

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 300**

[FRL-7534-7]

**National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List****AGENCY:** Environmental Protection Agency.**ACTION:** Notice of intent for partial deletion of the Rocky Mountain Arsenal National Priorities List Site from the National Priorities List; request for comments.

**SUMMARY:** The Environmental Protection Agency (EPA) Region 8 announces its intent to delete the Surface Deletion Area (SDA), which includes the surface and structures media only within 123 acres of the Rocky Mountain Arsenal National Priorities List Site (RMA/NPL Site) On-Post Operable Unit (OU), from the National Priorities List (NPL) and requests public comment on this proposed action. The NPL constitutes Appendix B of 40 CFR part 300, which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

EPA bases its proposal to delete the SDA of the RMA/NPL Site on the determination by EPA and the State of Colorado, through the Colorado Department of Public Health and Environment (CDPHE), that all appropriate actions under CERCLA have been implemented to protect human health, welfare and the environment and that no further response action by responsible parties is appropriate.

This partial deletion pertains to the surface (soil, surface water, sediment) and structures media only and excludes the groundwater media of the Surface Deletion Area of the On-Post OU of the RMA/NPL Site. The Selected Perimeter Area of the On-Post OU RMA/NPL Site, composed of the surface, structures, and groundwater media within an additional 4,930 acres, also is being proposed as a separate partial deletion during the same public comment period. The rest of the On-Post OU and the Off-Post OU will remain on the NPL and response activities will continue at those OUs.

**DATES:** Comments concerning this proposed partial deletion may be submitted on or before August 26, 2003.

**ADDRESSES:** Comments may be mailed to: Catherine Roberts, Community

Involvement Coordinator (8OC), U.S. EPA, Region 8, 999 18th Street, Suite 300, Denver, Colorado, 80202-2466, 1-800-227-8917 or (303) 312-6025.

Comprehensive information on the RMA/NPL Site, as well as information specific to this proposed partial deletion, is available through EPA's Region 8 Superfund Records Center in Denver, Colorado. Documents are available for viewing by appointment from 8 a.m. to 4 p.m., Monday through Friday excluding holidays, by calling (303) 312-6473. The Administrative Record for the RMA/NPL Site and the Deletion Docket for this partial deletion are maintained at the Joint Administrative Records Document Facility, Rocky Mountain Arsenal, Building 129, Room 2024, Commerce City, Colorado 80022-1748, (303) 289-0362. Documents are available for viewing from 12 p.m. to 4 p.m., Monday through Friday, or by appointment.

**FOR FURTHER INFORMATION CONTACT:** Ms. Laura Williams, Remedial Project Manager (8EPR-F), U.S. EPA, Region 8, 999 18th Street, Suite 300, Denver, Colorado, 80202-2466, (303) 312-6660.

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**I. Introduction**

The Environmental Protection Agency (EPA) Region 8 announces its intent to delete the Surface Deletion Area (SDA) of the Rocky Mountain Arsenal/National Priorities List (RMA/NPL) Site, Commerce City, Colorado, from the National Priorities List (NPL) and requests comment on this proposed action. The NPL constitutes appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300, which EPA promulgated pursuant to section 105 of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9605. EPA identifies sites that appear to present a significant risk to public health or the environment and maintains the NPL as the list of those sites. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). This partial deletion of the Site is proposed in accordance with 40 CFR 300.425(e) and Notice of Policy Change: Partial Deletion of Sites Listed on the National Priorities List (60 FR 55466 (Nov. 1, 1995)). As described in 40 CFR 300.425(e)(3), portions of a site deleted from the NPL remain

eligible for further remedial actions if warranted by future conditions.

EPA will accept comments concerning its intent for partial deletion of the RMA/NPL Site for thirty days after publication of this notice in the **Federal Register**.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses the procedures that EPA is using for this proposed partial deletion. Section IV discusses the Surface Deletion Area of the RMA/NPL Site and explains how it meets the deletion criteria.

