2</sup>RCRA Contingency Plan Implementation Reports (CPIRs) identified during the Eighth Quarter included CPIRs 94-006 through 94-008. Each incident involved a release to the environment and is therefore identified as a PAC.

<sup>3</sup>Several PAC numbers have been revised to reflect a more accurate location on the PAC map. Former PAC numbers are identified in parentheses within italics.

**SECTION 5.0**

**APPENDIX 2**

**APPENDIX 2  
ORIGINAL POTENTIAL AREAS OF CONCERN  
SUBMITTED IN HISTORICAL RELEASE REPORT - JUNE 1992**

IHSS NO.	OU NO.	PAC NO.	PAC NAME	PAGE
<b>NORTHEAST BUFFER ZONE</b>				
NA <sup>2</sup>	NA	NE-1400	Tear Gas Powder Release	NE-36
NA	NA	NE-1401	NE Buffer Zone Gas Line Break	NE-37
NA	NA	NE-1402	East Inner Gate PCB Spill	NE-38
NA	NA	NE-1403	Gasoline Spill - Building 920 Guard Post	NE-39
<b>NORTHWEST BUFFER ZONE</b>				
NA	NA	SE-1600	Pond 7 - Steam Condensate Releases	SE-10
NA	NA	SE-1601	Pond 8 - Cooling Tower Discharge Releases	SE-13
<b>SOUTHWEST BUFFER ZONE</b>				
NA	NA	SW-1700	Fuel Spill into Woman Creek Drainage	SW-15
<b>000 AREA</b>				
NA	NA	000-500	Sanitary Sewer System	000-49
NA	NA	000-501	Roadway Spraying	000-60
<b>100 AREA</b>				
NA	NA	100-600	Mercury Spill - Valve Vault 124-B, Building 124	100-8
NA	NA	100-601	Building 123 Phosphoric Acid Spill	100-10
NA	NA	100-602	Building 123 Process Waste Line Break	100-11
NA	NA	100-603	Building 123 Bioassay Waste Spill	100-13
NA	NA	100-604	T130 Complex Sewer Line Leaks	100-15
NA	NA	100-605	Building 115 Hydraulic Oil Spill	100-16
NA	NA	100-606	Building 125 TCE Spill	100-17
NA	NA	100-607	Building 111 Transformer PCB Leak	100-18
NA	NA	100-608	Building 131 Transformer Leak	100-20
NA	NA	100-609	Building 121 Security Incinerator	100-21
NA	NA	100-610	Asbestos Release - Building 123	100-22
NA	NA	100-611	Building 123 Scrubber Solution Spill	100-23
NA	NA	100-612	Battery Solution Spill - Building 119	100-25
<b>300 AREA</b>				
NA	NA	300-700	Scrap Roofing Disposal	300-25

APPENDIX 2 (continued)

IHSS NO.	OU NO.	PAC NO.	PAC NAME	PAGE
NA	NA	300-701	Sulfuric Acid Spill - Building 371	300-26
NA	NA	300-702	Pesticide Shed	300-27
NA	NA	300-703	Building 331 North Area	300-28
NA	NA	300-704	Roof Fire, Building 381	300-29
NA	NA	300-705	Potassium Hydroxide Spill North of Building 374	300-30
NA	NA	300-706	Evaporator Tanks North of Building 374	300-31
NA	NA	300-707	Sanitizer Spill	300-33
NA	NA	300-708	Transformers North of Building 371	300-34
NA	NA	300-709	Transformer Leak 334-1	300-35
NA	NA	300-710	Gasoline Spill North of Building 331	300-36
400 AREA				
NA	NA	400-800	Transformer 443-1	400-40
NA	NA	400-801	Transformer, Roof of Building 447	400-41
NA	NA	400-802	Storage Area, South of Building 334	400-42
NA	NA	400-803	Miscellaneous Dumping, Building 460 Storm Drain	400-44
NA	NA	400-804	Road North of Building 460	400-45
NA	NA	400-805	Building 443 Tank #9 Leak	400-46
NA	NA	400-806	Catalyst Spill, Building 440	400-47
NA	NA	400-807	Sandblasting Area	400-48
NA	NA	400-808	Vacuum Pump Leak - Building 442	400-49
NA	NA	400-809	Oil Leak - 446 Guard Post	400-51
NA	NA	400-810	Beryllium Fire - Building 444	400-52
500 AREA				
NA	NA	500-900	Transformer Leak - 515/516	500-15
NA	NA	500-901	Transformer Leak - 555	500-17
NA	NA	500-902	Transformer Leak - 559	500-18
NA	NA	500-903	RCRA Storage Unit #1	500-19
NA	NA	500-904	Transformer Leak - 223-1/223-2	500-20
NA	NA	500-905	Transformer Leak - 558-1	500-22

