ATTACHMENT F
EXAMPLE

This document has been prepared to provide an example of an environmental requirements, criteria or limitations (ERCLs) analysis prepared to meet the requirements of the Voluntary Cleanup and Redevelopment Act (VCRA), which requires that the proposed remedy meet the requirements of §§ 75-10-721(2)(a) and (b), Montana Code Annotated (MCA). DEQ has included the ERCLs that have been identified in previous voluntary cleanup plans (VCPs) or other remedial actions. Therefore, the conditions described as being in the fictitious VCP under the VCP Compliance sections of this example may not be consistent with one remedy but are meant as examples of how various remedies might comply with the ERCLs identified. In addition, it is possible that some of these ERCLs might not apply to a remedy or that additional ERCLs may apply. It is the responsibility of the VCP applicant to identify laws that apply to the remedial actions and comply with those laws.

The introductory text that follows should be included at the beginning of the ERCLs section of the VCP with the VCP-specific bracketed information completed.

ENVIRONMENTAL REQUIREMENTS, CRITERIA OR LIMITATIONS ANALYSIS

Remedial action undertaken pursuant to the Comprehensive Environmental Cleanup and Responsibility Act (CECRA), § 75-10-701, *et seq.*, MCA, must "attain a degree of cleanup of the hazardous or deleterious substance and control of a threatened release or further release of that substance that assures protection of public health, safety and welfare and of the environment." Section 75-10-721(1), MCA. Additionally, the Montana Department of Environmental Quality (DEQ) "shall require cleanup consistent with applicable state or federal environmental requirements, criteria, or limitations" and "may consider substantive state or federal environmental requirements, criteria or limitation that are relevant to the facility conditions." Sections 75-10-721(2)(a) and (b), MCA.

There is a distinction between "applicable" requirements and those that are "relevant." "Applicable" requirements are those requirements that would legally apply at the facility regardless of the CECRA action. "Relevant" requirements are those requirements that are not applicable, but address situations or problems sufficiently similar to those at the facility and, therefore, are relevant for use at the facility. Attainment of "applicable" requirements is mandatory under CECRA. "Relevant" requirements may be considered by DEQ in approving remedial actions under CECRA. All relevant requirements identified in the approved VCP must be attained.

ERCLs are generally of three types: action-specific, contaminant-specific, and location-specific. Action-specific requirements are those that are triggered by the performance of a certain activity as part of a particular remedy. They do not in themselves determine the remedy but rather indicate the manner in which the remedy must be implemented. Contaminant-specific requirements are those that establish an allowable level or concentration of a hazardous or deleterious substance in the environment or which prescribe a level or method of treatment for a

hazardous or deleterious substance. Location-specific requirements are those that serve as restrictions on the concentration of a hazardous or deleterious substance or the conduct of activities solely because the facility is in a specific location or the action affects specified types of areas. Some ERCLs could be categorized in more than one way; in this case, they are generally not duplicated within the document.

CECRA defines as cleanup requirements only state and federal ERCLs. Remedial designs, implementation, operation, and maintenance must, nevertheless, comply with all other applicable laws, both state and federal. Many such laws, while not strictly environmental, have environmental impacts. Identification of all applicable laws, including health and safety laws and local regulations that must be complied with during implementation of the voluntary cleanup plan, remains the VCRA applicant's responsibility.

Many requirements listed here are promulgated as identical or nearly identical requirements in both federal and state law, usually pursuant to delegated environmental programs administered by the Environmental Protection Agency (EPA) and the states, such as the requirements of the federal Clean Water Act and the Montana Water Quality Act. The preamble to the National Contingency Plan states that such a situation results in citation to the state provision as the appropriate standard, but treatment of the provision as a federal requirement. ERCLs and other laws that are unique to state law are also identified.

Identified within this document are applicable or relevant state and federal ERCLs for the proposed [Facility] VCP. The ERCLs contained in this document are tailored to the proposed VCP submitted and are intended to apply exclusively to this VCP dated [VCP Date]. If a different VCP or remedial action were proposed, preferred, chosen, or implemented for this facility, the ERCLs contained herein might be substantially different.

1.0 ACTION-SPECIFIC ERCLs

1.1 Water Quality Requirements

1.1.1 Clean Water Act, Point Source Discharges Requirements, 33 USC § ' 1342 (applicable, substantive provisions only): Section 402 of the Clean Water Act, 33 USC § ' 1342, *et seq.*, authorizes the issuance of permits for the discharge of any pollutant. This includes storm water discharges associated with industrial activity. *See*, 40 Code of Federal Regulations (CFR) 122.26(a)ii). Industrial activity includes inactive mining operations that discharge storm water contaminated by contact with or that has come into contact with any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations, *see*, 40 CFR 122.26(b)(14)(iii); landfills, land application sites, and open dumps that receive or have received any industrial wastes including those subject to regulation under Resource Conservation and Recovery Act (RCRA) subtitle D, *see*, 40 CFR 122.26(b)(14)(v); and construction activity including clearing, grading, and excavation activities, *see*, 40 CFR 122.26(b)(14)(x). Because the State of Montana has been delegated the authority to implement the Clean Water Act, these requirements are enforced in Montana through the Montana Pollutant Discharge Elimination System (MPDES). The MPDES requirements are set forth below.

Administrative Rules of Montana (ARM) 17.30.1201 *et seq.*, (standards) and ARM 17.30.1301 *et seq.* (permits) (applicable): If point sources of water contamination are retained or created by any remediation activity, applicable Clean Water Act standards would apply to those discharges. The State of Montana established state standards and permit requirements in conformity with the Clean Water Act, and these standards and requirements apply to point source discharges. *See* ARM 17.30.1201.

ARM 17.30.1342-1344 (applicable): The State of Montana has been delegated the authority to implement the Clean Water Act and these requirements are enforced in Montana through the MPDES. These regulations set forth the substantive requirements applicable to all MPDES and National Pollutant Discharge Elimination System permits. The substantive requirements, including the requirement to properly operate and maintain all facilities and systems of treatment and control, are applicable requirements.

Model VCP Compliance: A permit will be obtained prior to initiation of cleanup activities and the conditions of the permit will be met throughout the remediation. Therefore, the proposed remedy meets the requirements of this ERCL.

1.1.2 Montana Water Quality Act, §§ 75-5-101, *et.seq.*, MCA:

Section 75-5-605, MCA (applicable), prohibits causing pollution of any state waters. Pollution is defined as contamination or other alteration of physical, chemical, or biological properties of state waters which exceeds that permitted by the water quality standards or the discharge, seepage, or drainage of any substances into state water that will likely create a nuisance or render the water harmful, detrimental or injurious to public health, recreation, safety, or welfare, or to livestock or wild animals. Also, it is unlawful to place or cause to be placed any wastes where they will cause pollution of any state waters.

Section 75-5-303, MCA (applicable), states that existing uses of state waters and the level of water quality necessary to protect the uses must be maintained and protected. Section 75-5-317, MCA, provides an exemption from non-degradation requirements which allows changes of existing water quality resulting from an emergency action or reclamation that is designed to protect the public health or the environment and that is approved, authorized, or required by the department. Degradation meeting these requirements may be considered nonsignificant.

ARM 17.30.637 (applicable), prohibits discharges containing substances that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; or (e) create conditions which produce undesirable aquatic life.

ARM 17.30.705 (applicable), provides that for all state waters, existing and anticipated uses and the water quality necessary to protect these uses must be maintained and protected unless degradation is allowed under the non-degradation rules at ARM 17.30.708.

ARM 17.30.1011 (applicable), provides that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality unless degradation may be allowed under the principles established in Section 75-5-303, MCA and the non-degradation rules at ARM 17.30.701, *et seq.*

1.1.3 Stormwater Runoff Control Requirements

ARM 17.24.633 (applicable), provides all surface drainage from a disturbed area must be treated by the best technology currently available (BTCA).