**II. NPL Deletion Criteria**

The NCP establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate to protect public health or the environment. In making such a determination pursuant to section 300.425(e), EPA will consider, in consultation with the State, whether any of the following criteria have been met:

Section 300.425(e)(1)(i). Responsible parties or other persons have implemented all appropriate response actions required; or

Section 300.425(e)(1)(ii). All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

Section 300.425(e)(1)(iii). The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, taking remedial measures is not appropriate.

A partial deletion of a site from the NPL does not affect or impede EPA's ability to conduct CERCLA response activities for portions not deleted from the NPL. In addition, deletion of a portion of a site from the NPL does not affect the liability of responsible parties or impede agency efforts to recover costs associated with response efforts. The U.S. Army and Shell Oil Company will be responsible for all future remedial actions required at the area deleted if future site conditions warrant such actions.

**III. Deletion Procedures**

Upon determination that at least one of the criteria described in Section 300.425(e) of the NCP has been met, EPA may formally begin deletion procedures. The following procedures were used for this proposed deletion of the SDA of the RMA/NPL Site:

(1) EPA has recommended the partial deletion and has prepared the relevant documents.

(2) The State of Colorado, through the CDPHE, has concurred with publication of this notice of intent for partial deletion.

(3) Concurrent with this national Notice of Intent for Partial Deletion, a local notice has been published in a newspaper of record and has been distributed to appropriate federal, State, and local officials, and other interested parties. These notices announce a thirty (30) day public comment period on the deletion package, which ends on August 26, 2003, based upon publication of this notice in the **Federal Register** and a local newspaper of record.

(4) EPA has made all relevant documents available at the information repositories listed previously for public inspection and copying.

Upon completion of the thirty calendar day public comment period, EPA Region 8 will evaluate each significant comment and any significant new data received before issuing a final decision concerning the proposed partial deletion. EPA will prepare a responsiveness summary for each significant comment and any significant new data received during the public comment period and will address concerns presented in such comments and data. The responsiveness summary will be made available to the public at the EPA Region 8 office and the information repository listed above and will be included in the final deletion package. Members of the public are encouraged to contact EPA Region 8 to obtain a copy of the responsiveness summary. If, after review of all such comments and data, EPA determines that the partial deletion from the NPL is appropriate, EPA will publish a final notice of partial deletion in the **Federal Register**. Deletion of the Surface Deletion Area of the RMA/NPL Site does not actually occur until a final notice of partial deletion is published in the **Federal Register**. A copy of the final partial deletion package will be placed at the EPA Region 8 office and the information repository listed above after a final document has been published in the **Federal Register**.

#### IV. Basis for Intended Partial Deletion

The following information provides EPA's rationale for deletion of the SDA of the RMA/NPL Site from the NPL and EPA's finding that the proposed final deletion satisfies 40 CFR 300.425(e) requirements:

##### *RMA/NPL Site Background*

The Rocky Mountain Arsenal was established in 1942 by the U.S. Army, and was used to manufacture chemical warfare agents and incendiary

munitions for use in World War II. Prior to this, the area was largely undeveloped ranch and farmland. Following the war and through the early 1980s, the facilities continued to be used by the Army. Beginning in 1946, some facilities were leased to private companies to manufacture industrial and agricultural chemicals. Shell Oil Company, the principal lessee, primarily manufactured pesticides from 1952 to 1982. After 1982, the only activities at the Arsenal involved remediation.

Complaints of groundwater pollution north of the RMA/NPL Site began to surface in 1954. Common industrial and waste disposal practices used during these years resulted in contamination of structures, soil, surface water, and groundwater. As a result of this contamination, the RMA was proposed for inclusion on the NPL on October 15, 1984. The listing of RMA on the NPL, excluding Basin F, was finalized on July 22, 1987. Basin F was added to the RMA/NPL Site listing on March 13, 1989. On February 17, 1989, an interagency agreement—referred to as a Federal Facility Agreement (FFA)—formalizing the process framework for selection and implementation of cleanup remedies at the RMA/NPL Site, became effective. The FFA was signed by the Army, Shell Oil Company, EPA, U.S. Department of the Interior, U.S. Department of Justice, and the Agency for Toxic Substances and Disease Registry.