**APPENDIX 2 (continued)**

IHSS NO.	OU NO.	PAC NO.	PAC NAME	PAGE
<b>600 AREA</b>				
NA	NA	600-1000	Transformer Storage Building 662	600-18
NA	NA	600-1001	Temporary Waste Storage Building 663	600-20
NA	NA	600-1002	Transformer Storage - West of Building 666	600-24
NA	NA	600-1003	Transformers North and South of 661-675 Substation	600-25
<b>700 AREA</b>				
NA	NA	700-1100	French Drain North of Building 776/777	700-76
NA	NA	700-1101	Laundry Tank Overflow - Building 732	700-77
NA	NA	700-1102	Transformer Leak - 776-4	700-78
NA	NA	700-1103	Leaking Transformers - Building 707	700-80
NA	NA	700-1104	Leaking Transformers - Building 708	700-82
NA	NA	700-1105	Transformer Leak - 779-1/779-2	700-83
NA	NA	700-1106	Process Waste Spill - Portal 1	700-84
NA	NA	700-1107	Compressor Waste Oil Spill - Building 776	700-86
NA	NA	700-1108	771/774 Footing Drain Pond	700-87
NA	NA	700-1109	Uranium Incident - Building 778	700-90
NA	NA	700-1110	Nickel Carbonyl Burial West of Building 771	700-91
NA	NA	700-1111	Leaking Transformer - Building 750	700-92
NA	NA	700-1112	Leaking Transformer - 776-5	700-93
<b>800 AREA</b>				
NA	NA	800-1200	Valve Vault 2	800-28
NA	NA	800-1201	Radioactive Site South of Building 883	800-30
NA	NA	800-1202	Sulfuric Acid Spill, Building 883	800-31
NA	NA	800-1203	Sanitary Sewer Line Break Between Buildings 865 and 886	800-32
NA	NA	800-1204	Building 866 Spills	800-33
NA	NA	800-1205	Building 881, East Dock	800-35
NA	NA	800-1206	Fire, Building 883	800-36
NA	NA	800-1207	Transformer 883-4	800-37

**APPENDIX 2 (continued)**

IHSS NO.	OU NO.	PAC NO.	PAC NAME	PAGE
NA	NA	800-1208	Transformer 881-4	800-38
NA	NA	800-1209	Leaking Transformers, 800 Area	800-39
NA	NA	800-1210	Transformer 865-1 and 865-2	800-40
NA	NA	800-1211	Capacitor Leak, Building 883	800-41
900 AREA				
NA	NA	900-1300	RO Plant Sludge Drying Beds	900-47
NA	NA	900-1301	Building 991 Enclosed Area	900-48
NA	NA	900-1302	Gasoline Spill	900-50
NA	NA	900-1303	Natural Gas Leak	900-51
NA	NA	900-1304	Chromic Acid Spill - Building 991	900-52
NA	NA	900-1305	Building 991 Roof	900-53
NA	NA	900-1306	Transformers 991-1 and 991-2	900-54
NA	NA	900-1307	Explosive Bonding Pit	900-55