ARM 17.30.1341 to 1344 (applicable) requires a storm water permit for storm water point sources. Generally, the permits require the permittee to implement best management practices (BMPs) and to take all reasonable steps to minimize or prevent any discharge which has a reasonable likelihood of adversely affecting human health or the environment. However, if there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with the activity, an individual MPDES permit or alternative general permit may be required.

Model VCP Compliance: As described in Section 5.1 of this VCP, remedial actions at the facility are not expected to result in runoff to surface water at the facility. Remedial actions will be halted if significant runoff is generated and will not resume until adequate runoff control measures are in place. Therefore, the VCP meets the requirements of this ERCL.

1.2 Air Standards

These standards, promulgated pursuant to section 109 of the Clean Air Act, 42 U.S.C. §§ 7401, *et seq.*, (applicable) are applicable to releases into the air from any cleanup activities.

Sections 75-2-101, *et seq.*, MCA, (applicable) provide that state emission standards are enforceable under the Montana Clean Air Act.

ARM 17.8.802 (applicable) incorporates by reference the air regulations in certain parts of CFR Title 40 regarding quality assurance requirements for prevention of significant deterioration air monitoring; standards of performance for new stationary sources; emission standards for hazardous air pollutants, and other standards and requirements.

ARM 17.8.805 (applicable) provides ambient air ceilings, and states that no concentrations of a pollutant shall exceed concentrations permitted under with the applicable secondary or the primary national ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.

ARM 17.8.204 (applicable) provides for ambient air monitoring and provides that, generally, all ambient air monitoring, sampling and data collection, recording, analysis and transmittal must be in compliance with the Montana Quality Assurance Manual.

ARM 17.8.220 (applicable) prohibits causing or contributing to concentrations of particulate matter in the ambient air such that the mass of settle particulate matter exceeds a 30-day average: 10 gm/m^2, 30 day average, not to be exceeded. A measurement method is also provided.

ARM 17.8.308 (applicable) provides that no person shall cause or authorize the production, handling, transportation or storage of any material; or cause or authorize the use of any street, road, or parking lot; or operate a construction facility or demolition project, unless reasonable precautions to control emissions of airborne particulate matter are taken.

ARM 17.8.308 (applicable) states that emissions of airborne particulate matter must be controlled so that they do not "exhibit an opacity of 20 percent or greater average over six consecutive minutes."

ARM 17.8.324 (applicable) contains certain standards regarding hydrocarbon emissions and the treatment, storage, and handling of petroleum products.

ARM 17.8.604 (applicable) lists certain wastes that may not be disposed of by open burning, including oil or petroleum products, RCRA hazardous wastes, chemicals and wood and wood byproducts that have been coated, painted, stained, treated or contaminated by foreign material. Any waste which is moved from the premises where it was generated and any trade waste (material resulting from construction or operation of any business, trade, industry or demolition project) may be open burned only in accordance with the substantive requirements of ARM 17.8.611 or 612.

ARM 17.24.761 (relevant) specifies a range of measures for controlling fugitive dust emissions during mining and reclamation activities. Some of the measures could be considered relevant to control fugitive dust emissions in connection with excavation, earth moving and transportation activities conducted as part of the remedy at the facility. Such measures include, for example, paving, watering, chemically stabilizing, or frequently compacting and scraping roads, promptly removing rock, soil or other dust-forming debris from roads, restricting vehicle speeds, revegetating, mulching, or otherwise stabilizing the surface of areas adjoining roads, restricting unauthorized vehicle travel, minimizing the area of disturbed land, and promptly revegetating regraded lands.

Model VCP Compliance: The proposed remedy does involve handling impacted soil. However, as described in Section 5.1 of this VCP, remedial actions at the facility will include wetting and other best management practices related to fugitive dust control. Remedial actions will be halted if significant dust is generated and will not resume until adequate dust control measures are in place. Dust control measures will ensure that air standards will not be exceeded during the proposed remedial action. Air monitoring is not a necessary component of the proposed remedial action. The proposed remedy will not result in emissions of the specific compounds included in these regulations. The proposed remedy does not involve the treatment,

storage or handling of petroleum products other than basic refueling of construction equipment. Therefore, the proposed remedy meets the requirements of these ERCLs.

1.3 Water Well Requirements

Sections 37-43-101 to 402, MCA (applicable) provides regulations and licensing for drillers or makers of water wells and monitoring wells.

Section 85-2-505, MCA (applicable) precludes the wasting of groundwater. Any well producing waters that contaminate other waters must be plugged or capped, and wells must be constructed and maintained so as to prevent waste, contamination, or pollution of groundwater.

Section 85-2-516, MCA (applicable) requires that, within 60 days after any well is completed, a well log report must be filed by the driller with the Montana Bureau of Mines and Geology.

ARM 36.21.801-809 (applicable) specifies requirements for constructing monitoring wells.

ARM 36.21.810 (applicable) specifies requirements that must be fulfilled when abandoning monitoring wells.

Model VCP Compliance: A licensed monitoring well constructor will abandon a monitoring well and install a monitoring well as part of the proposed remedy. The licensed monitoring well constructor will install the monitoring well in accordance with the construction standards and will complete a well log report and file it with the Montana Bureau of Mines and Geology. Monitoring wells will also be sampled as part of the proposed remedy. The well to be abandoned will be done so in accordance with ARM 36.21.810. These activities will be conducted in accordance with the requirements of these ERCLs.

1.4 Solid Waste Management Requirements

Montana Solid Waste Management Act and regulations, §§ 75-10-201, *et seq.*, MCA, ARM 17.50.101 *et seq.* (applicable) - Regulations promulgated under the Solid Waste Management Act, § 75-10-201, *et seq.*, MCA, and pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 *et seq.* (RCRA Subtitle D) specify requirements that apply to the to the transportation of solid wastes and the operation, closure and post-closure care of solid waste facilities:

ARM 17.50.523 (applicable) **s**pecifies that solid waste must be transported in such a manner as to prevent its discharge, dumping, spilling or leaking from the transport vehicle.

ARM 17.50.525 (applicable) specifies DEQ may inspect solid waste facilities at reasonable hours upon presentation of proper credentials.

ARM 17.50.1004 (applicable) addresses Class II landfills in floodplains.

ARM 17.50.1005 (applicable) prohibits placement of a Class II landfill in a wetland unless special conditions are met.

ARM 17.50.1006 (applicable) prohibits placement of a Class II landfill within 200 feet of a fault which has had displacement in Holocene time unless special conditions are met.

ARM 17.50.1007 (applicable) prohibits placement of a Class II landfill in a seismic impact zone (as defined in ARM 17.50.1002(35)) unless special conditions are met.

ARM 17.50.1008 (applicable) prohibits placement of a Class II landfill in an unstable area, which are defined in ARM 17.50.1002(40) as including locations that are susceptible to events or forces that are capable of impairing the integrity of the landfill structural components responsible for preventing releases from the landfill.

ARM 17.50.1009 (applicable) provides that a solid waste management facility must be located where a sufficient acreage of suitable land is available for solid waste management, including adequate separation of wastes from underlying groundwater and adjacent surface water. The facility may not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife or result in the destruction or adverse modification of critical habitat for those species. Also, the facility must manage solid waste, gas, and leachate.

ARM 17.50.1009 (applicable) requires that Class II landfills be designed, constructed, and maintained with a run-on and run-off control system to address 25-year storm events.

ARM 17.50.1110 (applicable) prohibits a Class II landfill from causing a discharge of a pollutant into state waters, including wetlands.

ARM 17.50.1116(2)(f) (applicable) requires that a solid waste management facility be designed, constructed, and operated in a manner to prevent harm to human health and the environment.

ARM 17.50.1204(1)(b) (applicable) requires that a Class II landfill be constructed utilizing a composite liner and leachate collection and removal system that is designed and constructed to maintain less than a 30-centimeter depth of leachate over the liner.

