6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA-HQ-SFUND-1983-0002; FRL 9914-92-Region 8]

National Oil and Hazardous Substance Pollution Contingency Plan: Partial Deletion of the California Gulch Superfund Site

National Priorities List

AGENCY: Environmental Protection Agency.

ACTION: Direct final rule.

SUMMARY: The U. S. Environmental Protection Agency (EPA) Region 8 is publishing a direct final Notice of Partial Deletion of Operable Unit 4, (OU4) Upper California Gulch; Operable Unit 5 (OU5), ASARCO Smelters/Slag/Mill Sites; and Operable Unit 7 (OU7), Apache Tailing Impoundment, of the California Gulch Superfund Site (Site), located in Lake County, Colorado, from the National Priorities List (NPL). The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This direct final partial deletion is being published by EPA with the concurrence of the State of Colorado (State), through the Colorado Department of Public Health and Environment (CDPHE) because EPA has determined that all appropriate response actions at OU4, OU5 and OU7 under CERCLA, other than operation, maintenance, and five-year reviews, have been completed. However, this partial deletion does not preclude future actions under Superfund.

This partial deletion pertains to all of OU4, OU5 and OU7. Operable Unit 2 (OU2), Malta Gulch Tailing Impoundments and Lower Malta Gulch Fluvial Tailing; Operable Unit 8 (OU8), Lower California Gulch; Operable Unit 9 (OU9), Residential Populated Areas; and Operable Unit 10 (OU10), Oregon Gulch, were previously partially deleted from the NPL. Operable Unit 1 (OU1), the Yak Tunnel; Operable Unit 3 (OU3), D&RGW Slag Piles and Easement; Operable Unit 6 (OU6), Stray Horse Gulch; Operable Unit 11 (OU11), Arkansas River Floodplain; and Operable Unit 12 (OU12), Site-wide Surface and Groundwater Quality, are not being considered for deletion as part of this action and will remain on the NPL.

DATES: This direct final partial deletion is effective [insert date 60 days from the date of publication in the *Federal Register*] unless EPA receives adverse comments by [insert date 30 days from date of publication in the *Federal Register*]. If adverse comments are received, EPA will publish a timely withdrawal of the direct final partial deletion in the *Federal Register* informing the public that the partial deletion will not take effect.

ADDRESSES:

Submit your comments, identified by Docket ID no. EPA-HQ-SFUND-1983-0002, by one of the following methods:

- http://www.regulations.gov . Follow on-line instructions for submitting comments.
- Email: Linda Kiefer, kiefer.linda@epa.gov
- Fax: (303) 312-7151

- Mail: Linda Kiefer, Remedial Project Manager, Environmental Protection Agency, Region 8, Mail Code 8EPR-SR, 1595 Wynkoop Street, Denver, CO 80202-1129
- Hand delivery: Environmental Protection Agency, Region 8, Mail Code 8EPR-SR, 1595 Wynkoop Street, Denver, CO 80202-1129. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID no. EPA-HQ-SFUND-1983-0002. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at http://www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through http://www.regulations.gov or e-mail. The http://www.regulations.gov Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through http://www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available electronically in http://www.regulations.gov; by calling EPA Region 8 at (303) 312-7279 and leaving a message; and at the Lake County Public Library, 1115 Harrison Avenue, Leadville, CO 80461, (719) 486-0569, Monday and Wednesday from 10:00 am – 8:00 pm, Tuesday and Thursday from 10:00 am – 5:00 pm, and Friday and Saturday 1:00 pm – 5:00 pm.

FOR FURTHER INFORMATION CONTACT: Linda Kiefer, Remedial Project Manager, U.S. Environmental Protection Agency, Region 8, Mailcode EPR-SR, 1595 Wynkoop Street, Denver, CO 80202-1129, (303) 312-6689, email: kiefer.linda@epa.gov.

SUPPLEMENTARY INFORMATION:

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I. Introduction

EPA Region 8 is publishing this direct final Notice of Partial Deletion for all of Operable Unit 4 (OU4), Upper California Gulch; Operable Unit 5 (OU5), ASARCO Smelters/Slag/Mill Sites; and Operable Unit 7 (OU7), Apache Tailing Impoundment, of the Site, from the NPL. The NPL constitutes Appendix B of 40 CFR part 300, of the NCP, which EPA promulgated pursuant to section 105 of CERCLA of 1980, as amended. EPA maintains the NPL as the list of sites that appear to present a significant risk to public health, welfare, or the environment. 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 is consistent with the Notice of Policy Change: Partial Deletion of Sites Listed on the NPL. 60 FR 55466 (Nov. 1, 1995). As described in 40 CR 300.425(e)(3) of the NCP, a portion of a site deleted from the NPL remains eligible for Fund-financed remedial action if future conditions warrant such actions.

Because EPA considers this action to be noncontroversial and routine, this action will be effective [insert date 60 days from the date of publication in the *Federal Register*] unless EPA receives adverse comments by [insert date 30 days from the date of publication in the *Federal Register*]. Along with this direct final Notice of Partial Deletion, EPA is co-publishing a Notice of Intent for Partial Deletion in the "Proposed Rules" section of the Federal Register. If adverse comments are received within the 30-day public comment period on this partial deletion action, EPA will publish a timely withdrawal of this direct final Notice of Partial Deletion before the effective date of the partial deletion and the partial deletion will not take effect. EPA will, as appropriate, prepare a response to comments and continue with the deletion process on the basis of the

Notice of Intent for Partial Deletion and the comments already received. There will be no additional opportunity to comment.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses procedures that EPA is using for this action. Section IV discusses OU4, Upper California Gulch; OU5, ASARCO Smelters/Slag/Mill Sites; and OU7, Apache Tailing Impoundment, and demonstrates how they meet the deletion criteria. Section V discusses EPA's action to partially delete the Site parcels from the NPL unless adverse comments are received during the public comment period.

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. In making such a determination pursuant to 40 CFR 300.425(e), EPA will consider, in consultation with the State, whether any of the following criteria have been met:

i. Responsible parties or other persons have implemented all appropriate response actions required;

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

iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA section 121(c) and the NCP, EPA conducts five-year reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure. EPA conducts such five-year reviews even if a site is deleted from the NPL. EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

III. Partial Deletion Procedures

The following procedures apply to the deletion of OU4, OU5 and OU7:

(1) EPA has consulted with the State prior to developing this direct final Notice of Partial Deletion and the Notice of Intent for Partial Deletion co-published in the "Proposed Rules" section of the Federal Register.