**SECTION 6.0**  
**REVISED IHSS AND PAC MAPS**

THIS TARGET SHEET REPRESENTS AN  
OVER-SIZED MAP / PLATE FOR THIS DOCUMENT:  
(Ref: 95-RF-03617)

**Quarterly Update for January 1, 1995  
through March 31, 1995  
Historical Release Report**

**April 1995**

**Individual Hazardous Substance  
Sites by Operable Unit**

**Map ID: oushd**

**April 20, 1995**

**CERCLA Administrative Record Document, SW-A-00001560**

U.S. DEPARTMENT OF ENERGY  
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

GOLDEN, COLORADO

THIS TARGET SHEET REPRESENTS AN  
OVER-SIZED MAP / PLATE FOR THIS DOCUMENT:  
(Ref: 95-RF-03617)

**Quarterly Update for January 1, 1995  
through March 31, 1995  
Historical Release Report**

**April 1995**

**Potential Areas of Concern**

**Map ID: pacs1094**

**April 20, 1995**

**CERCLA Administrative Record Document, SW-A-00001560**

**U.S. DEPARTMENT OF ENERGY  
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE**

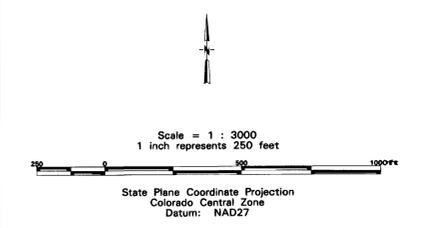
**GOLDEN, COLORADO**

# Potential Areas of Concern

- Standard Map Features**
-  Buildings and other structures
  -  Lakes and ponds
  -  Streams, ditches, or other drainage features
  -  Fences
  -  Contours (20' Intervals)
  -  Paved roads
  -  Dirt roads

**DATA SOURCE:**  
 Buildings, roads, and fences provided by  
 Facilities Engr.,  
 EG&G Rocky Flats, Inc. - 1991.  
 Hydrology provided by  
 USGS - (date unknown)  
 PAC's  
 Historical Release Report (HRR)  
 Ninth Quarterly Update  
 October 1994

- UBC-440  Under Building Contamination Potential Area of Concern
- 900-1310  Potential Area of Concern
- NE-1406  Potential Area Of Concern Point Spill

