

SUPERFUND PRELIMINARY SITE CLOSE OUT REPORT

Montana Pole and Treating Plant Butte, Montana September 2001

I. INTRODUCTION

The purpose of this Preliminary Site Close Out Report is to document the completion of construction activities at the Montana Pole and Treating Plant Superfund Site in accordance with ***Close Out Procedures for National Priorities List Sites*** (OSWER Directive 9320.2-09A-P). The Montana Department of Environmental Quality (DEQ) and EPA conducted a pre-final inspection of the Site, located at 220 West Greenwood Avenue, Butte, Montana, on July 26, 2001 and determined that the site remedy has been constructed in accordance with the Remedial Design specifications. DEQ and EPA have initiated the activities necessary to achieve performance standards and site completion.

II. SUMMARY OF SITE CONDITIONS

Location

The Montana Pole and Treating Plant (MPTP) site is located at 220 West Greenwood Avenue, on the western edge of Butte, Montana, (population approximately 33,892) in the southeast quarter of Section 24, T3N, R8W (see Figures 1 and 2). Generally, the site is bordered on the north by Silver Bow Creek, on the south by Greenwood Avenue, on the west by a former smelter site and on the east by a railroad right-of-way. U.S. Interstate 15/90 runs through the site in an east-west direction and divides the site into a north and a south section. Portions of the site lie within the 100-year floodplain of Silver Bow Creek and its tributaries. The Lower Area One (LAO) Operable Unit of the Butte/Silver Bow Creek Superfund site bounds the site on the north.

The MPTP site is located in a mixed land use area. Land in the vicinity of the site has been used industrially, usually associated with past and present mining activities, although commercial and residential areas are immediately adjacent. Two neighborhoods are within a quarter mile of the MPTP site.

Site History

The Montana Pole and Treating Plant operated as a wood treating facility from 1946 to 1984. During most of this period, a solution of five percent pentachlorophenol (PCP or “penta”) mixed with petroleum carrier oil similar to diesel was used to preserve poles, posts and bridge timbers. The PCP solution was applied to wood products in butt vats and pressure cylinders (retorts). Creosote was used as a wood preservative for a brief period in 1969.

The plant initially included a pole peeling machine, two butt treating vats, and related ancillary facilities. In April 1947, the first load of treated timbers was shipped off-site. Major modifications to the plant occurred between 1949 and 1951, and again around 1956. Sometime between 1949 and 1951, a 73-foot-long, 6-foot-diameter retort was installed to increase timber treatment production efficiency. A second retort, which was 66 feet long and 7 feet in diameter, was installed around 1956. The retorts were used both to dry green timber using the Boulton process, and to pressure treat timber with a petroleum/pentachlorophenol mixture. Drying timber by the Boulton process generated steam which was condensed. The condensate was discharged to two hot wells where the condensate partially separated into an oil and water phase. The water phase from the hot wells was reportedly discharged into an on-site unlined drainage ditch which flowed northward toward Silver Bow Creek. On-site sedimentation ponds were also apparently used for waste disposal purposes.

The retorts and butt treatment vats were in continuous operation until May 1969. On May 5, 1969, an explosion occurred while a charge of poles was being treated in the east butt treating vat. The explosion generated a fire which destroyed the east vat, boiler room, and retort building. Although the boiler, retorts, and auxiliary equipment were damaged, the plant was rebuilt and functional by December 1969. The west butt treatment vat was not destroyed by the fire and was thereafter used for some timber treatment and mixing the petroleum/PCP product used in the retorts. Petroleum/PCP product reportedly spilled from the east butt treating vat as a result of the explosion and fire. Additional seepage of product occurred from both retorts as a result of broken pipes and valves damaged by the fire. Reportedly, on-site tanks were not ruptured as a result of the fire.

A small on-site sawmill was constructed in the fall of 1978 and was fully operational by the fall of 1979. Additionally, in response to implementation of the Resource Conservation and Recovery Act (RCRA), a closed-loop process water system was constructed in 1980. The primary function of this system was to eliminate overland discharges of water generated from the drying of green timber. The closed-loop water recovery system operated by collecting wastewater in storage tanks, recirculating this water through the condensing system, and evaporating excess water using aeration sprays.

