

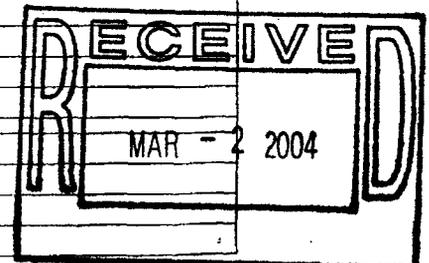
Type 1 Facility Closeout Report

Section A. Facility Data	
Facility No.	Cooling Tower 454
Facility Descriptor:	Building 454 Cooling Tower
Project:	444 Cluster Closure Project
Date of Demolition:	November 14, 2003
Additional Information:	See attached
<i>(Must include information on environmental releases and conditions of site at turnover to Environmental Restoration)</i>	

Section B. Final Characterization Data	
Reconnaissance Level Characterization Report <i>(concurrence received)</i>	Reconnaissance Level Characterization Report (RLCR) for Cooling Tower 454 – Concurrence, Steven H. Gunderson to Joseph A. Legare, dated December 24, 2002.
In-process Characterization	N/A
Pre-Demolition Survey Report <i>(approval received)</i>	N/A
Post-Demolition Survey Report <i>(as necessary)</i>	N/A

B444-28
B444-29

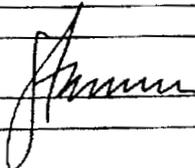
Section C. Waste Data (complete categories as appropriate)	
Sanitary Disposal	
Disposal Site:	BFI Landfill, 88 th and Tower Road, Commerce City, CO.
Waste Volume (m ³):	145.3
Waste Weight (tons):	31.8
Additional Information:	Waste materials shipped between 11/4/03 through 11/10/03. Waste materials consisted of debris from 454 demolition.
Sanitary Disposal	
Disposal Site:	BFI Landfill, Highway 93, Jefferson County, CO.
Waste Volume (m ³):	87.9
Waste Weight (tons):	60.4
Additional Information:	Waste materials shipped between 11/12/03 through 11/17/03. Waste materials consisted of debris from demolition of the concrete pad.
Hazardous Disposal	
Disposal Site:	N/A
Waste Volume (m ³):	
Additional Information:	
TSCA Waste Disposal	
Disposal Site:	N/A
Waste Volume (m ³):	
Additional Information:	
Asbestos Waste Disposal	
Disposal Site:	N/A
Waste Volume (m ³):	
Additional Information:	
Low-Level Waste Disposal	
Disposal Site:	N/A
Waste Volume (m ³):	
Additional Information:	
Low-Level Mixed Waste Disposal	
Disposal Site:	N/A
Waste Volume (m ³):	
Additional Information:	
Recycled Material	
Recycle Facility:	N/A
Waste Volume (m ³):	
Additional Information:	



1/6

Type 1 Facility Closeout Report

Property Disposition	N/A
Receiver Locations (major items only):	
Volume (m ³):	
Weight (tons):	
Additional Information:	

Section D. Approvals			
Kaiser-Hill Project Manager	CJ FACILITY		02/06/04
	Name/Signature		Date

Type 1 Facility Closeout Report

Attachment; Cooling Tower 454

Section A. Facility Data:

Building 454 Cooling Tower was located directly east of Building 444 (See attached 444 Cluster Type 1 Facilities Map and Cooling Tower Final Closeout Report Map). Physical size was approximately 24 feet wide X 60 feet long X 10 feet high above the concrete mounting footings. Building 454 Cooling Tower was mounted on four 60-foot X 1-foot I-Beams. The cooling tower's electrical panel was located on the exterior of the south wall.

Related projects include those under the 444 Cluster Facility Buildings; 427, 449, 449A, 449C, S449, 453, 454, and 457 PAD. There were no deviations to decision documents for other projects. No conditions occurred which are different from expectations at characterization.