ARM 17.50.1205(3) (applicable) requires that the leachate system provide for accurate monitoring of the leachate level and provide a minimum slop at the base of the overlying leachate collection layer equal to at least two percent.

ARM 17.50.1303 (applicable) identifies requirements for groundwater monitoring.

ARM 17.50.1312 (applicable) identifies requirements for monitoring well abandonment.

ARM 17.50.1403 (applicable) sets forth the closure requirements for Class II landfills. This includes the requirement that the cap be a minimum of 24 inches thick and other criteria, as follows:

1. install a cover that is designed to minimize infiltration and erosion;
2. design and construct the final cover system to minimize infiltration through the

closed unit by the use of an infiltration layer that contains a minimum 18 inches of earthen material and has a permeability less than or equal to the permeability of any bottom liner, barrier layer, or natural subsoils or a permeability no greater than $1x10^{-5}$ centimeters per second (cm/sec), whichever is less; and

3. minimize erosion of the final cover by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant.

ARM 17.50.1404 (applicable) sets forth post closure care requirements for Class II landfills. Post closure care requires maintenance of the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the cover and comply with the groundwater monitoring requirements found at ARM Title 17, chapter 50, subchapter 13.

In addition, § 75-10-212, MCA, (applicable) prohibits dumping or leaving any garbage, debris, or refuse upon or within 200 yards of any highway, road, street, or alley of the State or other public property, or on privately owned property where hunting, fishing, or other recreation is permitted. However, the restriction relating to privately owned property does not apply to the owner, his agents, or those disposing of debris or refuse with the owner's consent.

Model VCP Compliance: Non-hazardous waste from this facility will be transported and disposed of at [insert the name of the disposal facility], a licensed solid waste management facility, in accordance with these ERCLs. Transport vehicles will be tarped and tied down to avoid any leaking of waste during transport. The impacted soil remaining onsite will not adversely affect human health or the environment as it will be located below the ground surface and as indicated in Section 3.8.3 it is not leaching contaminants to groundwater. Dumping is not part of the proposed action and the owner of the facility has consented to leaving impacted soil below five feet at the facility. Therefore, the proposed remedy meets the requirements of these ERCLs.

1.5 Hazardous Waste Management Requirements

1.5.1 RCRA, 42 U.S.C. §§ 6901 *et seq.*, (applicable, as incorporated by the Montana Hazardous Waste Act) and the Montana Hazardous Waste Act, §§ 75-10-401 *et seq.*, MCA, (applicable) and regulations under these acts establish a regulatory structure for the generation, transportation, treatment, storage and disposal of hazardous wastes. These requirements are applicable to substances and actions at the facility which involve the active management of hazardous wastes.

Wastes may be designated as hazardous by either of two methods: listing or demonstration of a hazardous characteristic. Listed wastes are the specific types of wastes determined by EPA to be hazardous as identified in 40 CFR Part 261, Subpart D (40 CFR 261.30 - 261.35) (applicable, as incorporated by the Montana Hazardous Waste Act). Listed wastes are designated hazardous by virtue of their origin or source, and must be managed as hazardous wastes regardless of the

concentration of hazardous constituents. Characteristic wastes are those that by virtue of concentrations of hazardous constituents demonstrate the characteristic of ignitability, corrosivity, reactivity or toxicity, as described at 40 CFR Part 261, Subpart C (applicable, as incorporated by the Montana Hazardous Waste Act).

40 CFR 261.31 defines F032 waste as:

> Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

Media at the facility is contaminated with pentachlorophenol from process residuals, preservative drippage, and spent formulations from a wood treating process that used chlorophenolic formulations. Therefore, the facility contains F032 listed hazardous wastes and the various media and wastes contaminated by the F032 wastes are hazardous wastes pursuant to 40 CFR Part 261. The RCRA requirements specified below are applicable requirements for the treatment, storage and disposal of these F032 wastes.

The RCRA regulations at 40 CFR Part 262 (applicable, as incorporated by the Montana Hazardous Waste Act) establish standards that apply to generators of hazardous waste. These standards include requirements for obtaining an EPA identification number and maintaining certain records and filing certain reports. These standards are applicable for any waste which will transported offsite.

The RCRA regulations at 40 CFR Part 263 (applicable, as incorporated by the Montana Hazardous Waste Act) establish standards that apply to transporters of hazardous waste. These standards include requirements for immediate action for hazardous waste discharges. These standards are applicable for any onsite transportation. These standards are independently applicable for any offsite transportation.

The regulations at 40 CFR 264, Subpart B (applicable, as incorporated by the Montana Hazardous Waste Act) establish general facility requirements. These standards include requirements for general waste analysis, security and location standards.

The regulations at 40 CFR 264, Subpart F (applicable, as incorporated by the Montana Hazardous Waste Act) establish requirements for groundwater protection for RCRA-regulated solid waste management units (i.e., waste piles, surface impoundments, land treatment units, and landfills). The regulations at Subpart F establish monitoring requirements for RCRA-regulated solid waste management units (i.e., waste piles, surface impoundments, land treatment units, and landfills). Subpart F provides for three general types of groundwater monitoring: detection

monitoring (40 CFR 264.98); compliance monitoring (40 CFR 264.99); and corrective action monitoring (40 CFR 264.100). Monitoring wells must be cased according to 264.97(c).

Monitoring is required during the active life of a hazardous waste management unit. If hazardous waste remains, monitoring is required for a period necessary to protect human health and the environment.

40 CFR Part 264, Subpart G (applicable, as incorporated by the Montana Hazardous Waste Act) establishes that hazardous waste management facilities must be closed in such a manner as to (a) minimize the need for further maintenance and (b) control, minimize or eliminate, to the extent necessary to protect public health and the environment, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

Requirements for facilities requiring post-closure care include the following: the facilities must undertake appropriate monitoring and maintenance actions, control public access, and control post-closure use of the property to ensure that the integrity of the final cover, liner, or containment system is not disturbed. In addition, all contaminated equipment, structures and soil must be properly disposed of or decontaminated unless exempt and free liquids are removed or solidified, the wastes stabilized, and the waste management unit covered.

40 CFR Part 264, Subparts I and J (Applicable, as incorporated by the Montana Hazardous Waste Act) apply to owners and operators of facilities that store hazardous waste in containers, and store or treat hazardous waste in tanks, respectively. These regulations are applicable to any storage or treatment in these units at the facility. The related provisions of 40 CFR 261.7 regarding residues of hazardous waste in empty containers are also applicable.

40 CFR Part 264, Subpart L (Applicable, as incorporated by the Montana Hazardous Waste Act) applies to owners and operators of facilities that store or treat hazardous waste in piles. The regulations include requirements for the use of run-on and run-off control systems and collection and holding systems to prevent the release of contaminants from waste piles. These regulations apply to any storage in waste piles.

40 CFR Part 264, Subpart M (Applicable, as incorporated by the Montana Hazardous Waste Act) apply to owners and operators of facilities that treat hazardous waste in land treatment units.

40 CFR Part 264, Subpart S (Applicable, as incorporated by the Montana Hazardous Waste Act) provides special provisions for cleanup; 40 CFR 264.552 allows the designation of a corrective action management unit (CAMU) located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated and provides requirements for siting, managing, and closing the CAMU. An example of CAMU-eligible waste includes F0032-contaminated soil that must be managed to implement the cleanup. Placement of this CAMU-eligible waste does not constitute land disposal of hazardous waste. If staging piles are needed during remediation, compliance with 40 CFR 264.554 will be required.

40 CFR 264.554 sets forth the requirements for a staging pile. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate). The staging pile must not operate for more than two years and cannot be used for treatment.

Since the wastes to be treated are listed and characteristic wastes, the RCRA Land Disposal Restrictions (LDRs) treatment levels set forth in 40 CFR Part 268 are applicable requirements including the treatment levels for F032 listed wastes for the disposal of hazardous wastes generated at the facility. With the exception of treated soils, hazardous wastes are prohibited from disposal onsite.