In March 1983, a citizen filed a complaint concerning oil seeping into Silver Bow Creek near the Montana Pole facility. The Montana Department of Health and Environmental Sciences (MDHES) which is now the Department of Environmental

Quality (DEQ), investigated the complaint and discovered an oil seep on the south side of Silver Bow Creek directly downgradient from the Montana Pole facility. Further investigation of the site revealed oil-saturated soils adjacent to the creek and on Montana Pole property. Subsequent sampling confirmed the presence of PCP, polycyclic aromatic hydrocarbons (PAHs), and dioxins/furans in site soils and oil samples. MDHES and EPA completed a preliminary assessment and site inspection (PA/SI) followed by a Hazard Ranking Score in July 1985. The Montana Pole facility was included on the National Priorities List for Superfund sites on July 22, 1987 (Fed. Reg. Vol. 52, 140 Pg. 17623).

On May 17, 1984, the Montana Pole and Treating Plant ceased operations and abandoned its RCRA permit and responsibilities. The corporation and its operators had few financial assets.

In July 1985, the EPA Emergency Response Branch began conducting a removal action on the site to minimize impacts to Silver Bow Creek and to stabilize the site. EPA excavated approximately 6,000 cubic yards of highly contaminated soils, bagged them and placed them in storage buildings constructed on site. Tanks, retorts, pipes and other hardware were dismantled and stored on site in a former sawmill building. Two groundwater interception/oil recovery systems were installed to alleviate oil seepage into the creek. Contaminated areas of the site and features of the groundwater recovery system were fenced to restrict public access. Fencing was later improved.

EPA granted DEQ the initial enforcement funding to conduct potentially responsible party (PRP) noticing and administrative order negotiations and issuance in October 1989. In April 1990 DEQ signed an administrative order on consent with ARCO (PRP) under which ARCO agreed to conduct a remedial investigation and feasibility study (RI/FS) at the site. ARCO began the RI/FS following the DEQ and EPA approved RI/FS work plan in June 1990. The remedial investigation complied with federal Superfund law, defined the nature and extent of contamination and provided information to complete the baseline human health and ecological risk assessments. The feasibility study included the development, screening and evaluation of potential site remedies.

EPA proposed an additional removal action in June 1992 to control and recover the light non-aqueous phase liquid (LNAPL) (floating oils) identified during the RI. The action included the installation of 890 feet of sheet piling on the south side of Silver Bow Creek. The sheet piling was approximately 50 feet south of the creek. Ten recovery wells were installed on site. Eight of the wells were located south of Silver Bow Creek in a north/south line running perpendicular to the creek. Two wells were installed parallel to the creek, one on each end of the sheet piling. The wells were approximately 25 feet deep. Each well had two pumps: one to collect free-floating oil and pump it to an on-site storage tank and the other to pump contaminated groundwater to an on-site granular activated carbon treatment facility built by EPA. The water treatment facility went into

operation January 22, 1993, at which time the system installed in 1985 was shut down.

The United States filed a complaint against responsible parties in 1992. Under the terms of a Consent Decree between the U.S., the State of Montana and the responsible parties (e.g. ARCO, Burlington Northern Railroad and Inland Properties) entered by the U.S. District Court on July 16, 1996, the parties responsible for the cleanup of the Montana Pole site settled their liability and provided approximately \$35 million, deposited in an interest bearing account, for EPA and DEQ to conduct the site cleanup. Under the EPA/DEQ Site-Specific Superfund Memorandum of Agreement, DEQ, with assistance from EPA, is the lead agency and is conducting the cleanup at the site with funds from the Settlement Fund.