(2) EPA has provided the State 30 working days for review of this notice and the parallel Notice of Intent for Partial Deletion prior to their publication today, and the State, through the CDPHE, has concurred on the partial deletion of OU4, OU5 and OU7 of the Site from the NPL.

(3) Concurrently with the publication of this direct final Notice of Partial Deletion, a notice of the availability of the parallel Notice of Intent for Partial Deletion is being published in a major local newspaper, the Leadville Herald Democrat. The newspaper notice announces the 30-day public comment period concerning the Notice of Intent for Partial Deletion of OU4, OU5 and OU7 of the Site from the NPL.

(4) The EPA placed copies of documents supporting the partial deletion in the deletion docket and made these items available for public inspection and copying at the Site information repositories identified above.

(5) If adverse comments are received within the 30-day public comment period on this partial deletion action, EPA will publish a timely notice of withdrawal of this direct final Notice of Partial Deletion before its effective date and will prepare a response to comments and continue with the deletion process on the basis of the Notice of Intent for Partial Deletion and the comments already received.

Deletion of a portion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a portion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for further response actions, should future conditions warrant such actions.

IV. Basis for Site Partial Deletion

The following information provides EPA's rationale for deleting OU4, OU5 and OU7 of the Site from the NPL:

Site Background and History

The California Gulch Superfund Site, EPA ID No. COD980717938, is located in Lake County, Colorado approximately 100 miles southwest of Denver. The Site was proposed for inclusion on the NPL on December 30, 1982, (47 FR 58476), and listed on

September 8, 1983, (48 FR 40658). The Site is in a highly mineralized area of the Colorado Rocky Mountains covering approximately 18 square miles of a watershed that drains along California Gulch to the Arkansas River. The Site includes the City of Leadville, various parts of the Leadville Historic Mining District, Stringtown, and a section of the Arkansas River from the confluence of California Gulch to the confluence of Two-Bit Gulch. Mining, mineral processing, and smelting activities have occurred at the Site for more than 130 years. Mining in the district began in 1860, when placer gold was discovered in California Gulch. As the placer deposits were exhausted, underground mine workings became the principal method for removing gold, silver, lead and zinc ore. As these mines were developed, waste rock was excavated along with the ore and placed near the mine entrances. Ore was crushed and separated into metallic concentrates at mills, with mill tailing generally released into surrounding streams and after about 1930 slurried into tailing impoundments. Many of the mining operations ceased operations around 1900, although several smelters continued operations into the 1920s (Western Zinc) and the 1960s (AV Smelter) and the last active mine, the Black Cloud, shut down in 1999.

All of the mines within the Site boundaries are presently inactive, and all of the mills and smelters have been demolished. Mining remains that contributed to environmental contamination are (1) mill tailing (the fine-grained residue remaining after milling has removed the metal concentrates form the ore) in impoundments and fluvial deposits, (2) mine waste rock piles (mine development rock and low grade ore removed to gain access to an ore body, and often deposited near adits and shaft openings), (3) mine

water drainage tunnels, (4) draining adits, and (5) various smelter wastes including slag piles, flue dust and fallout from stack emissions.

The Site was placed on the NPL due to concerns regarding the impact of acidic and metals laden mine drainage on surface waters leading to California Gulch and the impact of heavy metals loading into the Arkansas River. A Site-wide Phase I Remedial Investigation (Phase I RI), which primarily addressed surface water and groundwater contamination, was issued in January 1987. As a result of the Phase I RI, EPA identified the first operable unit, the Yak Tunnel, to address the largest single source of metallic loading. A number of additional Site-wide studies followed the Phase I RI.

EPA agreed, pursuant to a May 2, 1994 Consent Decree (1994 CD), to divide the Site into 12 operable units (OUs). With the exception of OU12, the OUs pertain to distinct geographical areas corresponding to areas of responsibility for the identified responsible parties and/or to distinct sources of contamination. The OUs are as follows: OU1, Yak Tunnel/Water Treatment Plant; OU2, Malta Gulch Tailing Impoundments and Lower Malta Gulch Fluvial Tailing; OU3, D&RGW Slag Piles and Easement; OU4, Upper California Gulch; OU5, ASARCO Smelter Sites/Slag/Mill Sites; OU6, Starr Ditch/Stray Horse Gulch/Lower Evans Gulch/Penrose Mine Waste Pile; OU7, Apache Tailing Impoundments; OU8, Lower California Gulch; OU9, Residential Populated Areas; OU10, Oregon Gulch; OU11, Arkansas River Valley Floodplain; and OU12, Site-wide Surface and Groundwater. To date, OU2, OU8, OU9, and OU10 have been partially deleted from the NPL.

The background and history, the Remedial Investigations and Feasibility Studies (RI/FS), Removal and Response Actions, Selected Remedies, Cleanup Standards, and Operation and Maintenance activities for OU4, OU5 and OU7 are discussed below.

OU4 Background and History

Upper California Gulch (OU4) is located to the southeast of the City of Leadville. A map of OU4 can be found in the docket at http://www.regulations.gov under Docket ID no. EPA-HQ-SFUND-1983-0002. OU4 covers an area of approximately 2.4 square miles, contains waste rock piles and fluvial tailing and is divided into six sub-basins, Garibaldi, Whites Gulch, Nugget Gulch, AY Minnie, Iron Hill and South Area, which also includes the Fluvial Tailing Site 4 known as Oro City. Although 131 waste piles were initially identified in OU4, the number of waste rock piles of concern in the OU has been reduced to 20 through remedial investigation and analytical screening. The twenty waste rock piles in these sub-basins contain a total estimated volume of 431,000 cubic yards, impacting 28.3 acres. The waste rock piles are primarily weathered porphyry with limited to no vegetation and with highly oxidized surfaces.

Fluvial tailing deposition within OU4 is discontinuous and appears to have been subdivided into several distinct pockets. In OU4, the Fluvial Tailing Site 4 extends for a distance of approximately 1.5 miles along Upper California Gulch, from slightly upstream of the Yak Tunnel portal to the upstream end of the Printer Boy Mine area. Fluvial tailing and fluvial tailing mixed with alluvial sediments are located in the South Area and Fluvial Tailing Site 4 (Oro City), and are estimated at 102,000 cubic yards in volume. The fluvial tailing piles are largely un-vegetated, with grasses and lodgepole pine growing on approximately a quarter of the tailing surface. A wetland area exists

along the Upper California Gulch channel within the OU4 boundaries. Oro City is considered a cultural and historic resource for the Leadville Historic Mining District. The land in OU4 is zoned by Lake County for recreational, industrial and mining land uses. EPA is the lead agency for OU4 and the CDPHE is the support agency. Under the 1994 CD, Resurrection/Newmont Mining (Resurrection/Newmont) assumed responsibility for OU4.