Prior to the selection of remedial alternatives, a remedial investigation/assessment/feasibility study (RI/EA/FS) was conducted for the On-Post OU to provide information on the type and extent of contamination, human and ecological risks, and feasibility of remedial actions suitable for application at RMA. The remedial investigation (RI) completed in January 1992 studied each of the five environmental media at the RMA/NPL Site, including soils, water, structures, air, and biota. The feasibility study (FS) was finalized in October 1995, and a proposed remedial action plan was prepared and presented to the public in October 1995.

On June 11, 1996, the Army, EPA, and the State of Colorado signed the Record of Decision (ROD) for the On-Post Operable Unit. The ROD, which formally establishes the cleanup approach to be taken for the On-Post OU, specified the remedial actions to be implemented for soil, structures, and groundwater for the On-Post OU of RMA.

The On-Post OU of the RMA/NPL Site (see map, RMA Surface Deletion Area)

encompasses 25.5 square miles in southern Adams County, Colorado, approximately 8 miles northeast of downtown Denver.

##### *Surface Deletion Area of the On-Post OU*

The SDA is an area of approximately 123 acres (0.2 square miles) on the northern and southern perimeter of the RMA/NPL Site. The SDA consists of a 250-foot-wide strip along the northern RMA boundary in Sections 23 and 24, and 62.6 acres adjacent to Lake Ladora and including Lake Mary in Section 2 (see map). Below the SDA area, the groundwater contaminant concentrations remain above remedial action levels. Therefore, only the surface and structures media are included as part of the SDA. The groundwater media below the SDA will remain as part of the RMA/NPL Site.

A remedial investigation (RI) for the On-Post OU, completed in January 1992, studied each of the environmental media at the RMA/NPL Site including soil, sediment, structures, water, air, and biota. Based upon evidence gathered during the RI, one soil project was identified within the SDA. The Miscellaneous Southern Tier Soil project located near the south lakes included eight contamination areas; one located partially within the SDA in Section 2, contaminated with pesticides (aldrin and dieldrin) which presented a risk to human health and biota. A structures survey identified three structures within the SDA. One of these structures has no history of contamination and is designated for future use. The contaminants identified within the other two structures include asbestos, polychlorinated biphenyls (PCBs), pesticides, herbicides and heavy metals.

One groundwater plume below the northern portion of the SDA primarily contains chloroform, benzene, atrazine, dieldrin, DIMP (a byproduct of nerve agent production), trichloroethylene, dibromochloropropane, and DDT. A second groundwater plume flows beneath the southern portion of the SDA and primarily contains dieldrin and chloroform.

A feasibility study (FS) was finalized in October 1995, and a proposed plan prepared and presented to the public in October 1995. On June 11, 1996, the On-Post Record of Decision (ROD) was signed by the Army, EPA, and the State of Colorado. The ROD required the excavation and consolidation of soil presenting a risk to human health, as well as munition debris, in a state-of-the-art hazardous waste landfill to be built within the On-Post OU; and

excavation of debris and soil presenting a risk to biota and placement of those soils in the Basin A consolidation area which is located in the central portion of the RMA/NPL Site. The excavated human health exceedance areas were to be backfilled with on-post borrow material and revegetated. Unexploded ordnance was to be transported off-site for detonation or other demilitarization process, unless the unexploded ordnance was unstable and must be detonated on-site.