Components of the Selected Remedy

The contaminants of concern at the site are pentachlorophenol (PCP) and other chlorinated phenols, polynuclear aromatic hydrocarbons (PAHs), polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. The Record of Decision, issued on September 21, 1993, established cleanup levels for contaminants of concern at the site, as well as for other compounds (Tables 1 thru 4). The major components of the selected remedy as described in the 1993 ROD include:

1. Excavation of contaminated soils from accessible areas of the site, to the extent practicable. The volume of soils is estimated to be approximately 208,000 cubic yards;
2. Treatment of excavated soils (208,000 cubic yards approximately) and previously removed soils (6,000 cubic yards approximately) by above ground biological treatment;
3. In-place biological treatment of contaminated soils below the depth of excavation before backfilling;
4. Backfill of excavated and treated soils into excavated areas if possible, surface grading and revegetation;
5. Soil flushing of inaccessible soils areas (principally underlying Interstate 15/90) in order to recover hazardous substances;
6. Containment of contaminated groundwater and LNAPL using physical and/or hydraulic barriers (as determined during remedial design) in order to prevent the spread of contaminated groundwater and LNAPL and to limit releases of contamination into Silver Bow Creek;
7. Treatment of extracted groundwater using the water treatment plant (which consists of oil/water separation followed by granulated activated carbon

treatment). The ultimate design of the groundwater treatment system (as determined during remedial design) may include the addition of biological means or ultraviolet oxidation (UV/oxidation) to maximize cost effectiveness of the treatment system. Treatment will meet standards for discharge or reinjection, as appropriate;

8. Discharge of extracted, treated groundwater into Silver Bow Creek and/or reinjection of extracted, treated groundwater into the aquifer (as determined during remedial design);

9. Enhanced *in-situ* biological treatment of contaminated groundwater, inaccessible contaminated soils areas and contaminated soils not recovered by excavation;

10. Treatment of contaminated site debris and equipment by decontamination followed by disposal of these materials in a licensed off-site landfill;

11. Treatment of contaminated oils and sludges in a licensed off-site incinerator;

12. Institutional controls preventing access to contaminated soils and groundwater; and

13. Groundwater monitoring to determine movement of contaminants and compliance with remedial action requirements.

The ROD also states:

Once site remediation has effectively contained the contaminated groundwater and LNAPL, and releases to Silver Bow Creek have been effectively reduced or eliminated, it is expected that natural biodegradation and attenuation will effectively reduce the levels of organic contaminants in Silver Bow Creek, stream sediments and groundwater downstream of the site. These natural mechanisms will be relied upon to address the low level contamination found in this area.

Remedial Construction Activities

The MPTP cleanup was implemented in a number of phases. These phases are further described below. Camp Dresser & McKee (CDM) was under contract to DEQ to conduct engineering design, construction oversight and technical support at the MPTP site.

Phase 1 Construction

The design for Phase 1 of the Remedial Action was finalized in March 1996 (CDM, 1996). Construction occurred from April 1996 to November 1997. The primary activities completed during Phase 1 of the Remedial Action consisted of construction of the land treatment unit and Soil Staging and Pretreatment Piles, building an addition to the water treatment plant, construction of two groundwater recovery trenches, and removal of the north-side contaminated soils. Phase 1 required detailed coordination of numerous remedy components including:

1. Excavation of approximately 46,000 cubic yards of contaminated north-side soils and construction of aboveground biological treatment units. These units consist of 13 Soil Staging and Pretreatment Piles (SSPs) and a nine-acre biological land treatment unit (LTU). Air is added to the SSPs through a high volume vacuum system. Water and nutrients are also added through a drip irrigation system. The LTU is tilled by conventional farming techniques and watered with a center pivot irrigation system. Nutrients can be applied while tilling or via liquid fertilization with a center pivot irrigation unit.
2. Bioremediation to enhance the breakdown of contaminants by microorganisms through aeration and nutrient addition. The SSPs and the LTU both utilize soil bioremediation practices.
3. Processing and placing approximately 6,000 cubic yards of previously excavated contaminated soils onto the SSPs along with approximately 16,000 cubic yards of north-side contaminated soils. The land treatment unit was loaded with 30,000 cubic yards of contaminated soils.
4. Removal and replacement of the active railroad track located adjacent to Silver Bow Creek in order to excavate contaminated soils below the tracks.
5. Treating fluid or "Light Non-Aqueous Phase Liquid (LNAPL)" recovery and biological treatment of contaminated soils below the depth of excavation before backfilling with clean soil.
6. Construction of two recovery trenches. The Near Highway Recovery Trench is approximately 700 feet long and 22 feet deep. It was constructed north of Interstate 15/90 and was designed to recover LNAPL and groundwater. The Near Creek Recovery Trench was constructed at the north end of the site, south of Silver Bow Creek. This trench is designed to intercept all contaminated groundwater prior to leaving the site and is approximately 880 feet long and 20 feet deep.
7. Installation of a new oil/water separator to complement the existing