The Hazardous Waste Identification Rule (HWIR) Media Rule promulgated at 63 Fed. Reg. 65874 (November 30, 1998) (applicable, as incorporated by the Montana Hazardous Waste Act) allows listed waste treated to levels protective of human health and the environment to be disposed onsite without triggering land ban or minimum technology requirements for these disposal requirements. Treated soils containing hazardous waste will need to meet site-specific cleanup levels as well as the LDR treatment standards (applicable, as incorporated by the Montana Hazardous Waste Act) (40 CFR 268.49(c) (1)(C)), which requires that contaminated soil to be land disposed be treated to reduce concentrations of the hazardous constituents by 90 percent or meet hazardous constituent concentrations that are ten times the universal treatment standards (UTS) (found at 40 CFR 268.48), whichever is greater, to avoid triggering land ban.

40 CFR Part 270 (applicable, as incorporated by the Montana Hazardous Waste Act) sets forth the hazardous waste permit program. The requirements set forth in 40 CFR Part 270, Subpart C (permit conditions), including the requirement to properly operate and maintain all facilities and systems of treatment and control are applicable requirements. For any management (i.e., treatment, storage, or disposal) or removal or retention, the RCRA regulations found at 40 CFR 264.116 (survey plats) and .119 (governing notice and deed restrictions), 264.228(a)(2)(i) (addressing de-watering of wastes prior to disposal), and 264.228(a)(2)(iii)(B)(C)(D) and .251 (c)(d)(f) (regarding run-on and run-off controls), are relevant requirements for any waste management units created or retained at the facility that contain non-exempt waste. A construction de-watering permit covers similar requirements.

1.5.2 The Montana Hazardous Waste Act, §§ 75-10-401 *et seq.*, MCA (applicable) and regulations.

This Act establishes a regulatory structure for the generation, transportation, treatment, storage and disposal of hazardous wastes. These requirements are applicable to substances and actions at the facility which involve listed and characteristic hazardous wastes.

ARM 17.53.501-502 (applicable) adopts the equivalent of RCRA regulations at 40 CFR Part 261, establishing standards for the identification and listing of hazardous wastes, including standards for recyclable materials and standards for empty containers, with certain State exceptions and additions.

ARM 17.53.601-604 (applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 262, establishing standards that apply to generators of hazardous waste, including standards pertaining to the accumulation of hazardous wastes, with certain State exceptions and additions.

ARM 17.53.701-708 (applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 263, establishing standards that apply to transporters of hazardous waste, with certain State exceptions and additions.

ARM 17.53.801-803 (applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 264, establishing standards that apply to hazardous waste treatment, storage and disposal facilities, with certain State exceptions and additions.

ARM 17.53.1101-1102 (applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 268, establishing land disposal restrictions, with certain State exceptions and additions.

Section 75-10-422 MCA (applicable) prohibits the unlawful disposal of hazardous wastes.

ARM 17.53.1201-1202 (applicable) adopts the equivalent to RCRA regulations at 40 CFR Part 270 and 124, which establish standards for permitted facilities, with certain State exceptions and additions.

ARM 17.53.1401 (applicable) adopts the equivalent of RCRA regulations at 40 CFR Part 279 that set forth the standards for the management of used oil.

Model VCP Compliance: As described in Section 5.1, the proposed remedy involves properly treating, transporting, and disposing of all hazardous waste at [insert the name of the facility] in accordance with the requirements of these ERCLs. The excavated soil will be placed into appropriately-sized containers that meet RCRA requirements and disposed of at an offsite RCRA-permitted hazardous waste facility. Investigation derived waste (IDW) will be generated in the form of water used for decontamination of sampling equipment (backhoe). IDW from decontamination of equipment will likely contain F032 listed hazardous waste and therefore will be contained in a drum with a lid that can be tightened to prevent leaking that will be placed into an overpack drum or other secondary containment and stored within an access-controlled (fenced) outdoor temporary storage area pending disposal at an offsite RCRA-permitted hazardous waste disposal facility capable of accepting F032 waste. The IDW will be transported outside the Facility within 90 days, a hazardous waste transporter will be used, and the hazardous waste will be manifested.

1.6 Technology-Based Treatment

ARM 17.30.1203 (Applicable): Provisions of 40 CFR Part 125 for criteria and standards for the imposition of technology-based treatment requirements are adopted and incorporated in DEQ permits. For toxic and nonconventional pollutants treatment must apply the best available technology economically achievable (BAT); for conventional pollutants, application of the best conventional pollutant control technology (BCT) is required. Where effluent limitations are not specified for the particular industry or industrial category at issue, BCT/BAT technology-based treatment requirements are determined on a case by case basis using best professional judgment (BPJ).

Model VCP Compliance: The VCP applicant will obtain the required permit which may impose a technology-based treatment requirement. The applicant will comply with all permit requirements. Therefore, the proposed remedy meets the requirements of these ERCLs.

1.7 Underground Injection Control Program

The Underground Injection Control Program provided in 40 CFR Parts 144 and 146 (Applicable) sets forth the standards and criteria for the injection of substances into aquifers. Wells are classified as Class I through V, depending on the location and the type of substance injected. For all classes, no owner may construct, operate or maintain an injection well in a manner that results in the contamination of an underground source of drinking water at levels that violate maximum contaminant levels (MCLs) or otherwise adversely affect the health of persons. Each classification may also contain further specific standards, depending on the classification.

Model VCP Compliance: No injection of substances will occur as part of the proposed remedy. Therefore, the proposed remedy meets the requirements of these ERCLs.

1.8 Underground Storage Tank Requirements

40 CFR Part 280, Subpart F (applicable**)** sets forth requirements for Release Response and Corrective Action for underground storage tank (UST) Systems Containing Petroleum or Hazardous Substances. These include initial response, initial abatement measures, facility characterization, free product removal, and investigations for soil and groundwater cleanup.

40 CFR 280.64 (applicable) provides that where investigations in connection with leaking underground storage tanks reveal the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency. This regulation also requires that the free product removal be conducted in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the facility, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state and federal regulations.

40 CFR 280.64 (applicable) provides that abatement of free product migration is a minimum objective for the design of the free product removal system provides that any flammable products must be handled in a safe and competent manner to prevent fires or explosions.

40 CFR Part 280, Subpart D (applicable) sets forth requirements for release detection.

40 CFR 280.43 (relevant) specifies groundwater monitoring requirements for underground storage tanks and requires continuous monitoring devices or manual methods used to detect the presence of at least 1/8 of an inch of free product on top of the groundwater in the monitoring wells.

The Montana regulations regarding underground storage tanks include similar requirements.

ARM Title 17, Chapter 56, Sub-Chapter 4 (applicable) specifies release detection.

ARM 17.56.407 (applicable) specifies groundwater monitoring requirements for underground storage tanks and requires continuous monitoring devices or manual methods used to detect the presence of at least 1/8 of an inch of free product on top of the groundwater in the monitoring wells.

ARM Title 17, Chapter 56, Sub-Chapter 6 (applicable) specifies release response and corrective action for tanks containing petroleum or hazardous substances.

ARM 17.56.602 through 605 (applicable) requires certain mitigation measures including removal of as much of the regulated substance from the system as is necessary to prevent further release into the environment and prevention of further migration of the released substance into surrounding soil and groundwater. In particular, ARM 17.56.602(1)(c) (applicable requires that after a release from an underground storage tank system is identified in any manner, owners and operators must investigate to determine the possible presence of free product, begin free product removal as soon as practicable, conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state and federal regulations. This regulation also provides that abatement of free product migration is a minimum objective for the design of the free product removal system and provides that any flammable products must be handled in a safe and competent manner to prevent fires or explosions.

ARM 17.56.607 (relevant) specifies that all free product must be removed to the maximum extent practicable before a release may be considered resolved.

ARM 17.56.702 (applicable) requires that all tanks and connecting piping which are taken out of service permanently must be removed from the ground. This applies if any remaining underground piping is encountered during remedial activities.