Concurrent with the various investigations and studies, risk assessments were conducted. They included the Preliminary Baseline Risk Assessment (Preliminary BRA), the Final Baseline Human Health Risk Assessments (Final BRA): Part A, Part B, and Part C; the Ecological Risk Assessment for Terrestrial Ecosystems (ERA); the Surface Water Human Health Risk Assessment; the Groundwater Baseline Human Health Risk Assessment and the Baseline Aquatic Ecological Risk Assessment (BARA).

For human health risk issues at OU4, the Preliminary BRA and the Final BRA Part C, Evaluation of Worker Scenario and Evaluation of Recreational Scenarios, were most pertinent. The Preliminary BRA indicated that lead and arsenic are responsible for the majority of human health risks at the Site. Therefore, arsenic and lead were used as indicator contaminants for risk in the Final BRA. Residential, commercial, and industrial uses do not occur in OU4, nor are these uses anticipated to occur in the future at OU4. Therefore, commercial workers, industrial workers, and residents are not exposed to contaminated media in OU4. Recreation is the most likely land use scenario for OU4. Therefore, recreational visitors were selected as the receptors of concern for OU4. The Final BRA identified soil ingestion as the exposure pathway of concern for recreational visitors. Exposure to other media and exposure to soil/dust through other pathways (e.g.,

dermal) are considered an insignificant concern for recreational users. The OU4 investigations showed that average concentrations of arsenic and lead in exposure areas in OU4 where recreational use is considered likely were less than the risk-based action levels for the recreational land use scenario (lead 16,000 mg/kg and arsenic 1,400 mg/kg) identified in the Final BRA, indicating that an unacceptable health risk is unlikely to result from recreational exposure to lead or arsenic in surface soils in OU4.

For ecological risks at OU4, the BARA and the ERA were the most pertinent. The BARA characterized the impacts of mine waste contamination on the aquatic ecosystem of the Site. Results of the BARA indicate that mine waste poses potential unacceptable risk to all aquatic species. The BARA states that the Girabaldi Mine, the North Mike, and the fluvial tailing, as well as other sources, such as high metal waste rock piles, contribute to the metals entering California Gulch and, ultimately, the Arkansas River. Potential risks to the terrestrial ecosystem from mine waste contamination were characterized in the ERA. Risks to the blue grouse, mountain bluebird, and least chipmunk exceeded EPA acceptable levels for exposure to contaminants in mine waste contamination in OU4. Potential risks to plants and soil fauna from exposure to mine waste contamination were also indicated. Surface water ingestion may also result in a potential risk of some effect to terrestrial receptors. Action levels were not developed for terrestrial receptors. Thus, these releases of contaminants from OU4 presented an unacceptable risk to aquatic and terrestrial ecological receptors and response actions were necessary at OU4 to control the release of contaminants and acidic water into the environment.

OU4 Remedial Investigations and Feasibility Study (RI/FS)

The State, the EPA and certain Potentially Responsible Parties (PRPs) have conducted various studies and investigations to evaluate the nature and extent of contamination generally at the Site, and specifically within OU4. Remedial Investigations (RIs) began in 1986 within the Site, including mine waste rock piles, tailing disposal areas, surface water and aquatics, groundwater, smelter sites, residential/populated area soils, slag piles, and terrestrial studies. The Yak Tunnel/California Gulch Remedial Investigation (1986 RI) evaluated the human health and environmental impacts due to historic mining activities. Waste rock piles were selected for sampling based upon their potential to impact surface water systems. Waste rock and fluvial tailing material samples (from 0 to 6 inches) were collected at 14 sites in OU4. Waste rock and/or tailing samples were collected in the Iron Hill drainage, at the Garibaldi, Agwalt, Printer Girl, and AY-Minnie mine sites, and along Fluvial Tailing Site 4.

In 1986 and 1987, EPA conducted additional RI investigations. The Draft Phase II Remedial Investigation Technical Memorandum 1986-1987 (Phase II RI) evaluated mine-related wastes, surface water and groundwater quality, associated with the Printer Girl and the AY-Minnie mine sites. The California Gulch Hydrologic Investigation, included surface water, groundwater, and sediment sampling; laboratory analysis of samples; and an inventory of mine and mineral waste. The primary objectives were to characterize the surface and groundwater quality and flow patterns, and to identify sources of contaminant loading in California Gulch. Conducted in 1991 and 1992, the Final-Surface Water Remedial Investigation Report (Surface Water Rl), prepared by ASARCO, involved surface water and sediment sampling in the Arkansas River and its tributaries, including California Gulch.

The Final-Hydrogeologic Remedial Investigation Report (Hydrogeologic RI), prepared for ASARCO, from the fall of 1991 through the winter of 1992, included well monitoring, and groundwater analysis. The objectives were to investigate groundwater quality and flow directions, evaluate potential impacts to water users and surface water receptors, and to characterize background groundwater quality.

Issued in 1994, the Final-Tailing Disposal Area Remedial Investigation Report (Tailing RI) discusses the investigation of the five major tailing impoundments and seven fluvial tailing deposits, and their potential impacts on surface and groundwater at the California Gulch Site for ASARCO in the fall of 1991.

The 1994 Draft Final-Field Reconnaissance Survey of Mine Waste Piles Located Within the Upper California Gulch Drainage identified 131 individual waste rock piles and ranked these waste rock piles for two criteria: (1) potential physical instability that may expose or spread materials, and (2) minerals contained on the surface of the pile.

In addition to the Site investigations, cultural resource surveys were conducted at the Garibaldi, the North Moyer, Agwalt, and the Printer Girl mine sites in 1990, 1994, and 1995. Resurrection/Newmont conducted additional field investigation activities in 1994 and 1995 to evaluate the potential for waste rock piles to generate acid rock drainage (ARD) and leach metals; to further define conditions within OU4; to supplement existing RI information with additional physical, chemical, and geotechnical data; and to provide supplemental information for use in an Engineering Evaluation/Cost Analysis (EE/CA) and a Focused Feasibility Study (FFS).