activated carbon treatment system in the water treatment plant addition. The water treatment plant is used for above-ground treatment of extracted groundwater. The treated water is either used for watering the SSPs or is discharged to Silver Bow Creek.

8. Treatment of contaminated oils and sludges in a licensed offsite hazardous waste incinerator.

9. Installation of infiltration basins in the north side clean backfill to further enhance microbial degradation of groundwater and any residual soil contamination.

Phase 2 Construction

The design for Phase 2 of the Remedial Action was finalized in February 1999 (CDM, 1998). Construction occurred from February 1999 to June 1999. Phase 2 of the remedial action consisted of the removal and disposal of hazardous and non-hazardous waste debris remaining on site. Off-site disposal methods included incineration and/or placement in hazardous and non-hazardous waste landfills. Metal debris was pressure washed and recycled. Phase 2 activities included the following:

1. Characterization of the site debris to determine disposal requirements. Debris was segregated into non-contaminated debris that could be placed in a non-hazardous waste landfill, hazardous debris that could be placed in a licensed hazardous waste landfill, asbestos containing debris, metal that could be pressure washed and recycled, and solid and liquid wastes that required off-site incineration.
2. Demolition of storage tanks. Sludges from the tanks were placed in drums and shipped to an incinerator. Tanks were cut up and pressure washed for off-site recycling.
3. Asbestos containing materials were tested to determine whether they were friable. Non-friable asbestos-containing wastes were shipped to a licensed hazardous waste landfill and friable asbestos-containing wastes were double-bagged and disposed of at the same hazardous-waste landfill.
4. Debris that could not be stabilized for hazardous-waste land disposal was incinerated off site along with the recovered sludges and oils.
5. Construction of a temporary pressure wash pad for cleaning metal prior to recycling.

Waste disposal volumes for Phase 2 activities included:

1. 1,036 cubic yards of uncontaminated debris disposed of in a non-hazardous waste landfill in Missoula, MT.
2. 3,224 tons of hazardous debris disposed of at an approved hazardous waste landfill in Idaho.
3. 300 tons of metals sent to a recycler.
4. 18 tons of hazardous sludges, solids, and oils treated at a licensed hazardous waste incinerator in Utah.

Phase 3 Construction

The design for Phase 3 of the Remedial Action was finalized in July 1999 (CDM, 1999). Construction occurred from September 1999 to September 2000. Phase 3 of the remedial action consisted of the south-side contaminated soils excavation, off-loading Phase 1-treated soils from the land treatment unit, placement of contaminated soil on the land treatment unit, installation the north and south *in situ* treatment systems, and the relocation of sewer and potable water lines.

Phase 3 activities included the following:

1. Excavation of approximately 148,000 cubic yards of contaminated soils and non-contaminated overburden from the south-side of the site and from accessible areas below the Interstate 15/90 bridges.
2. Screening and loading approximately 132,000 cubic yards of contaminated soil on the land treatment unit for treatment of soils.
3. Recovery of NAPL during all excavation activities. This was accomplished with the use of booms, a vacuum system and a rotating-drum skimmer. Approximately 20,700 gallons of LNAPL were collected during Phase 3.
4. Construction of *in situ* cells at the north and south end of the site to enhance bioremediation of contaminated groundwater and non-accessible contaminated soils. A gravel layer and perforated piping were installed to inject nutrients and oxygenated water back into the groundwater to enhance the biodegradation of any residual contamination.
5. Off-loading approximately 25,000 cubic yards of treated soils from the land

treatment unit and backfilling these soils in the north side excavation.