Model VCP Compliance: All underground storage tanks have been removed from the facility previously in compliance with these ERCLs. Also, there is no detectable free product in any groundwater well. Therefore, the proposed remedy meets the requirements of these ERCLs.

1.9 Reclamation and Revegetation Requirements

Certain portions of the Montana Strip and Underground Mining Reclamation Act and Montana Metal Mining Act as well as the Mine and Smelter Waste Remediation provisions as outlined below are relevant requirements for activities at the facility. While no mining activities are occurring at the facility, these requirements are relevant for the management and reclamation of areas disturbed by excavation, grading, or similar actions.

ARM 17.24.501 (relevant) gives general backfilling and final grading requirements.

ARM 17.24.631(1), (2), (3)(a) and (b): Disturbances to the prevailing hydrologic balance will be minimized. Changes in water quality and quantity, in the depth to groundwater and in the location of surface water drainage channels will be minimized, to the extent consistent with the selected remedial action. Other pollution minimization devices must be used if appropriate, including stabilizing disturbed areas through land shaping, diverting runoff, planting quickly germinating and growing stands of temporary vegetation, regulating channel velocity of water, lining drainage channels with rock or vegetation, mulching, and control of acid-forming, and toxic-forming waste materials.

ARM 17.24.633 (relevant) states that all surface drainage from a disturbed area must be treated by the best technology currently available (BTCA). Treatment must continue until the area is stabilized.

ARM 17.24.635 through 17.24.637 (relevant) set forth requirements for temporary and permanent diversions.

ARM 17.24.638 (relevant) specifies sediment control measures to be implemented during operations.

ARM 17.24.640 (relevant) provides that discharge from diversions must be controlled to reduce erosion and minimize disturbance of the hydrologic balance.

ARM 17.24.641(relevant) indicates that practices to prevent drainage from acid or toxic forming spoil material into groundwater and surface water will be employed.

ARM 17.24.643 through 17.24.646 (relevant) provide provisions for groundwater protection, groundwater recharge protection, and groundwater and surface water monitoring.

ARM 17.24.701 and 702 (relevant) provide requirements for redistributing and stockpiling of soil for reclamation. Also outline practices to prevent compaction, slippage, erosion, and deterioration of biological properties of soil.

ARM 17.24.703 (relevant) require that when using materials other than, or along with, soil for final surfacing in reclamation, the operator must demonstrate that the material (1) is at least as capable as the soil of supporting the approved vegetation and subsequent land use, and (2) the medium must be the best available in the area to support vegetation. Such substitutes must be

used in a manner consistent with the requirements for redistribution of soil in ARM 17.24.701 and 702.

ARM 17.24.711 (relevant) requires that a diverse, effective and permanent vegetative cover of the same seasonal variety and utility as the vegetation native to the area of land to be affected must be established. This provision would not be relevant and appropriate in certain instances, for example, where there is dedicated development.

ARM 17.24.713 (relevant) provides that seeding and planting of disturbed areas must be conducted during the first appropriate period for favorable planting after final seedbed preparation, but may not be more than ninety days after soil has been replaced.

ARM 17.24.714 (relevant) requires use of a mulch or cover crop or both until an adequate permanent cover can be established. Use of mulching and temporary cover may be suspended under certain conditions.

ARM 17.24.716 (relevant) establishes the required method of revegetation.

ARM 17.24.717 (relevant) relates to the planting of trees and other woody species if necessary, as provided in § 82-4-233, MCA, to establish a diverse, effective, and permanent vegetative cover.

ARM 17.24.718 (relevant) requires soil amendments if necessary to establish a permanent vegetative cover.

ARM 17.24.721 (relevant) specifies that rills and gullies must be stabilized and the area reseeded and replanted if the rills and gullies are disrupting the reestablishment of the vegetative cover.

ARM 17.24.723 (relevant) requires periodic monitoring of vegetation, soils, water, and wildlife.

ARM 17.24.724 (relevant) specifies how revegetation success is measured.

ARM 17.24.726 (relevant) sets the required methods for measuring vegetative success.

ARM 17.24.731 (relevant) provides if toxicity to plants or animals is suspected, comparative chemical analyses may be required.

Section 75-10-1404, MCA (relevant) provides that lands where waste has been removed must be revegetated using plant species native to the area and must achieve a vegetative cover equal to 85 percent of the vegetative cover of adjacent lands that were not previously disturbed within three years of the initial seeding.

Model VCP Compliance: The excavation will be backfilled with clean fill and regraded to slopes appropriate for its usage. Surface water controls will be implemented during construction to prevent runoff from contaminated soil. Final surfacing will use appropriate soil material. Seeding and planting of disturbed areas will be conducted within ninety days after the soil has

been replaced. A mulch cover will be used until an adequate cover is established. The disturbed areas will be revegetated consistent with these requirements. Surface water run-on and runoff measures will be implemented to prevent the spread of contamination into areas where it could degrade fish and wildlife habitat. Dust control measures will be used during excavation and backfilling areas. Thus, the proposed remedy meets the requirements of these ERCLs.

1.10 Noxious Weed Requirements

Sections 7-22-2101 *et seq*., MCA (Applicable) establishes and authorizes weed control at the local level. Section 7-22-2101(8)(a), MCA defines "noxious weeds." Designated noxious weeds are listed in ARM 4.5.201 and 4.5.206 through 4.5.209 and must be managed consistent with weed management criteria developed under § 7-22-2109(2)(b), MCA and in compliance with § 7-22-2152, MCA (Applicable). In addition, ARM 4.5.210 identifies regulated plants that may not be used for revegetation.

Model VCP Compliance: As specified in Section 5.1, the county weed board will be notified of the impending cleanup activity and provided with a copy of the VCP if requested. A revegetation plan meeting the requirements specified in Section 5.1 and any other specific requirements of the board will be submitted to the board at least 15 days prior to initiation of the cleanup. A copy of the revegetation and approval letter will be provided to DEQ when available. Therefore, the proposed remedy meets the requirements of these ERCLs.

2.0 CONTAMINANT-SPECIFIC ERCLs

2.1 Groundwater Standards

2.1.1 Safe Drinking Water Act – 42 U.S.C. § 300f *et seq*. and the National Primary Drinking Water Regulations (40 CFR Part 141) (applicable) establishes MCLs and maximum contaminant level goals (MCLGs) for contaminants in drinking water distributed in public water systems. The requirements were evaluated in this ERCLs analysis in conjunction with the groundwater classification standards promulgated by the State of Montana. The MCLs are identified because the groundwater at the facility is a source of drinking water.

EPA's guidance on Remedial Action for Contaminated Groundwater at Superfund Sites states that MCLs developed under the Safe Drinking Water Act generally are Applicable or Relevant and Appropriate Requirements [ARARs; the federal equivalent of ERCLs] for current or potential drinking water sources. EPA has also established MCLGs for contaminants in drinking water distributed in public water systems. MCLGs that are above zero are relevant under the same conditions (55 Fed.Reg. 8750-8752, March 8, 1990). See also, State of Ohio v. EPA, 997 F.2d 1520 (D.C. Cir. 1993), which upholds EPA's application of MCLs and non-zero MCLGs as ARARs for groundwater which is a potential drinking water source.

MCLS for the primary contaminants of concern in groundwater are listed below. However, compliance with all MCLs is required and remedial actions must meet the MCLs for all contaminants at the facility, including any breakdown products generated during remedial actions.

Chemical	MCL (in micrograms per liter; µg/L)
Arsenic	10 µg/L
Benzene	5 µg/L
Dioxins/furans	.00003 µg/L
Ethylbenzene	700 µg/L
Pentachlorophenol	1 µg/L
Toluene	1,000 µg/L

In addition, the Secondary Maximum Contaminant Levels (SMCLS) specified in 40 CFR Part 143.3 are relevant requirements which are ultimately to be attained by the remedy for the facility. This regulation contains standards for iron, manganese, sulfate, color, odor, and corrosivity that are relevant to the remedial actions.