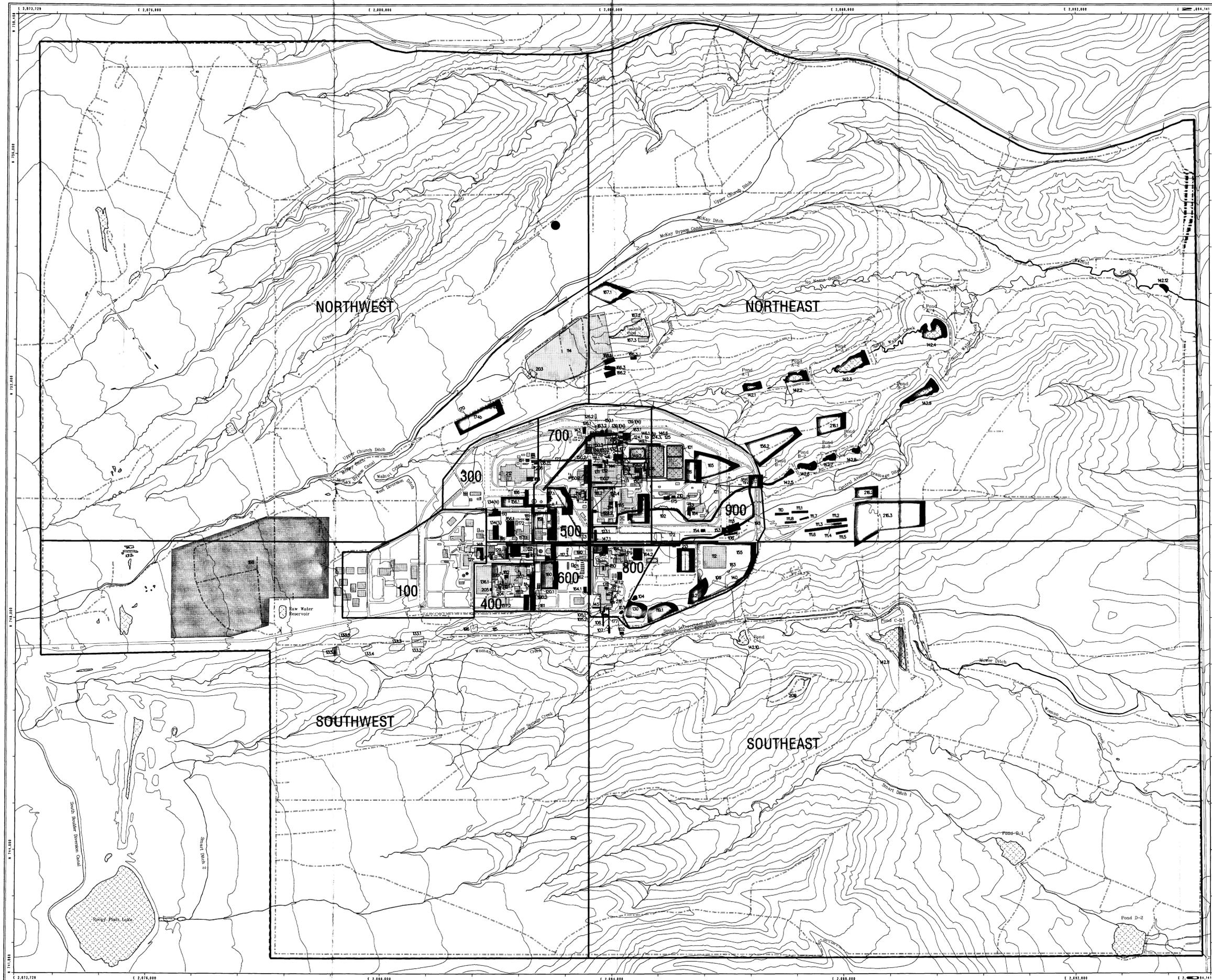


U.S. Department of Energy  
 Rocky Flats Environmental Technology Site

Prepared by:  
**EG&G ROCKY FLATS**  
 Rocky Flats Environmental Technology Site  
 P.O. Box 464  
 Golden, Colorado 80402-0464

SW-A-001560



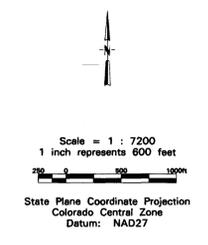


### Individual Hazardous Substance Sites by Operable Unit

- Operable Unit 1
- Operable Unit 2
- Operable Unit 4
- Operable Unit 5
- Operable Unit 6
- Operable Unit 7
- Operable Unit 8
- Operable Unit 9
- Operable Unit 10
- Operable Unit 11
- Operable Unit 12
- Operable Unit 13
- Operable Unit 14
- Operable Unit 15
- Operable Unit 16

- #### Standard Map Features
- Buildings and other structures
  - Lakes and ponds
  - Streams, ditches, or other drainage features
  - Fences
  - Contours (20' Intervals)
  - Rocky Flats boundary
  - Paved roads
  - Dirt roads

**DATA SOURCE:**  
 Buildings, roads, and fences provided by Facilities Engr., EG&G Rocky Flats, Inc. - 1991.  
 Hydrology provided by USGS - (date unknown).  
 Individual Hazardous Substance Sites (IHSS's) are determined by the following:  
 OU1 - HRTI Phase II Report  
 OU2, 4, 7, 11, 8, 15 - HRR  
 The remaining OUs are defined by their respective Operation Unit Workplan.



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

Prepared by:  
**EG&G ROCKY FLATS**  
 Rocky Flats Environmental Technology Site  
 P.O. Box 464  
 Golden, Colorado 80402-0464

5111-A-000760