
Overview

Third Five-Year Review

Rocky Flats Site

Central Operable Unit

Rocky Flats Stewardship Council (RFSC) Meeting
September 12, 2011



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

Community Notification of Review

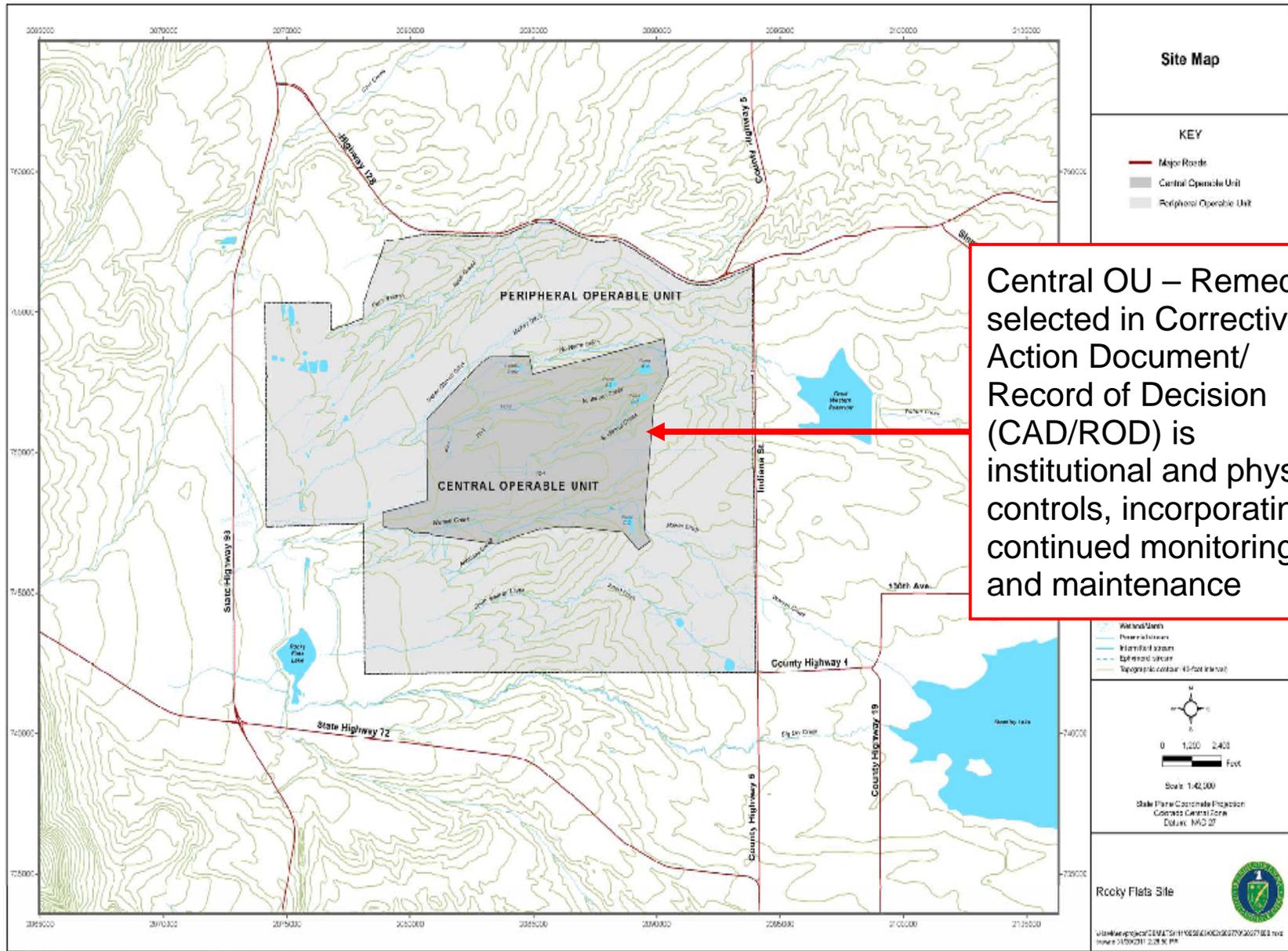
- Required by Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and National Contingency Plan (NCP)
- Publication of notice that review is being conducted
- Information is posted on the Rocky Flats website
- Status provided at RFSC meetings
- Public will be notified when the Third Five-Year Review Report is completed
- The report will be posted on the Rocky Flats website