2.1.2 The Montana Water Quality Act, §§ 75-5-101, *et seq.,* MCA (applicable) and regulations.

The Montana Water Quality Act, § 75-5-605, MCA (applicable) provides that it is unlawful to cause pollution of any state waters and § 75-6-112, MCA (applicable) provides that is unlawful to violate the Montana Water Quality Act. Section 75-5-605, MCA (applicable) also states that it is unlawful to place or cause to be placed any wastes where they will cause pollution of any state waters. Section 75-5-303, MCA (applicable) states that existing uses of state waters and the level of water quality necessary to protect the uses must be maintained and protected.

ARM 17.30.1006 (Applicable) classifies groundwater into Classes I through IV based upon its specific conductance and establishes the groundwater quality standards applicable with respect to each groundwater classification. Class I is the highest quality class; Class IV the lowest. Class I groundwater has a specific conductance of less than 1,000 microSiemens per centimeter (µS/cm) at 25 degrees Celsius. As discussed in the Environmental Assessment, the specific conductance of groundwater ranged from 52 µS/cm to 134 µS/cm. The lowest measured specific conductance generally dictates its classification and, based on its specific conductance, groundwater at the facility is Class 1 groundwater. Concentrations of substances in groundwater within Class 1 may not exceed the human health standards for groundwater listed in Circular DEQ-7, Montana Numeric Water Quality Standards, October 2012 (DEQ-7) (applicable). In addition, no increase of a parameter may violate the non-degradation policy found in § 75-5-303, MCA (applicable). For concentrations of parameters for which human health standards are not listed in DEQ-7, ARM 17.30.1006 allows no increase of a parameter to a level that renders the waters harmful, detrimental or injurious to the beneficial uses listed for that class of water.

DEQ-7 human health standards for the primary contaminants of concern in groundwater are listed below. Compliance with all DEQ-7 standards is required and remedial actions must meet the DEQ-7 standards for all contaminants at the facility, including any breakdown products generated during remedial actions.

Chemical	DEQ-7 Standard for Groundwater
tetrachloroethene (PCE)	5 µg/L
trichloroethene (TCE)	5 µg/L

trans-1,2 dichloroethene	100 µg/L
cis-1,2 dichloroethene	70 µg/L
vinyl chloride	0.2 µg/L

ARM 17.30.1011 (applicable) provides that any ground water whose existing quality is higher than the standard for its classification must be maintained at that high quality unless degradation may be allowed under the principles established in § 75-5-303, MCA, and the non-degradation rules at ARM 17.30.701 *et seq.*

Model VCP Compliance: No public drinking water supply sources are located near the facility. As described in Section 3.8.3 of this VCP, the impacted soil is not leaching COPCs to the groundwater at concentrations above human health standards or risk based screening levels. Groundwater at the facility would be classified as Class I based on specific conductivity less than 1,000 µS/cm. Groundwater at the facility does not exceed the standards listed in DEQ-7 or the MCLs. The proposed remedy will not create additional groundwater degradation, which will be verified through groundwater monitoring. Therefore, the proposed remedy meets the requirements of these ERCLs.

2.2 Surface Water Quality Standards

The Montana Water Quality Act, §§ 75-5-101 *et seq.*, MCA, (applicable) establishes requirements for restoring and maintaining the quality of surface and ground waters and the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, establishes requirements for restoring and maintaining the quality of surface waters. Under these Acts the state has authority to adopt water quality standards designed to protect beneficial uses of each water body and to designate uses for each water body. Montana's regulations classify state waters according to quality, place restrictions on the discharge of pollutants to state waters and prohibit the degradation of state waters.

ARM 17.30.606-617 ((applicable) provides that the waters of the [insert river name] River drainage from [insert stretch description] are classified "B-3" for water use.

The "B-3" classification standards are contained in ARM 17.30.625 (applicable) of the Montana water quality regulations. This section provides the beneficial uses for the B-3 classification, and provides that concentrations of toxic, carcinogenic, or harmful parameters in the waters may not exceed DEQ-7 standards. The section also provides the specific water quality standards for water classified as B-3.

For the primary contaminants of concern, the DEQ-7 levels are listed below. DEQ-7 provides that "whenever both Aquatic Life Standards and Human Health Standards exist for the same analyte, the more restrictive of these values will be used as the numeric Surface Water Quality Standard."

Chemical	DEQ-7 Standard for Surface Water
tetrachloroethene (PCE)	5 µg/L
trichloroethene (TCE)	5 µg/L

trans-1,2 dichloroethene	100 μg/L
cis-1,2 dichloroethene	70 μg/L
vinyl chloride	0.25 μg/L

ARM 17.30.625 provides that concentrations of carcinogenic, bioconcentrating, toxic or harmful parameters which would remain in the water after conventional water treatment may not exceed the applicable standards set forth in DEQ-7.

The B-3 classification standards at ARM 17.30.625 also include the following criteria: 1) dissolved oxygen concentration must not be reduced below the levels given in department circular DEQ-7; 2) hydrogen ion concentration (pH) must be maintained within the range of 6.5 to 9.0; 3) the maximum allowable increase above naturally occurring turbidity is 5 nephelometric turbidity units; 4) temperature increases must be kept within prescribed limits; 5) no increase are allowed above naturally occurring concentrations of sediment, settleable solids, oils, floating solids, which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish or other wildlife; and 6) true color must be kept within specified limits.

ARM 17.30.637 (applicable) prohibits discharges containing substances that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter (mg/L)) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; (e) create conditions which produce undesirable aquatic life.

ARM 17.30.637 (Applicable) also provides that leaching pads, tailing ponds, or water, waste or product holding facilities must be located, constructed, operated and maintained to prevent any discharge, seepage, drainage, infiltration, or flow which may result in pollution of state waters, and a monitoring system may be required to ensure such compliance. No pollutants may be discharged and no activities may be conducted which, either alone or in combination with other wastes or activities, result in the total dissolved gas pressure relative to the water surface exceeding 110 percent of saturation.

ARM 17.30.641 (applicable) provides standards for sampling and analysis of water to determine quality.

ARM 17.30.646 (applicable) requires that bioassay tolerance concentrations be determined in a specified manner.

ARM 17.30.705 (Applicable) provides that for any surface water, existing and anticipated uses and the water quality necessary to protect these uses must be maintained and protected unless degradation is allowed under the non-degradation rules at ARM 17.30.708.

Model VCP Compliance: As described in Section 5.1 of this VCP, remedial actions at the facility include relocation of the stream and will result in remediation of the surface water and sediment in the stream. The remedial actions will be conducted in accordance with applicable permits to minimize the discharge of any material to surface water at the facility. Following the remediation, surface water at the facility will not exceed the standards listed in DEQ-7. Therefore, the VCP meets the requirements of these ERCLs.

2.3 Air Standards

The Clean Air Act (42 U.S.C. §§ 7401 *et seq.*) (applicable) provides limitations on air emissions resulting from cleanup activities or emissions resulting from wind erosion of exposed hazardous substances. Some of these ERCLs, identified as action-specific requirements could also be identified here as contaminant specific requirements but will not be repeated.

The National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61 (applicable) establishes emission standards for specific air pollutants.

Sections 75-2-101, *et seq.*, MCA, (applicable) provides that state emission standards are enforceable under the Montana Clean Air Act.

ARM 17.74 Subchapter 3 (applicable) addresses requirements related to persons or entities engaged in asbestos related occupations, in charge of asbestos projects, or engaged in facility demolition or renovation activities. Training requirements for persons engaged in asbestos-type occupations are specified.

The Asbestos Control Act (§§ 75-2-501 *et seq.*, MCA) (applicable) establishes requirements for asbestos projects including permitting and inspection requirements. Section 75-2-502, MCA, defines an asbestos project to exclude a project that involves less than ten square feet in surface area or three linear feet of pipe.