Resurrection/Newmont completed an EE/CA in 1995 (1995 OU4 EE/CA). The 1995 OU4 EE/CA was prepared to evaluate and identify a preferred non-time critical

removal action for the Garibaldi Mine site area within OU4. Resurrection/Newmont completed the FFS for OU4 of the California Gulch Site in January 1998 (1998 OU4 FFS). The purpose of the 1998 OU4 FFS was to identify and evaluate remedial alternatives to address potential sources of contaminant loading within the OU4 site area. The 1998 OU4 FFS provided a detailed analysis for the following waste rock piles and fluvial tailing material: waste rock near the Garibaldi Mine; waste rock in Upper Whites Gulch; waste rock and fluvial tailing near the AY-Minnie and Printer Boy mining areas; waste rock piles at North Moyer/North Mike; and mine waste rock piles located near the Minnie pump shaft.

Based on the results of the numerous remedial investigations and the 1998 OU4 FFS for OU4, the EPA determined, at the time, that actual or threatened releases of hazardous substances from waste rock and fluvial tailing piles in OU4 may present an imminent and substantial endangerment to public health, welfare or the environment if not addressed through remedial action. Metals from former mining activities, present in waste rock and fluvial tailing piles, may leach to surface water or groundwater via ARD. Response actions were necessary at OU4 to control the release of contaminants and acidic water into the environment. These releases presented a risk to aquatic and terrestrial ecological receptors.

OU4 Removal Actions

In the 1994 CD, Resurrection/Newmont agreed to perform certain remediation work in three operable units (OU4, OU8, and OU10). The Work Area Management Plan (WAMP), included as Appendix D to the 1994 CD, defines the scope of work to be performed by Resurrection/Newmont. The 1995 OU4 EE/CA included site

characterization, (utilizing existing remedial investigation data and collected field data) to be used to identify removal action objectives and alternatives. The 1995 OU4 EE/CA provided information to enable the EPA to select several removal actions.

Pursuant to the August 4, 1995 and July 19, 1996 Action Memorandums and the November 18,1996 Amended Action Memorandum, Resurrection/Newmont conducted Non-Time Critical Removal Actions at the Garibaldi sub-basin, the Agwalt Mine in Whites Gulch, and the Upper California Gulch surface water diversion. These removal actions successfully addressed contamination at the Garibaldi and the Agwalt mine sites. The removal actions included construction of portal collection systems and concrete-lined channels to intercept and divert surface water run-on and portal flow away from two waste rock piles. The Garibaldi removal action also included two groundwater interception trenches to divert groundwater flow.

OU4 Selected Remedy

The EPA issued the Record of Decision (ROD) for OU4 (1998 OU4 ROD) on March 31, 1998. The Remedial Action Objectives (RAOs) established in the 1998 OU4 ROD include: (1) Control erosion of contaminated materials into local water courses, (2) Control leaching and migration of metals from contaminated materials into the surface water, and (3) Control leaching and migration of metals from contaminated materials into the groundwater.

The selected remedy for OU4 consisted of the following remedial components: (1) within the Garabaldi sub-basin, creation of a diversion of surface water and selected removal of waste; (2) within the Whites Gulch sub-basin, the excavation, consolidation and removal of waste rock at the Printer Girl Waste Rock Pile, and the regrading of

excavated areas of the Printer Girl Waste Rock Pile and construction of diversion ditches to control surface water run-on to the regraded areas; (3) within the Nugget Gulch sub-basin: excavation and consolidation of the Rubie, Adirondack, Colorado No. 2 east and North Mike Waste Rock Piles onto the Colorado No. 2 Waste Rock Piles; regrading and placement of a simple rock or vegetated cover over the Colorado No. 2 Waste Rock Pile, terracing, soil amendment and revegetation of excavated areas, and construction of diversion ditches to control surface water run-on to the terraced and regraded areas; (4) within the AY Minnie sub-basin: construction of diversion ditches to reduce surface water run-on onto the AY Minnie Waste Rock Pile, and relocation of Lake County Road 2 to allow space for construction of a sedimentation pond and provide added protection from stability failures of timber cribbing without destroying the mining heritage and cultural resources of this mining area; Iron Hill sub-basin: regrading and placement of a simple cover (revegetated soil or rock) over the Mab Waste Rock Pile as well as revegetation of surrounding disturbed areas; and (5) within Oro City, reconstruction and stabilization of the Upper California Gulch stream channel to prepare for a 500-year flood event, and regrading and removal, if necessary, of channel spoil material and selected fluvial tailing, and construction of eight sediment dams within the channel and approximately 1.5 acres of wetlands along the channel.

On March 17, 2004, the EPA issued an Explanation of Significant Differences (ESD) deferring remedial activities at Fluvial Tailing Site 4/Oro City because of the historical significance of the Oro City area as an early mining camp. Spring runoff in the Oro City area is monitored as part of OU12, Site-wide water quality. Because the selected remedy in the 1998 OU4 ROD left wastes in place but did not include

institutional controls (ICs), a second ESD was signed on July 29, 2013 to include ICs as part of the OU4 source control remedy for the Site.

OU4 Cleanup Standards

The 1998 OU4 ROD addressed potential source material contributing to surface water and groundwater contamination at the Site but did not contain numeric cleanup standards. As previously mentioned, the OU12 remedy addresses site-wide surface water and groundwater contamination and includes numeric cleanup standards.

OU4 Response Actions

The 1998 OU4 ROD identified the need for additional remedial actions in Whites Gulch (Printer Girl Waste Pile), Nugget Gulch Waste Rock, AY Minnie Waste Rock, Iron Hill Waste Rock, and Fluvial Tailing Site 4/Oro City. Resurrection/Newmont commenced these remedial actions in June 1998 and completed the work in February 2003. The major components of the remedial action included controlling erosion of contaminated materials into local watercourses, controlling leaching and migration of metals from contaminated materials into the surface water, and controlling leaching and migration of metals from contaminated materials into the groundwater.

OU4 Operation and Maintenance

Under the 1994 CD and a 2008 Consent Decree settlement (2008 CD) that replaced the 1994 CD, Resurrection/Newmont agreed to operate and maintain the OU4 remedy features. Resurrection/Newmont conducts inspections in accordance with the OU4, OU8, and OU10, Operations and Maintenance (O&M) Plan, California Gulch Superfund Site which can be found in Appendix D to the 2008 CD approved on August 29, 2008. Resurrection/Newmont findings are documented in the Annual California

Gulch Superfund Site OU4, OU8 and OU10 Inspection Reports. These reports are available by contacting EPA Region 8.