Cooling Tower 454 was located in the 400 area Individual Hazardous Substance Site (IHSS), designated as a Potential Areas of Concern (PAC) and assigned a unique release number based on the geographic location of the PAC and its status as an existing IHSS. Environmental Restoration (ER) will conduct the identification, investigation, and remediation of the site. Remediation of the site will be determined after characterization sampling, if applicable. Environmental media beneath and surrounding this facility were not within the scope of this project.

D&D of the cooling tower consisted of the demolition of the structure, foundation, piping and electrical system. Electrical conduit and wiring to the structure was cut and air gapped as close to Building 444 as possible. All mechanical systems and piping to the structure were drained, cut, and air gapped. Water was drained to the sanitary sewer and treatment system for processing. Exposed drains to the sanitary sewer were grouted at grade to keep foreign material, including ground or surface water, out of the sanitary sewer system. Mechanical plugs were installed on all abandoned piping to Building 444. Final disposition of the abandoned piping and sanitary sewer line will be determined pursuant to decontamination and decommissioning (D&D) of the 444 Cluster Closure Project. Cooling tower structure, mechanical equipment and foundation were demolished and the debris disposed of as sanitary waste. Prior to removal of the concrete pad/foundation, Environmental Restoration obtained samples. Backfill was not permitted until sampling results were received and evaluated. All demolition and cleanup work was performed by GASH Electric and TP Associates, subcontractors to RFCSS. Streets, walks, walkways, and other adjacent facilities remain. Removal of these structures was not within the scope of this project.

Section B. Final Characterization Data:

Reconnaissance Level Characterization (RLC) was performed to enable facility "Typing" per the DPP (10/8/98) and compliant disposition and waste management of certain 444 Cluster facilities (i.e., Buildings 427, 449, 449A, 449C, S449, 453, 454, and 457 Pad). Because this facility was anticipated to be Type I facility, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). All facility surfaces were characterized and the data contained in the RLC report, including the interior and exterior surfaces. Environmental media beneath and surrounding the facilities were not within the scope of this project and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA.

The RLC encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP). The

Type 1 Facility Closeout Report

characterization was built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Reports.

Results indicate that no radiological contamination exists in excess of PDSP unrestricted release limits of DOE Order 5400.5. All bulk samples of non-friable asbestos containing building materials were negative for asbestos. Any hazardous waste items were removed prior to demolition and disposed of in compliance with EPA and CDPHE regulations.

Based upon the RLCR, Cooling Tower 454 is Type 1 facility. Copy of the RLC report can be found in the Administrative Record.

Section C. Waste Data:

Volumes and weights for wastes generated by this project are listed on the cover page of this closeout report. Record of the waste volume, weights, and disposal site(s) for this project were generated and are maintained by Sanitary & Special Waste Projects. No waste analysis was performed in addition to the RLCR. This project did not include property sold at public auction or recycled.

Additional Information:

Listed below are the databases that provide the administrative controls for waste package and area information, chemical management, storage tank management, and RISS environmental compliance tracking. Applicable databases were updated to reflect the status of the cooling tower at the time of demolition and removal.

- Waste and Environmental Management System (WEMS),
- Chemical Tracking System (CTS),
- Tank Management System, and
- Environmental Compliance Action Tracking System (ECATS).

5

**444 Cluster
Type 1 Facilities
427, 449, 449A, 449C,
S449, 453, 454, & 457 Pod**

Standard Map Features

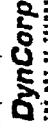
-  Buildings and other structures
-  Solar Evaporation Ponds (SEPs)
-  Lakes and ponds
-  Streams, ditches, or other drainage features
-  Fences and other barriers
-  Paved roads
-  Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G IRSI, Las Vegas. Digitized from the orthophotograph, 1995

Scale = 1:12480
1 inch represents approximately 1038 feet
1994 1995
State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD83

U.S. Department of Energy
Rocky Flats Environmental Technology Site
OR OAC 203-002-7707

Prepared by:

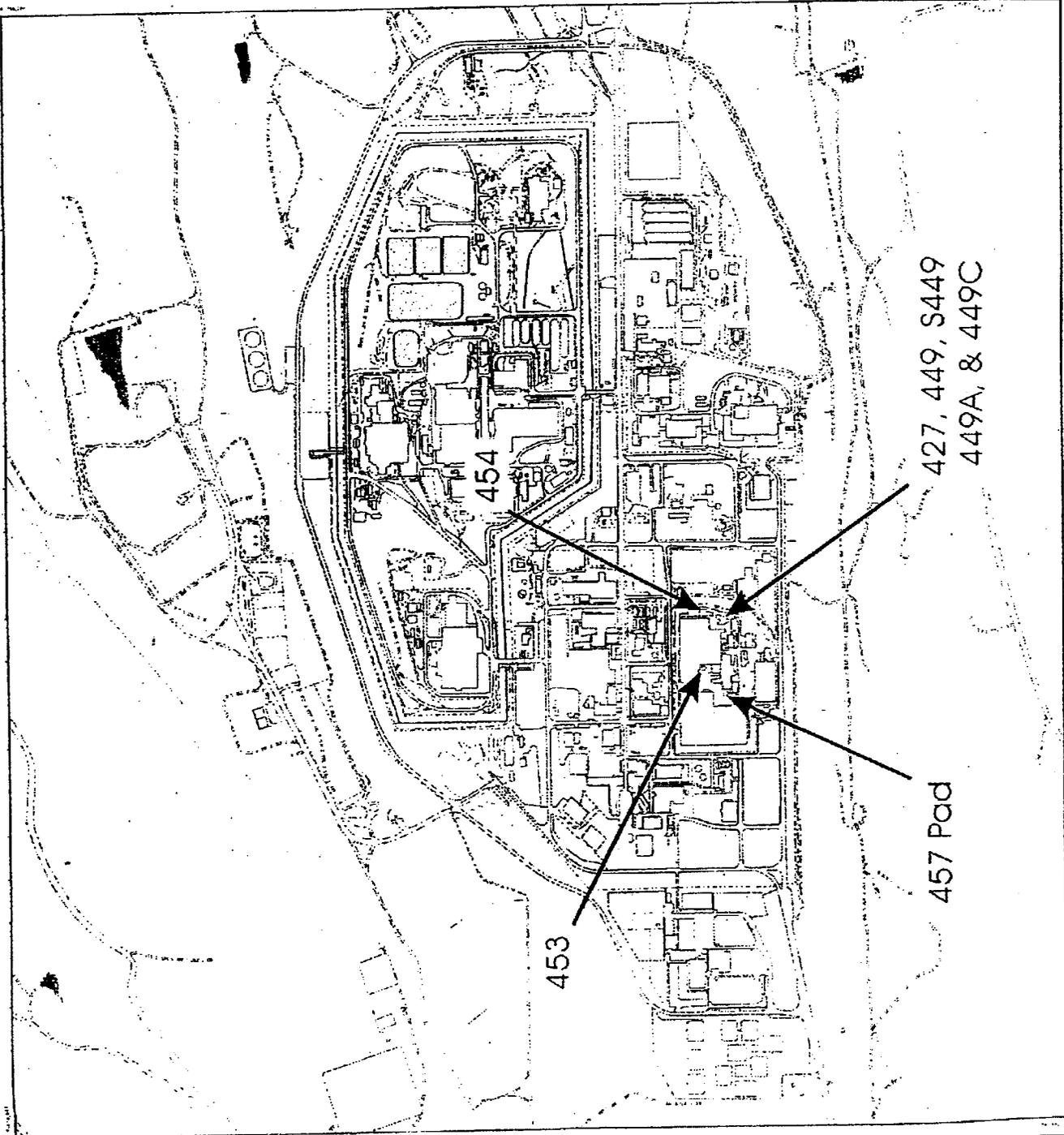


MAP ID: FY 2002

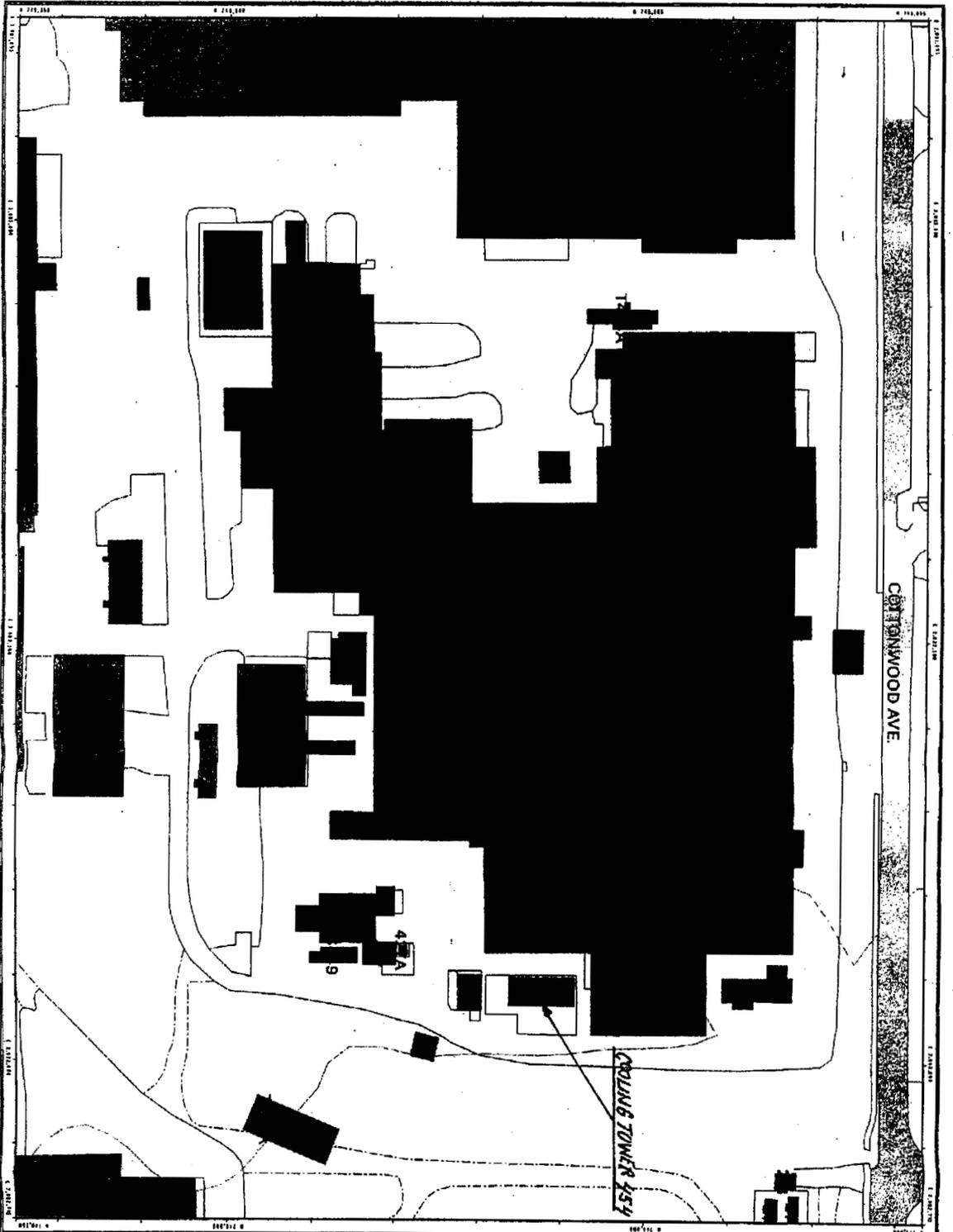
Prepared for:



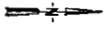
August 28, 2002



NT:\SW\Projects\2002\FY 2002\Overview_4441.cdr



**Cooling Tower 454
Final Closeout Report
Area Map**



Scale = 1:200
1 inch represents 20 feet

State Plane, Georgia Projection
Datum: NAD27

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

Prepared by: **CH2MHILL**
Prepared for: **Kaiser-Fulford**
April 18, 2003

9/9