ARM 17.8.220 (applicable) provides that no person shall cause or contribute to concentrations of particulate matter in the ambient air such that the mass of settled particulate matter exceeds a 30-day average of 10 grams per square meter (gm/m^2). A measurement method is also provided.

ARM 17.8.221 (applicable) provides concentrations of particulate matter in ambient air shall not exceed annual average scattering coeffient of 3×10^{-5} per meter.

40 CFR 50.12 and ARM 17.8.222 (applicable) provides ambient air quality standards for lead. Lead concentrations in air shall not exceed the following 90-day average: 1.5 micrograms per cubic meter ($\mu g/m^3$) of air.

ARM 17.8.223 (applicable) provides PM-10 concentrations in ambient air shall not exceed a 24-hour average of 150 $\mu g/m^3$ of air and an annual average of 50 $\mu g/m^3$ of air.

Ambient air standards under section 109 of the Clean Air Act are also promulgated for carbon monoxide, hydrogen sulfide, nitrogen dioxide, sulfur dioxide, and ozone. If emissions of these

compounds were to occur at the facility in connection with any cleanup action, these standards would also be applicable. *See* ARM 17.8.210, 17.8.211, 17.8.212, 17.8.213, and 17.8.214.

Model VCP Compliance: The proposed remedy involves handling impacted soil and prevent the release of dust, including asbestos fibers. All persons conducting remedial actions will be accredited by DEQ as provided for in ARM 17.74.362, the applicant will obtain an asbestos project permit as required by ARM 17.74.355, and all the sampling required by ARM 17.74.357 will be conducted. As described in Section 5.1 of this VCP, remedial actions at the facility will include wetting and other dust control measures. The air monitoring program plan, presented in Section 5.1.3 of this VCP, details the air monitoring program and procedures. Asbestos will be used as an indicator of fugitive dust control. Remedial actions will be halted if significant dust is generated and will not resume until adequate dust control measures are in place. Any unpaved roads used for waste hauling will be treated with a binder to reduce dust emissions. Therefore, the VCP meets the requirements of these ERCLs.

2.4 Natural Streambed and Land Preservation Act

Section 75-7-111, MCA, (applicable) provides that a person planning to engage in any activity that will physically alter or modify the bed or banks of a stream must give written notice to the Board of Supervisors of a Conservation District, the Directors of a Grass Conservation District, or the Board of County Commissioners if the proposed project is not within a district, and must submit a "310 Permit" application to one of those entities.

ARM 36.2.404 (applicable) establishes minimum standards which would be applicable if a remedial action alters or affects a streambed, including any channel change, new diversion, riprap or other streambank protection project, jetty, new dam or reservoir or other commercial, industrial or residential development. No such project may be approved unless reasonable efforts will be made consistent with the purpose of the project to minimize the amount of stream channel alteration, insure that the project will be as permanent a solution as possible and will create a reasonably permanent and stable situation, insure that the project will pass anticipated water flows without creating harmful erosion upstream or downstream, minimize turbidity, effects on fish and aquatic habitat, and adverse effects on the natural beauty of the area and insure that streambed gravels will not be used in the project unless there is no reasonable alternative. Soils erosion and sedimentation must be kept to a minimum. Such projects must also protect the use of water for any useful or beneficial purpose. See § 75-7-102, MCA.

Model VCP Compliance: As described in Section 5.1 of this VCP, these permits will be obtained before streambank relocation is conducted at the facility. All conditions of the permits will be met during the remedial activity. Therefore, the VCP meets the requirements of these ERCLs.

2.5 Methane

ARM 17.50.1106 (relevant) specifies the concentration of methane gas generated by a solid waste facility cannot exceed 25 percent of the lower explosive limit (LEL) for methane in facility structures.

Model VCP Compliance: As described in this VCP, methane concentrations at the facility do not exceed 25 percent of the LEL and monitoring will be conducted during implementation of the remedy to ensure that level is not exceeded during cleanup. Therefore, the VCP meets the requirements of these ERCLs.

3.0 LOCATION-SPECIFIC ERCLS

3.1 Endangered Species

3.1.1. The Endangered Species Act (relevant). This statute and implementing regulations (16 U.S.C. § 1531 *et seq.*, 50 CFR Part 402, 40 CFR 6.302(h), and 40 CFR 257.3-2) require that any federal activity or federally authorized activity may not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify a critical habitat. Compliance with this requirement involves consultation with the U.S. Fish and Wildlife Service (USFWS) and a determination of whether there are listed or proposed species or critical habitats present at the facility, and, if so, whether any proposed activities will impact such wildlife or habitat.

3.1.2 Montana Nongame and Endangered Species Act, §§ 87-5-101 *et seq.* (applicable): Endangered species should be protected in order to maintain and to the extent possible enhance their numbers. These sections list endangered species, prohibited acts and penalties. *See also*, § 87-5-201, MCA, (applicable) concerning protection of wild birds, nests and eggs; and ARM 12.5.201 (applicable) prohibiting certain activities with respect to specified endangered species.

Model VCP Compliance: Based on information obtained from the Montana Natural Heritage Program (Appendix G of the Remediation Proposal), endangered species have not been identified at the facility. Thus, the proposed remedy meets the requirements of this ERCL.

3.2 Migratory Bird Treaty Act

This requirement (16 USC §§ 703 *et seq*.) (relevant) establishes a federal responsibility for the protection of the international migratory bird resource and requires continued consultation with the appropriate program within the USFWS during remedial design and remedial construction to ensure that the cleanup of the facility does not unnecessarily impact migratory birds.

Model VCP Compliance: Migratory birds are present near the facility. However, the facility does not provide the majority of habitat for these species relative to the surrounding area. There are no features of the facility that are particularly attractive to these species. Therefore, remedial actions at the facility are not expected to impact migratory birds. Thus, the proposed remedy meets the requirements of this ERCL.

3.3 Bald Eagle Protection Act

This requirement (16 USC §§ 668 *et seq.*) (relevant) establishes a federal responsibility for protection of bald and golden eagles, and requires continued consultation with the appropriate program within the USFWS during remedial design and remedial construction to ensure that any cleanup of the facility does not unnecessarily adversely affect the bald and golden eagle.

Model VCP Compliance: Bald and golden eagles have not been observed at the facility. In addition, the facility does not provide the majority of habitat for these species relative to the surrounding area. There are no features of the facility that are particularly attractive to these species. Therefore, remedial actions at the facility are not expected to impact these species. Thus, the proposed remedy meets the requirements of this ERCL.

3.4 Historic Sites, Buildings, Objects and Antiquities Act

These requirements, found at 16 USC 461 *et seq.*, (relevant) provide that, in conducting an environmental review of a proposed action, the responsible official shall consider the existence and location of natural landmarks using information provided by the National Park Service pursuant to 36 CFR § 62.6(d) to avoid undesirable impacts upon such landmarks.

Model VCP Compliance: Current data indicate that no landmarks are present on the facility. Thus, the proposed remedy meets the requirements of this ERCL.