Environmental covenants for Resurrection/Newmont's properties within OU4 were recorded with the Lake County Clerk and Recorder on July 31, 2012 and October 10, 2012. The environmental covenants provide the following Use Restrictions: (1) No Residential Use, Day Care Centers or Schools, Parks or Open Space that are designed or intended to provide play or recreation areas for children, (2) Restrictions on using untreated groundwater from wells, and (3) Restrictions on uses or activities that would disturb/interfere or have the potential to disturb/interfere with the protectiveness of the remedy and remedial components. On December 22, 2010, Lake County implemented ICs that covered all property within OU4 in the form of a local ordinance, a resolution amending the Lake County Land Development Code and adopting regulations that protect both engineered and non-engineered remedies at OU4. A best management practice handout is provided to all applicants applying for a building permit within OU4. In addition, any disruption of engineered or non-engineered remedies, and/or excavation of more than 10 cubic yards of soil off-site within OU4 requires written approval from the CDPHE. All of OU4 is zoned Industrial Mining by Lake County, which serves to limit future changes of land use without County approval and notification to the EPA and the CDPHE of such proposed changes.

OU5 Background and History

OU5 includes five smelter sites (Elgin Smelter, Grant/Union Smelter, Western Zinc Smelter, Arkansas Valley South Hillside Slag Pile (EGWA) and Arkansas Valley Smelter (AV), and one mill site known as Colorado Zinc-Lead Mill (CZL). A map of

OU5 can be found in the docket at www.regulations.gov under Docket ID no. EPA-HQ-SFUND-1983-0002. One smelter and the mill are co-located as the AV/CZL sites, approximately 1.5 miles southwest of Leadville on the north bank of California Gulch. The combined area is approximately 70 acres. The entire AV/CZL sites lie above the 500-year floodplain of Lower California Gulch. The AV/CZL sites are also adjacent to portions of OU3 that includes the AV Slag Pile. The AV, which is part of the Leadville Historic Mining District, operated from 1879 until 1961. It was the longest-operating smelter in the Leadville area, processing a wide variety of ores and reprocessing slag to produce lead, silver and other metals during this time. The CZL operated intermittently from 1926 to 1938 using a custom flotation process to produce zinc, lead, gold, silver and some copper. Tailing, the byproduct of the mill operation was discharged below the mill presumably into the CZL Tailing Impoundment which is included as part of OU8. The mill closed in 1930 and was reopened in 1935. The mill processed ores from several local mines and waste dumps between 1935 and 1938 when the operations ceased.

The Elgin Smelter, which operated intermittently from 1879 to 1903, is located in north-central Leadville on the south bank of Big Evans Gulch near the intersection of U.S. Highway 24 and State Highway 91. The Elgin Smelter works were leased and operated by several different companies between 1893 and 1902. The Grant/Union Smelter was actually two smelters: the Grant Smelter, which operated from 1878 to 1882, and the Union Smelter which operated from 1892 to 1900. Both smelters were located near the confluence of Georgia Gulch and California Gulch, northeast of the Colorado Mountain College campus. The Western Zinc Smelter, which operated from 1914 until 1926, is located in the western part of Leadville, approximately seventy five feet west of

McWethy Drive and approximately one hundred feet south of the Lake County fairgrounds. The Western Zinc Mining and Reducing Company used the facility to extract zinc from ores.

Also referred to as the Tramway Slag Pile, the Arkansas Valley South Hillside Slag Pile is located south of U.S. Highway 24 on the hillside across from the AV site. It was perhaps used by the AV or the Grant/Union Smelter. The Arkansas Valley South Hillside Slag Pile site is estimated to consist of 16,000 cubic yards in two elongated piles of slag, extending approximately 2,000 feet parallel to California Gulch and U.S. Highway 24. There are no smelter remains or any other waste materials except slag at this site.

Prior to the remedial action, smelter debris, which consisted primarily of brick, concrete, metal, tile, wood and glass, as well as residual mine waste and smelter materials including slag, coke/charcoal, limestone, ore, matte, tailing and flue dust, covered OU5. After remedial action, the majority of the smelter and mill structures at the AV/CZL sites have been demolished, though some buildings and foundations remain preserved as cultural heritage properties. The EGWA sites are currently vacant.

Potential media of concern in OU5 include tailing, flue dust, and non-residential area soils at the AV/CZL sites and slag, non-residential soils, and residential area soils at the EGWA sites. Results of the Preliminary BRA and the Final BRA indicate that human receptors are expected to have minimal exposure to slag. Metals from former mining practices including lead, arsenic, cadmium, copper and zinc, presented a potential risk to human and ecological receptors. The majority of human health risks at the Site, generally,

have been attributed to lead and arsenic. Therefore, these two contaminants were selected as indicator chemicals for remedial response.

Residential use of OU5 is currently limited to one residence, and future residential use is not expected. Otherwise, the AV/CZL and EGWA sites are currently vacant. Commercial, industrial, and recreational uses are the expected future uses at OU5. Therefore, receptors of concern at OU5 are commercial and industrial workers and recreational visitors. The Final BRA identified soil ingestion as the exposure pathway of concern for recreational visitors; ingestion of soil and dust was identified as the exposure pathway of concern for commercial/industrial workers. Exposure to other media (e.g., tailing, waste piles, slag) and exposure to soil/dust through other pathways (e.g., dermal) are considered of insignificant concern for workers and recreational users

The soils at the AV Smelter were determined to contain levels of arsenic and lead above risk-based action levels for both the commercial/industrial land use scenarios (lead 6,100 mg/kg- 7,700 mg/kg and arsenic 610 mg/kg – 690 mg/kg) and the recreational land use scenario (lead 16,000 mg/kg and arsenic 1,400 mg/kg - 3,200 mg/kg) identified in the Final BRA. The highest levels of contamination were detected in samples taken from the bag-house area. The CZL site had lead levels above the risk-based action level for commercial/industrial uses. The Elgin Smelter and the Grant/Union Smelter sampling had lead and arsenic levels above risk-based action levels for both commercial/industrial uses and recreational uses. Therefore, the contaminated media in OU5 posed a significant risk to human health.

As with OU4 above, the BARA and the ERA were the most pertinent in evaluating the risk to ecological receptors in OU5. Releases of contaminants from OU5

presented an unacceptable risk to aquatic and terrestrial ecological receptors and response actions were necessary at OU5 to control the release of contaminants and acidic water into the environment.