6. Placement of approximately 64,000 cubic yards of clean soils as backfill above the south-side *in situ* treatment systems.
7. Off-loading 27,000 cubic yards of Phase 3 soils from the land treatment unit. After 3 months of treatment on the LTU, the top 28-inch lift of soils was remediated to below the treatment criteria for pentachlorophenol and polynuclear aromatic hydrocarbons and was backfilled in the south excavation area.
8. Relocation of an existing community sewer line and construction of new sewer and potable water lines.

Phase 4 of this project consists of soil bioremediation, off-loading the LTU as surface soil lifts reach remediation levels. Treated soils will be placed over the south-side *in situ* system. SSPs meeting the cleanup criteria will also be dismantled and the treated soils backfilled on-site. Phase 4 activities began in April 2001 and are ongoing.

Phase 5 was originally developed to address flushing of the contaminated soils beneath Interstate 15/90 that divides the site, as required by the 1993 ROD. A study of options for removal of contamination from soil and groundwater has been conducted. The preferred method for enhanced contaminant recovery consists of changing hydraulic gradients by using the existing Near-Highway Recovery Trench and upgradient wells and the *in situ* system. Components of this phase are currently in place and operational.

Phase 6 will consist of removal and disposal of the soil treatment facilities on the south side of the site and final revegetation of all disturbed areas. At that time, DEQ expects to turn the site over to Butte/Silver Bow City/County government. Final land use at the site will be determined by Butte/Silver Bow with certain constraints on land use specified by EPA and DEQ consistent with the Montana Pole and Treating Plant Record of Decision.

Summary

To date, more than 52,000 cubic yards of soil have been successfully treated in the land treatment unit. Treatment of each of the first 2 lifts of these soils was obtained in one treatment season. Soil PCP concentrations in the heavily contaminated soils that were placed in the SSPs have been significantly reduced since being placed in the piles during Phase 1 activities. Performance data for the LTU, the SSPs and the water treatment plant are displayed in Tables 5 thru 7 and Figures 3 thru 11. Studies of the soil and ground water treatment systems have indicated that the technologies are capable of meeting cleanup goals.

The Interstate Highway that bisects the Montana Pole and Treating Plant site may be reconstructed within the next five years. Site soils that are being addressed by *in-situ* soil flushing may become accessible for excavation during highway reconstruction. If this occurs, the appropriate procedures will be employed to notify the public and implement the action.

Pre-Final Site Inspection

Phase 1 Remedial Action field activities were completed in November 1997, however the Remedial Design for the project anticipated additional soil removal from the contaminated zone during Phase 3. The ***Phase 1 Construction Report, Montana Pole and Treating Plant Site*** was prepared to document the construction activities that occurred during the first construction phase. The final site inspection to confirm that the Phase 1 construction was completed was held on November 18, 1997.

Phase 2 of the Remedial Action was completed in June 1999 and a Remedial Action Completion report was prepared and finalized. The ***Remedial Action Completion Report, Montana Pole and Treating Plant Site, Phase 2 - Debris Removal*** was prepared for DEQ by CDM, Inc. The final inspections to determine completion of Phase 2 construction activities were performed during the week of May 3rd, 1999.

Phase 3 of the Remedial Action was completed in September 2000, including the excavation and placement on the LTU of the remaining contaminated soils from the south side of the site. CDM, Inc., under contract to DEQ, designed and provided construction oversight for all three construction phases at the MPTP site. An inspection of the Phase 3 work was performed on September 29, 2000 and Phase 3 was determined to be complete. The ***Remedial Action Completion Report, Montana Pole and Treating Plant Site, Phase 3 - South Side Excavation*** was prepared by CDM, Inc. for DEQ to document construction activities in Phase 3. The Reports on all three phases of construction were placed in the MPTP document repository and the EPA Superfund Records Center in Helena, Montana.