Operable Unit (OU) Status

- OU 3 – Offsite Areas and Peripheral OU
 - Hazardous substances, pollutants, or contaminants occur below levels that allow for unlimited use and unrestricted exposure (UU/UE)
 - No significant threat to public health or the environment – no further CERCLA response action
- OU 3 and Peripheral OU deleted from CERCLA National Priorities List on May 25, 2007
 - **72 Federal Register 48, 11313, March 13, 2007;**
72 Federal Register 101, 29276, May 25, 2007
- Central OU contains the areas that require continuing CERCLA response action
 - Hazardous substances, pollutants, or contaminants occur above UU/UE levels





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CERCLA Five-Year Review

- If above UU/UE levels, periodic review is required to determine if selected CERCLA remedy remains protective of human health and the environment
 - Review must be conducted at least every five years, hence “CERCLA Five-Year Review”
 - Second Five-Year Review was completed September 14, 2007, posted on website at http://www.lm.doe.gov/Rocky_Flats/Sites.aspx?view=5
 - Third Five-Year Review must be completed by September 14, 2012



Who Conducts the Review?

- At Rocky Flats, U.S. Department on Energy (DOE), as the CERCLA federal lead agency under Executive Order 12580, *Superfund Implementation*, is conducting the review
 - Colorado Department of Public Health and Environment, U.S. Environmental Protection Agency (EPA) and DOE Legacy Management Support contractor assist
- Review will follow EPA *Comprehensive Five-Year Review Guidance*, dated June 2001
- EPA guidance and other information at <http://www.epa.gov/superfund/cleanup/postconstruction/5yr.htm>



Protectiveness Determination

- The purpose of the five-year review is to determine whether a site remedy is protective of human health and the environment
- EPA will either concur with DOE protectiveness determination or make an independent finding
- The review addresses three questions to assess the protectiveness of a remedy



Protectiveness Determination (continued)

- **Question A:** Is the remedy functioning as intended?

Answer: Yes = Protective

- Review the technical performance of the remedy, including monitoring data, system performance, and operation and maintenance; and
- Determine whether physical and institutional controls are in place and successfully preventing exposure.



Protectiveness Determination (continued)

- **Question B:** Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) still valid?

Answer: Yes = Protective

- Evaluate whether the Comprehensive Risk Assessment underlying exposure scenarios and parameters remain valid;
- Consider any changes that have occurred in reference doses or slope factors, or applicable or relevant and appropriate requirements; and
- Consider if RAOs remain valid.



Protectiveness Determination (continued)

- **Question C:** Has any other information come to light that could call into question the protectiveness of the remedy?

Answer: No = Protective

- Consider new information not addressed or anticipated in the CAD/ROD that could call into question the protectiveness of the remedy.
- *Note: remedy selection decisions are not reopened but are evaluated against new requirements, if any have been promulgated*



Protectiveness Statements

- If answers to A, B, and C are other than “yes,” “yes,” and “no,” possible review results are that the remedy:
 - Is still protective;
 - Is protective in the short term, but follow-up actions are needed to ensure long-term protectiveness;
 - Is not protective, unless the specified action(s) are taken in order to ensure protectiveness; or
 - Protectiveness cannot be determined until further information is obtained



Five-Year Review Conclusions

- Protectiveness statement – determination of whether the remedy is, or is expected to be, protective of human health and the environment
- Identification of any issues
- Recommendations and follow-up actions
- Remedy may still be determined protective even though further actions are recommended



Data Review and Analysis

- Drawn from Rocky Flats Legacy Management Agreement (RFLMA) Annual Reports for 2007–2011
 - The monitoring data set consists of validated data from January 1, 2007 through December 31, 2011
 - Data for monitoring locations specified in RFLMA will be used
- Site inspection – results of annual RFLMA inspections through March 2012 (expected date of next inspection) will be used
- Remedy-related operation and maintenance cost data will be evaluated



RFLMA Evaluations

- RFLMA also specifies certain evaluations be done as part of the CERCLA periodic reviews
- Besides the protectiveness questions, the scope will
 - Review whether new technologies may reduce the need to rely on institutional controls and recommend any follow up;
 - Recommend continuing, discontinuing, or changing any remedy component; and
 - Recommend any changes to landfill inspection and monitoring frequencies.