OU5 Remedial Investigations and Feasibility Study (RI/FS)

In September 1990, the EPA and ASARCO signed an Administrative Order on Consent for the performance of soils sampling and air monitoring at the Site. In 1991, the EPA issued a Unilateral Administrative Order that required ASARCO to conduct studies and complete RIs. In August 1994, ASARCO entered into a CD with the United States, State and other PRPs to perform certain remediation work in OU5, OU7 and OU9. The WAMP, included as Appendix D to the 1994 CD, defines the scope of work to be performed by ASARCO.

Several investigations have been conducted within the Site that have addressed the smelter/slag/mill sites. A Smelter Site Reconnaissance began in 1991 as part of the Smelter Remedial Investigation (Smelter RI), which was conducted in 1991 and 1992, and primarily focused on smelter-impacted soils but, also included sampling of discrete locations where smelter bag houses, dust chambers, or roasting furnaces may have been located. This study was initiated by ASARCO and included the Elgin Smelter, Grant/Union Smelter, Western Zinc Smelter sites, and Arkansas Valley Smelter sites.

A Surface Water RI (Surface Water RI) of the California Gulch Site was conducted in 1991 and 1992. The final Surface Water RI report was issued in 1996 describing the results of the surface water investigation. The study included surface water and sediment sampling in the Arkansas River and its tributaries, including California Gulch.

The 1996 Groundwater RI (Hydrogeologic RI) included installation of monitoring wells and piezometers, water level measurements, and groundwater sampling and analysis. The objectives of the Hydrogeologic RI were to investigate groundwater quality and flow directions, evaluate potential impacts to surface water receptors, and characterize background qroundwater quality.

Denver and Rio Grande Western Railroad, another PRP at the Site, undertook RIs of seven major lead slag piles including the Elgin Smelter and Grant/Union Smelter sites and one zinc slag pile, the Western Zinc slag pile. The Zinc Slag RI was performed concurrent with the Lead Slag Pile RI. Investigation activities during these two RIs focused mainly on the slag material that may have the potential to leach metals.

In 1993, the EPA conducted a Screening Feasibility Study (SFS) to initiate the overall CERCLA FS process at the California Gulch Site. The purpose of the SFS was to develop general response actions and identify an appropriate range of alternatives applicable to the various contaminant sources to be considered during feasibility studies for the California Gulch Site. Remedial alternatives retained in the SFS for tailing, flue dust, and non-residential area soils in OU5 for the AV/CZL sites were further evaluated and screened during an FFS. The 2000 OU5 AV/CZL FFS provided a detailed analysis of the five retained alternatives from the SFS as applied to tailing, flue dust, and non-residential soils. The 1999 OU5 EGWA FS provided a detailed analysis of the two retained alternatives from the SFS as applied to slag and four alternatives from the SFS for non-residential area soils. IC were included in the feasibility studies for OU5 to provide future protectiveness.

The Proposed Plan describing the EPA's preferred alternatives was issued on July 27, 2000. The preferred alternative for the AV/CZL sites was Alternative 3, Consolidation/Containment (Flue Dust Repository and Soil Cover). For the EGWA sites, the preferred alternative was Alternative 2, Institutional Controls.

OU5 Selected Remedy

The EPA issued two RODs for OU5. The ROD for the AV/CZL sites on OU5 was issued on September 29, 2000. The ROD for the EGWA sites on OU5 was issued on October 31, 2000.

The RAOs established in the two RODs for OU5 include: (1) Control airborne transport of tailing particles, flue dust and soil, (2) Control erosion of tailing, flue dust and contaminated materials into local water courses, (3) Control leaching and migration of metals from tailing, flue dust and soil into surface water, (4) Control leaching and migration of metals from tailing, flue dust and soil into groundwater, (5) Control contamination exposure to humans, animals and aquatic life, and (6) Prevent direct exposure of population to elevated contaminant levels in surficial soil.

The remedy selected for the AV/CZL sites consisted of: (1) Excavation of flue dust and relocation to a single-lined, fully encapsulated repository, (2) Consolidation of tailing and non-residential soils and placement of an 18-inch vegetated soil cover over the consolidated pile, (3) Implementation of ICs such as deed notices or deed restrictions to provide notification that a barrier is in place and to restrict land uses incompatible with the remedy, and (4) Development of an O&M program during remedial design to include inspection and maintenance of the cover and surface water controls, as well as inspection for evidence of erosion, differential settlement of the cover and adequacy of vegetation.

The remedy selected for the EGWA sites consisted of implementation of ICs to warn of potential hazards and to maintain the effectiveness of the remedy by limiting access to or use of the property for current or potential future land use scenarios.

OU5 Cleanup Standards

The 2000 OU5 RODs for the EGWA sites and AV/CZL sites did not contain numeric cleanup standards, but were meant to address potential source material contributing to surface water and groundwater contamination. The OU12 remedy addresses site-wide surface water and groundwater contamination.

OU5 Response Actions

Implementation of the 2000 OU5 ROD for the AV/CZL sites began in June 2002. Some smelter structures were demolished, flue dust was excavated and the contaminated materials were transported to an on-site repository. Tailing and contaminated soil were consolidated on site and placed under eighteen inches of clean soil cover which was then vegetated. Diversion ditches to prevent run-on and ponding on the consolidated waste pile were also constructed. Remedial actions were initiated by ASARCO, but discontinued when ASARCO filed for bankruptcy. The EPA assumed lead responsibility for implementation of the remedy at OU5 through a settlement agreement signed between ASARCO and the federal government in 2008. The EPA completed AV/CZL OU5 remedial action in 2010. Both the OU5 RODs for the EGWA sites and the AV/CZL sites included implementation of ICs as part of the remedy. Lake County has adopted a local ordinance as an IC for the EGWA sites and AV/CZL sites. See the OU5 and OU7 Operations and Maintenance section below for information regarding O&M and ICs in OU5.

OU7 Background and History

OU7, the Apache Tailing Impoundments, consisted of four distinct tailing impoundments located on the southern edge of the City of Leadville adjacent to U.S. Highway 24. These impoundments are located in California Gulch, approximately 1,500 feet downstream from the Yak Tunnel Water Treatment Plant surge pond. A map of OU7 can be found in the docket at http://www.regulations.gov under Docket ID no. EPA-HQ-SFUND-1983-0002. Tailing, placed in the Main Impoundment and possibly the North Impoundment, was generated by a mill located on the hillside northeast of the Apache Tailing Impoundments known alternately as the Venir Mill, the California Gulch Mill, and the ASARCO Leadville Milling unit. The available historical information indicates that this mill operated between 1939 and 1956, producing approximately 630,000 cubic yards of tailing in the 11.3-acre Main Impoundment and an estimated 14,500 cubic yards of tailing in the 1.8-acre North Impoundment.