The remedy for structures included the demolition of two of the three structures identified in the SDA. The selected groundwater remedy consisted of continued operation of the groundwater treatment systems, including the North Boundary Containment System to treat the groundwater plume in the northern portion of the SDA and the Northwest Boundary Containment System to treat the groundwater plume originating in the southern portion of the SDA. Lake levels were to be maintained to prevent the groundwater plume from entering the South Lakes, including Lake Mary. Additionally, wells which had the potential to provide a cross-contamination pathway from the contaminated, upper groundwater aquifer to the deeper, confined aquifer were to be closed. The ROD also required continued use restrictions for the property.

#### *Community Involvement*

Since 1988, each of the parties involved with the Arsenal cleanup has made extensive efforts to ensure that the public is kept informed on all aspects of the cleanup program. More than 100 fact sheets about topics ranging from historical information to site remediation have been developed and made available to the public. Following the release and distribution of the draft Detailed Analysis of Alternatives report (a second phase of the FS), the Army held an open house for about 1,000 community members. The open house provided opportunity for individual discussion and understanding of the various technologies being evaluated for cleanup of the RMA/NPL Site.

The Proposed Plan for the On-Post OU was released for public review on October 16, 1995. On November 18, 1995, a public meeting was held, attended by approximately 50 members of the public, to obtain public comment of the Proposed Plan. As a result of requests at this meeting, the period for submitting written comments on the plan was extended one month, concluding on January 19, 1996. Minimal comments were received on

the alternatives presented for the projects in the SDA of the On-Post OU. Specifically, the comments requested that the health and safety of nearby communities be protected from air emissions during excavation and demolition activities, that additional treatment capabilities or modification of the existing water treatment systems be considered, and that potential dioxin contamination of the entire RMA/NPL Site be evaluated.

The design for the Miscellaneous Southern Tier Soils, Miscellaneous RMA Structure Demolition, Phase I, and Confined Flow System Well Closure projects were provided to the public for a thirty calendar day review and comment period at both the 30 percent and 95 percent design completion stages (six separate public comment periods). Each design was also presented at the monthly meeting of the RMA Restoration Advisory Board, composed of community stakeholders, regulatory agencies, the Army, Shell Oil Company, and USFWS. No comments regarding the excavation/demolition approach or the proposed health and safety controls for each project were received.

Upon completion of the thirty calendar day public comment period for this NOIDp, EPA Region 8 in consultation with the State and the Army, will evaluate each comment and any significant new data received before issuing a final decision concerning the proposed partial deletion.

#### *Current Status*

The Miscellaneous Southern Tier Soil project, completed in 2000, remediated eight areas including one partially located in the SDA. A total of 1,054 bank cubic yards (bcy) of soil presenting a risk to human health was disposed in the hazardous waste landfill. Another 134 bcy of soil presenting a risk to biota was disposed in the Basin A consolidation area. The Miscellaneous Structures Demolition and Removal Project Design, Phase I required the demolition of the structures and foundations; removal and disposal of the structures and foundations, substations, debris piles, roads and parking areas; removal and disposal or recycling of underground storage tanks, structural steel and other metal components; backfilling and grading; and revegetation of the excavated areas. During the design process, the two structures in the SDA slated for demolition were determined to have been previously demolished.

The North and Northwest Boundary Containment Systems will continue to operate long-term to treat the groundwater below the SDA which

continues to have contaminants above regulatory standards. Monitoring of the groundwater aquifer for the North and Northwest Boundary Containment Systems has been incorporated into the sitewide monitoring program, as required by the ROD.

The Confined Flow System Well Closure project was completed in 2000. A total of 51 wells, one in the SDA, which extended into the deeper, confined flow aquifer were closed. Closure was accomplished by overdrilling the well casing and installing a grout plug. An additional 32 monitoring wells within the SDA are part of the long-term, site-wide monitoring plan. Four wells located within a 100-foot strip of land in the northern part of the SDA to be transferred to local government will be closed. Substitute wells will be used to monitor inside the new RMA boundary.