A construction completion inspection of the Montana Pole and Treating Plant Site Remedial Action was performed on July 26, 2001 by Lauren Kelly and Jim Harris, P.E., the DEQ and EPA Project Managers responsible for the Remedial Design and implementation of the Remedial Action. Also present for the inspection were representatives of CDM, Inc. and the Montana Bureau of Mines and Geology (MBMG), the site services contractor. The inspection included a site visit and a review of operational data for the groundwater treatment system, the Land Treatment Unit and the SSPs. The inspection results confirmed that the remedial systems have been constructed as designed and continue to be operated in accordance with the December 2000 ***Site-Wide O&M Manual for the Montana Pole and Treating Plant Site*** prepared for DEQ by CDM, Inc. All construction activities were determined to be

complete during this inspection.

III. DEMONSTRATION OF CLEANUP ACTIVITY QA/QC

CDM, Inc., acting as contractor for DEQ, prepared the site Remedial Designs and provided engineering oversight for the Remedial Action Construction activities. DEQ and EPA reviewed all of the design and construction documents.

Remedial Action (RA) construction activities at the Site were completed in conformance with the 1993 ROD and all Remedial Action Work Plans. DEQ and EPA representatives were present at the site on at least a weekly basis during construction activities. CDM provided daily oversight of all construction activities. EPA Quality Assurance/Quality Control (QA/QC) procedures were followed during Remedial Action Construction and during the collection of monitoring data. Soil and ground water sampling were performed in accordance with EPA's "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (SW846)". Only EPA methods were used for data validation and sample analysis during RA Construction activities.

The QA/QC program utilized throughout RA Construction was sufficiently rigorous and was adequately implemented to enable DEQ and EPA to determine that analytical results were accurate to the required level to assure satisfactory execution of RA Construction consistent with the ROD and RD plans and specifications.

IV. ACTIVITIES AND SCHEDULE FOR SITE COMPLETION

Bioremediation technologies are used at the Montana Pole and Treating Plant Site for cleanup of both contaminated soils and contaminated ground water. Although physical construction of the remedy has been completed and the bioremediation processes are operating as designed, all of the ROD cleanup levels have not been achieved. Studies of the soil and ground water treatment systems have indicated that the technologies are capable of meeting cleanup goals (Tables 5 thru 7).

The ROD cleanup level for dioxins (Total TCDD Equivalents) have not been met by biological treatment on the LTU. This result was contemplated in the March 1993 Feasibility Study and the 1993 ROD (Responsiveness Summary).

Because the dioxin cleanup level in soils has not been met on the LTU, DEQ and EPA have determined that treated soils (soils having reached the PCP and PAH remediation levels) should be placed within the excavated area on top of clean fill extending at least one foot above the historical high groundwater mark, and the treated backfilled soils should be covered with at least one foot of clean fill to eliminate the direct contact risk.

DEQ is conducting both an analytical solution and modeling to evaluate the

potential for dioxins to leach to groundwater (CDM, 2000). Preliminary results indicate that for a 100-year time frame, dioxins would not significantly leach, thus groundwater dioxin concentrations would not be above the 1993 ROD cleanup level. This is not surprising given the immobile, hydrophobic nature of dioxins. Also, water treatment plant influent concentrations in December 1999 showed that although LNAPL remains on the groundwater underneath the I-15/90 portion of the site, the dioxin concentration in water treatment plant influent is below the cleanup level.

The **Site-Wide O&M Manual, Montana Pole and Treatment Plant Site** for the soil and groundwater components of the remedy, prepared by CDM, Inc., has been approved by DEQ and EPA and is currently being used to direct the Long Term Remedial Actions of bioremediation of groundwater and soils.

The Remedial Action will not be complete until cleanup goals specified in the 1993 ROD are achieved and a Remedial Action Completion Report is prepared and approved by DEQ and EPA.

Additional activities that remain for Site Completion include O&F (Operational & Functional) Period determination, Facility Demobilization, Final Inspection, Remedial Action Completion Report approval, Final Close Out Report approval and NPL Deletion. The estimated time period for completion of the groundwater remedy from the 1993 Record of Decision was at least 10 years, however, due to the uncertainties of ground water cleanup, completion dates for the above tasks may extend further into the future.