Apache Energy and Minerals Company operated the Apache Mill from the late 1970s into the 1980s. The Apache Mill reprocessed tailing from the Main Impoundment and deposited the remaining materials into Tailing Ponds No. 2 and No. 3, which were located west and downstream of the Main Impoundment and were about 1.5 and 0.5 acres in size, respectively. Tailing Ponds No. 2 and No. 3 were consolidated into the Main Impoundment under a removal action in 1997.

For human health risk issues at OU7, the Preliminary BRA and the Final BRA Part C, Evaluation of Worker Scenario and Evaluation of Recreational Scenarios, were most pertinent. The Preliminary BRA indicated that lead and arsenic are responsible for the majority of human health risks at the Site. Therefore, arsenic and lead were used as

indicator contaminants for risk in the Final BRA. Residential use of OU7 does not currently occur, nor is future residential use reasonably anticipated. Commercial, industrial, and recreational uses are expected at OU7. Therefore, commercial and industrial workers and recreational visitors were considered as groups that were potentially at risk. The Final BRA identified soil ingestion as the exposure pathway of concern for recreational visitors and ingestion of soil and dust was identified as the exposure pathway of concern for commercial/industrial workers. Exposure to other media (e.g., slag piles) and exposure to soil/dust through other pathways (e.g., dermal) are considered an insignificant concern for workers and recreational users. The OU7 investigations showed that the concentrations of lead and arsenic in the surficial tailing were below risk-based action levels for both the commercial/industrial land use scenarios (lead 6,100 mg/kg- 7,700 mg/kg and arsenic 610 mg/kg – 690 mg/kg) and the recreational land use scenario (lead 16,000 mg/kg and arsenic 1,400 mg/kg - 3,200 mg/kg) identified in the Final BRA. Therefore, the exposed tailing did not pose a significant risk to human health.

For ecological risks at OU7, the BARA and the ERA were the most pertinent. The BARA characterized the impacts of mine waste contamination on the aquatic ecosystem of the Site. Results of the BARA indicate that mine waste poses potential unacceptable risk to all aquatic species. The BARA states that Apache Tailing Impoundments as well as other sources such as high metal waste rock piles, contribute to the metals entering California Gulch and, ultimately, the Arkansas River. Potential risks to the terrestrial ecosystem from mine waste contamination were characterized in the ERA. Risks to the blue grouse, mountain bluebird, and least chipmunk exceeded EPA acceptable levels for

exposure to contaminants in tailing. Potential risks to plants and soil fauna from exposure to tailing were also indicated. Surface water ingestion may also result in a potential risk of some effect to terrestrial receptors. Action levels were not developed for terrestrial receptors. Thus, these releases of contaminants from OU7 presented an unacceptable risk to aquatic and terrestrial ecological receptors and response actions were necessary at OU7 to control the release of contaminants and acidic water into the environment.

OU7 Remedial Investigations and Feasibility Study (RI/FS)

The State, EPA and certain PRPs conducted various studies and investigations to evaluate the nature and extent of contamination within the Site generally and OU7 specifically. RIs that specifically addressed OU7 included the Tailing RI performed in the fall of 1991, a Supplemental RI conducted in 1996 and 1997 to respond to questions and issues that arose in response to the Draft Apache Tailing FS, issued in January 1996 and additional RI work performed between 1997 to 1999 that was reported in the final FFS (2000 FFS). The 2000 FFS assessed the general conditions of the Apache Tailing Impoundments area, evaluated and summarized the nature and extent of contamination within OU7, and evaluated remedial alternatives to address the risks and conditions identified at OU7.

The various RI studies concluded that loading from OU7 to groundwater (and not surface water) was the dominant process by which contaminants moved from OU7. This groundwater provides some loading to surface water downstream from OU7, which drains to California Gulch and ultimately to the Arkansas River.

Selected Remedy

The EPA issued the ROD for OU7 on June 6, 2000. The OU7 remedy was selected to eliminate or reduce potential threats to humans and the environment through the construction of a soil cover with a geosynthetic barrier and revegetation followed by implementation of ICs and a long-term monitoring plan.

The RAOs identified in the OU7 ROD for the Apache Tailing Impoundments were: (1) Control airborne transport of tailing particles; (2) Control erosion of tailing materials and deposition into local water courses; and (3) Control leaching and migration of metals from tailing into surface water and groundwater.

The selected remedy for OU7 included: (1) Surface water controls including the channelization of California Gulch through the southern portion of the Main Impoundment and diversion ditches to provide surface water run-on and runoff control; (2) Application of source surface controls to the impounded tailing, consisting of regrading the impoundment, placement of a multi-layer composite cover over the combined tailing area, and revegetating the covered surface; (3) ICs to warn of potential hazards and to maintain the effectiveness of the remedy by limiting access to or use of the property (current and future use scenarios) including temporary and permanent measures; and (4) A long-term monitoring program to assess the quality of surface water and groundwater following implementation of the remedy. The O&M Plan includes inspection and maintenance of the cover and surface water controls, including evidence of erosion, differential settlement of the cover, and vegetation monitoring.

Remedial action included: (1) Installation and maintenance of temporary sediment, diversion and storm water control structures in accordance with the Storm Water Management Plan and maintenance of such controls during construction activities;

(2) Provision of dust control, as necessary, during all excavating, hauling, and placing operations; (3) Excavation of dispersed tailing and soil adjacent to the Main Impoundment to allow for the construction of temporary sedimentation ponds; (4) Demolition of the existing concrete foundations to the west of the Main Impoundment; (5) Relocation of a section of sanitary sewer line around the North Impoundment, connection to an existing sewer line at the east and west ends including two new sewer lateral connections, and abandonment of existing manholes and sewer line; (6) Regrading of the tailing impoundments as indicated on the drawings and placement of excavated material in fill areas between the Main and North Impoundments and on top of the Main Impoundment; (7) Removal and replacement of the overhead power line running east and west between the Main and North Impoundments; (8) Channelization of California Gulch through the southern portion of the Main Impoundment; (9) Installation of the multi-layer cover system consisting of a geosynthetic clay liner, geocomposite drainage layer, and an 18-inch soil cover over the regraded tailing impoundments; (10) Construction of permanent diversion ditches, berms and swales with appropriate erosion protection to provide surface water run-on and runoff control; (11) Extension or abandonment of monitoring wells or piezometers as necessary; (12) Revegetation of the tailing impoundments and other disturbed areas with specified seed mixture; and (13) Site cleanup and demobilization. ASARCO's Construction Complete Report is dated December 12, 2003. The long-term monitoring of water quality in OU7 is performed as part of the Site-wide Water, OU12 remedy.