In 2001, an evaluation of existing water quality data below Lake Mary identified naturally occurring conditions that have prevented the South Plants contaminated groundwater plume from entering the lake. Therefore, there is no need to artificially maintain the water level in Lake Mary. This minor change to the ROD was documented in the Lake Mary Fact Sheet (2003).

Use of the groundwater below the SDA and surface water for potable drinking purposes is prohibited by the FFA, Public Law 102-402, and the ROD; and will continue to be prohibited even after the SDA is transferred to the U.S. Department of Interior or units of local government. Additional prohibitions imposed by the FFA, Public Law 102-402, and the ROD include the use of the SDA for residential, industrial, and agricultural purposes, and for hunting or fishing for consumptive purposes.

The Army is responsible for ongoing monitoring and maintenance associated with groundwater wells located on land to be transferred to the Department of Interior within the SPA. The conduct of long-term groundwater monitoring required by the ROD is delineated in the Final Interim Rocky Mountain Arsenal Institutional Control Plan.

#### *Post-ROD Investigations*

In addition to the 2001 evaluation for Lake Mary, four studies have been conducted since the signing of the ROD on June 11, 1996, that are relevant to the deletion of the SDA. The Summary and Evaluation of Potential Ordnance/Explosives and Recovered Chemical Warfare Materiel Hazards at the Rocky Mountain Arsenal (2002) was conducted in response to the unexpected discovery of six M139 bomblets as part of the

Miscellaneous Structure Demolition and Removal, Phase I project in the Section 36 Boneyard (central portion of the RMA/NPL Site). Using state-of-the-art computer imaging, mapping technology, and software capability which had not existed previously, a comprehensive RMA-wide evaluation for the potential presence of ordnance and explosives as well as recovered chemical warfare materiel hazards was completed. The evaluation identified six additional areas for remedial action (none in the SDA) and concluded that the future discovery of additional sites with ordnance/explosives or recovered chemical warfare materiel hazards is highly unlikely.

In 2001, EPA conducted a four-part Denver Front Range Dioxin Study which determined that the concentration of dioxins at most of the RMA/NPL Site, including the SDA, is not statistically different from values observed in open space and agricultural areas within the Denver Front Range area. Therefore there is no significant health risk from dioxin in soil to future Refuge workers, volunteers, or visitors.

As required by the ROD, a Terrestrial Residual Ecological Risk Assessment was completed in 2002. This report concluded that no significant excess terrestrial residual risks will remain after the ROD-required cleanup actions for soil, including additional areas of excavation and tilling identified as part of remedial design refinement as required by the ROD, are completed. In addition, an aquatic residual risk assessment was conducted for the South Lakes, including Lake Mary. This report estimated risks for the great blue heron, shorebird, and waterbird and concluded that no remediation of lake sediments is required to protect aquatic receptors. Long-term terrestrial and aquatic biomonitoring will be conducted as part of the USFWS Biomonitoring Program.

Based on the extensive investigations and risk assessment performed for the SDA of the RMA/NPL Site, there are no further response actions planned or scheduled for this area. Currently, no hazardous substances remain at the SDA above health-based levels with respect to anticipated uses of and access to the site, which are limited under the FFA,

Public Law 102-402, and the ROD. Because the SDA is subject to these restrictions on land and water use, it will be included in the RMA-wide five-year reviews. There are no operation and maintenance requirements for the remedies implemented at the SDA. All completion requirements for the SDA of the On-Post OU have been achieved as outlined in OSWER Directive 9320.2-09A-P.

EPA, with concurrence from the State of Colorado, has determined that all appropriate CERCLA response actions have been completed within the SDA of the RMA/NPL Site to protect public health and the environment and that no further response action by responsible parties is required. Therefore, EPA proposes to delete the SDA of the On-Post OU of the RMA/NPL Site from the NPL.

Dated: July 16, 2003.

**Kerrigan G. Clough,**

*Acting Regional Administrator, Region 8.*

**BILLING CODE 6560-50-P**

# Rocky Mountain Arsenal Surface Deletion Area Map