Activities will be completed according to the following anticipated schedule:

Task	Estimated Completion	Responsible Organization
Manage LTU	09/30/04	DEQ/EPA
Interim RA Report	12/30/04	DEQ/EPA
2 nd Five-Year Review	06/29/06	DEQ/EPA
Continue to Operate Remedial Systems	ongoing	DEQ/EPA

3 rd Five-Year Review	06/29/11	DEQ/EPA
Complete Groundwater Treatment	09/30/13	DEQ/EPA
Pre-Certification Inspection	09/30/13	DEQ/EPA
Approve Final RA Report	12/31/13	DEQ/EPA
Approve Final Close Out Report	04/30/14	EPA
Deletion from NPL	09/30/14	EPA

V. Summary of Remediation Costs

The 1993 ROD estimate for the cost of the selected remedy was from \$27.53 million to \$55.2 million. Although a cost breakdown of the components of the selected remedy was provided in the 1993 ROD, the project has been implemented in a Phased manner, as described above. The cost estimates from the ROD are not easily compared with the phased approach selected for implementation of the MPTP remedial Action.

Funding for the Remedial Action at the MPTP site was provided through a settlement with the Responsible Parties. The settlement is embodied in Consolidated Civil Action No. 91-82-BU-PGH, entered in the District of Montana federal court in July 1996. The total amount of the settlement available to the United States and the State of Montana for implementation of the Remedial Action and for Operation and Maintenance of the remedy was \$35.07 million which was placed in an account established in accordance with the settlement.

The following costs are associated with each phase of the Remedial Action and include design, construction and engineering oversight. In addition to the costs listed below, additional expenditures have been made for site services provided by the Montana Bureau of Mines and Geology under contract to DEQ. Site services include water treatment plant operation, LTU and SSP operation, ground and surface water sampling and other maintenance activities.

Phase 1 - LTU/SSP construction, WTP addition, interceptor trench construction and soil excavation - \$10.6 million.

Phase 2 - Debris removal and disposal - \$857,000.

Phase 3 - South side excavation, *in-situ* system construction and LTU activities - \$3.27 million

Phase 4 - LTU/SSP management activities - \$274,000 (to date)

Phase 5 - Soil Flushing Evaluation for beneath I15/90 - \$22,000 (to date)

Phase 6 - Future decommissioning of treatment facilities - Future activity.

Under the Consent Decree, if funds remain in the Settlement Account at the conclusion of the Remedial Action and Operation and Maintenance, and after adequate provision for future obligations of the State with respect to the site, then funds (up to the amount of unreimbursed past response costs for the site), will be transferred to the Hazardous Substances Trust Fund.

VI. Five Year Reviews

The Montana Department of Environmental Quality (DEQ) will conduct Five-Year reviews of the site in accordance with Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. Section 9601, et seq. (SARA), and Section 300.430 (f) (4) (ii) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). As described in these laws and regulations, a Five-Year Review is required when EPA selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining on-site at levels that do not allow for unlimited use and unrestricted exposure.

The first Five-Year review was conducted during the 3rd quarter of federal fiscal year 2001. The ***First Five-Year Review Report for the Montana Pole and Treating Plant Site*** is dated June 29, 2001. The review was conducted in accordance with OSWER Directive 9355.7-03B-P, ***Comprehensive Five-Year Review Guidance***, draft, October 1999. The remedy was determined to be operating as designed and protective of human health and the environment.

VII. Conclusion

Construction of all the physical elements for the remedy contemplated in the 1993 Record of Decision (ROD) for the Montana Pole Site is now complete. All immediate threats have been addressed and all long-term threats are under control. Prefinal inspections for these physical components of the remedy (Phases 1-3) have been conducted. However, the remedial action is not complete. Operation of the Land Treatment Unit (LTU) will continue until all contaminated soils placed on the LTU are treated to cleanup levels. The Site will be operating in Long Term Response Action (LTRA) mode for many years until the groundwater cleanup goals specified in the ROD are achieved. Recategorization of the Site as a construction completion site is consistent with the EPA Guidance: ***Close Out Procedures for National Priorities List Sites, January 2000.***

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Date

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