OU7 Cleanup Standards

The 2000 OU7 ROD did not contain numeric cleanup standards but intended to address air transport of tailing material, erosion of tailing material in local waters, and potential source material contributing to surface water and groundwater contamination at the Site.

OU7 Response Actions

Multiple removal actions were conducted at OU7 between 1996 and 2000, including removal of Tailing Ponds No. 2 and No. 3, consolidation of material removed from Tailing Ponds No. 2 and No. 3 on the Main Impoundment, and placement of erosion protection along the toe of the southwest embankment of the Main Impoundment below the clay-tile culverts and wooden box culvert outfalls. The December 1997 Removal Action Completion Report describes the construction activities in detail.

OU5 and OU7 Operation and Maintenance

Per the 2008 CD settlement, ASARCO was relieved from the responsibility for implementing O&M activities at OU5 and OU7. The State is performing the O&M for OU5 and OU7 under an agreement with EPA. The State performs annual O&M monitoring, and periodic inspection and maintenance of the soil cover and surface water control features of OU5 and OU7. The O&M Plan was completed on March 20, 2014. O&M monitoring and maintenance occurs annually as directed by the O&M plan.

Lake County, on December 22, 2010 for OU7 and April 15, 2013 for OU5, and the City of Leadville, on May 7, 2013 for OU7, implemented ICs in the form of local ordinances, resolutions amending the Land Development Codes and adopting regulations that protect both engineered and non-engineered remedies at OU5 and OU7. A best management practice handout is provided to all applicants applying for a building permit

withinOU5 and OU7. In addition, any disruptions of engineered or non-engineered remedies, and/or excavation of more than 10 cubic yards of soil off-site within OU5 and OU7 require written approval from the CDPHE.

Five-Year Review

The remedies at the entire Site, including OU4, OU5 and OU7 require ongoing five-year reviews in accordance with CERCLA section 121(c) and § 300.430(f)(4)(ii) of the NCP. The next five-year review for the California Gulch Site is planned for 2017.

In the 2012 five-year review dated September 27, 2012 for the Site, the OU4 remedy was determined to be protective in the short-term. However, there were concerns regarding continued long-term protectiveness because the requirement of ICs was not documented in a decision document, however ICs had already been implemented by the PRP and Lake County. An ESD dated July 29, 2013 resolved this concern. Environmental covenants for Resurrection/Newmont's properties within OU4 were recorded with the Lake County Clerk and Recorder on July 31, 2012 and October 10, 2012. On December 22, 2010, Lake County implemented ICs for all the property in OU4 in the form of a local ordinance, a resolution amending the Lake County Land Development Code and adopting regulations that protect both engineered and non-engineered remedies at OU4.

In the 2012 five-year review for the Site, the OU5 and OU7 remedies were determined to be protective in the short-term. However, there were concerns regarding continued long-term protectiveness because an O&M Plan was not in place. The State developed an O&M Plan for OU5 and OU7, which EPA accepted on March 20, 2014. O&M monitoring and maintenance is occurring annually under the O&M plan.

Pursuant to CERCLA section 121(c) and the NCP, EPA will conduct the next five-year review by September 27, 2017 to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

Community Involvement

Public participation activities have been satisfied as required in CERCLA section 113(k), 42 U. S. C. 9613(k) and CERCLA section 117, 42 U. S. C. 9617. During the courses of these operable units, comment periods were offered for proposed plans, five-year reviews, and other public meetings. The documents that the EPA relied on for the partial deletion of OU4, OU5, and OU7 from the California Gulch Superfund Site, are in the docket and are available to the public in the information repositories. A notice of availability of the Notice of Intent for Partial Deletion has been published in the Leadville Herald Democrat to satisfy public participation procedures required by 40 CFR 300.425 (e)(4).

The State, the Lake County Commissioners, the City of Leadville are supportive of the partial deletion of OU4, OU5 and OU7.

Determination that the Criteria for Deletion have been Met

EPA has consulted with the State, Lake County Commissioners, and the City of Leadville on the proposed partial deletion of OU4, OU5, and OU7 of the California Gulch Site from the NPL prior to developing this Notice of Partial Deletion. Through the five-year reviews, EPA has also determined that the response actions taken are protective of public health or the environment and, therefore, taking of additional remedial measures is not appropriate.

The implemented remedies achieve the degree of cleanup or protection specified in: for OU4, the 1995 and 1996 Non-Time Critical Removal Actions, the 1998 OU4 ROD, 2004 OU4 ESD and 2013 OU4 ESD; for OU5, the 2000 OU5 RODs for the EGWA and AV/CZL sites; and for OU7, the 1996 and 1997 Non-Time Critical Removal Actions and the 2000 OU7 ROD.

All selected removal and remedial action objectives and associated cleanup goals for OU4, OU5 and OU7 are consistent with agency policy and guidance. This partial deletion meets the completion requirements as specified in OSWER Directive 9320.22, Close Out Procedures for National Priority List Sites. All response activities at OU4, OU5, and OU7 of the Site are complete and the three operable units pose no unacceptable risk to human health or the environment. Therefore, EPA and CDPHE have determined that no further response is necessary at OU4, OU5, and OU7 of the Site.

V. Partial Deletion Action

The EPA, with concurrence of the State through the CDPHE has determined that all appropriate response actions under CERCLA, other than operation, maintenance, monitoring and five-year reviews, have been completed. Therefore, EPA is deleting all of OU4, Upper California Gulch; OU5, ASARCO Smelters/Slag/Mill Sites; and OU7, Apache Tailing Impoundment of the Site.

Because EPA considers this action to be non-controversial and routine, EPA is taking it without prior publication. This action will be effective [insert date 60 days from the date of publication in the *Federal Register*] unless EPA receives adverse comments

by [insert date 30 days from the date of publication in the *Federal Register*]. If adverse comments are received within the 30-day public comment period, EPA will publish a timely withdrawal of this direct final notice of partial deletion before the effective date of the partial deletion and it will not take effect. EPA will prepare a response to comments and continue with the deletion process on the basis of the notice of intent to partially delete and the comments already received. There will be no additional opportunity to comment.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous waste, Hazardous substances, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Dated: July 31, 2014.

Shaun L. McGrath,
Regional Administrator,
Region 8.

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