3.5 Montana Greater Sage-Grouse Stewardship Act

The Montana Greater Sage-Grouse Stewardship Act, §§ 2-15-243 and 76-22-101, *et seq*., MCA, and related Executive Orders 10-2014, 12-2015, and 21-2015 (applicable, substantive provisions only) establishes a map of sage-grouse Core Areas, Connectivity Areas, and General Habitat (Executive Order 21-2015 at https://sagegrouse.mt.gov/images/exec_order_map.jpg), a Montana sage-grouse oversight team, and a Sage Grouse Habitat Conservation program. If a remedial action will occur within one of the designated areas on the map, consultation is required with the Sage Grouse Habitat Conservation program, which is housed within the Department of Natural Resources and Conservation (https://sagegrouse.mt.gov/). Certain activities are prohibited or limited within the designated areas on the map. See the Core Area Stipulations, General Habitat Stipulations, and Connectivity Habitat Stipulations in Attachment D of Executive Order 10-2014, as amended by Executive Order 12-2015, including requirements/restrictions on surface disturbance; surface occupancy; seasonal use limitations; transportation limitations; pipelines; overhead power lines and communications towers; noise; vegetation removal; sagebrush eradication; wildfire and prescribed burns; monitoring; reclamation; conifer expansion; and rangelands. The industry-specific stipulations (for oil and gas, mining, coal mining, and wind energy industries) within Core Areas in Attachment D may be relevant, depending upon the type of facility and activities required for remedial action. A waiver of the various requirements is allowed through creation of a Special Management Area where a planned land use or activities associated with "valid rights" cannot be implemented. "Valid rights" are defined as "legal 'rights' or interest that are associated with land or mineral estate and that cannot be divested from the estate until that interest expires, is relinquished, or acquired." (Executive Order 10-2014, Attachment H). The procedures for Special Management Areas are outlined in Attachment E to Executive Order 10-2014, as amended by Executive Order 12-2015. Certain activities outlined in Attachment F of Executive Order 10-2014, as amended by Executive Order 12-2015, are exempt from these requirements.

Model VCP Compliance: Based on a review of designated areas on the sage grouse map, the facility is not with a sage grouse core area, connectivity area, or general habitat. Thus, the proposed remedy meets the requirements of this ERCL.

3.6 Resource Conservation and Recovery Act

40 CFR 264.18 (relevant) provides location requirements for owners and operators of hazardous waste management units. Portions of new management units must not be located within 200 feet of a fault which has had displacement in Holocene time and management units in or near a 100-year floodplain must be designed, constructed, operated, and maintained to avoid washout.

Model VCP Compliance: All hazardous waste will be removed from the facility and no management units will be created. Thus, the proposed remedy meets the requirements of this ERCL.

3.7 Fish and Wildlife Coordination Act

These standards are found at 16 USC § 661 *et seq.* and 40 CFR 6.302(g) (relevant) and require that federally funded or authorized projects ensure that any modification of any stream or other water body affected by a funded or authorized action provide for adequate protection of fish and wildlife resources.

Model VCP Compliance: As stated in section 5.1 of the VCP, the proposed remedy includes rerouting of the stream channel. Any fish caught in pools after the stream diversion will be collected and relocated into the active stream channel. No other wildlife species reside primarily at the facility and the proposed remedy is not expected to impact any other species. Therefore, the proposed remedy meets the requirements of these ERCLs.

3.8 Floodplain Management Order

Executive Order 11988 (relevant) requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Implementing regulations for this executive order are found at 40 CFR 6. The executive order and regulations are relevant because a portion of the facility is in a floodplain; however, no federal action is anticipated at the facility. In addition, application of the Montana floodplain requirements (see below) addresses protection of the floodplain.

Model VCP Compliance: No federal action is anticipated at the facility. Also, as stated in section 5.1 of the VCP, the proposed remedy includes reconstruction of a 100-year floodplain along the new stream channel which will comply with Montana's floodplain requirements. Therefore, the proposed remedy will not result in adverse impacts to the floodplain and will meet the requirements of this ERCL.

3.9 Protection of Wetlands Order

This requirement (40 CFR Part 6, Appendix A, Executive Order No. 11,990) (relevant) mandates that federal agencies and potentially responsible parties avoid, to the extent possible, the adverse impacts associated with the destruction or loss of wetlands and to avoid support of new construction in wetlands if a practicable alternative exists.

Section 404(b)(1), 33 U.S.C. § 1344(b)(1) (relevant) also prohibits the discharge of dredged or fill material into waters of the United States. Together, these requirements create a "no net loss" of wetlands standard.

Model VCP Compliance: There is one small designated wetland present at the facility. The VCP provides a detailed pre-construction drawing that reflects the location of this wetland. It is not anticipated that the excavation conducted under the VCP will impact the wetland. However, if the wetland is disturbed by the proposed remedy, this habitat will be re-established by reseeding with appropriate vegetation and ensuring the reconstructed stream channel will continue to support a wetland. Therefore, the proposed remedy will meet the requirements of this ERCL.

3.10 Solid Waste Management Requirements

Regulations promulgated under the Solid Waste Management Act, §§ 75-10-201 *et seq.*, MCA, (applicable) specify requirements that apply to the location of any solid waste management facility.

ARM 17.50.1004 (applicable) specifies a solid waste facility located within the 100-year floodplain may not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste that poses a hazard to human health or the environment. *See also* ARM 17.50.1009(1)(h) (applicable).

ARM 17.50.1005 (applicable) specifies a solid waste facility may not be located in a wetland, unless there is no demonstrable practicable alternative.

ARM 17.50.1006 (applicable) specifies a solid waste facility cannot be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time without demonstration that an alternative setback will prevent damage to the structural integrity of the solid waste facility and will be protective of human health and the environment.

ARM 17.50.1007 (applicable) specifies a solid waste facility may not be located in a seismic impact zone without demonstration, by a Montana licensed engineer, that the solid waste structure is designed to resist the maximum horizontal acceleration in lithified earth material for the site.

ARM 17.50.1008 (applicable) specifies a solid waste facility may not be located in an unstable area (determined by consideration of local soil conditions, local geographic or geomorphologic features, and local artificial features or events, both surface and subsurface) without

demonstration, by a Montana licensed engineer, that the solid waste facility is designed to ensure that the integrity of the structural components will not be disrupted.

ARM 17.50.1009 (applicable) requires that Class II landfills be designed, constructed, and maintained with a run-on and run-off control system to address 25-year storm events.

ARM 17.50.1110 (applicable) prohibits a Class II landfill from causing a discharge of a pollutant into state waters, including wetlands.

ARM 17.50.1116 (applicable) requires that a solid waste management facility be designed, constructed, and operated in a manner to prevent harm to human health and the environment.

ARM 17.50.1204(1)(b) (applicable) requires that a Class II landfill be constructed utilizing a composite liner and leachate collection and removal system that is designed and constructed to maintain less than a 30-centimeter depth of leachate over the liner.

ARM 17.50.1205(3) (applicable) requires that the leachate system provide for accurate monitoring of the leachate level and provide a minimum slop at the base of the overlying leachate collection layer equal to at least two percent.

ARM 17.50.1303 (applicable) identifies requirements for groundwater monitoring.

ARM 17.50.1312 (applicable) identifies requirements for monitoring well abandonment.

ARM 17.50.1403 (applicable) sets forth the closure requirements for Class II landfills. This includes the requirement that the cap be a minimum of 24 inches thick and other criteria, as follows:

1. install a cover that is designed to minimize infiltration and erosion;
2. design and construct the final cover system to minimize infiltration through the closed unit by the use of an infiltration layer that contains a minimum 18 inches of earthen material and has a permeability less than or equal to the permeability of any bottom liner, barrier layer, or natural subsoils or a permeability no greater than $1x10^{-5}$ cm/sec, whichever is less; and
3. minimize erosion of the final cover by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant.

ARM 17.50.1404 (applicable) sets forth post closure care requirements for Class II landfills. Post closure care requires maintenance of the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the cover and comply with the groundwater monitoring requirements found at ARM Title 17, chapter 50, subchapter 13.

Section 75-10-212, MCA (applicable) prohibits dumping or leaving any debris or refuse upon or within 200 yards of any highway, road, street, or alley of the State or other public property, or on privately owned property where hunting, fishing, or other recreation is permitted. However, the restriction relating to privately owned property does not apply to the owner, his agents, or those disposing of debris or refuse with the owner's consent.

Model VCP Compliance: All solid waste at the facility will be removed, transported, and properly disposed of at [insert the name of the facility], an appropriate permitted disposal facility. Therefore, the proposed remedy meets the requirements of these ERCLs.

3.11 Floodplain and Floodway Management Act and Requirements

The following standards are included here to indicate the restrictions on any related activities that might occur in or affect the floodway or floodplain.

Section 76-5-401, MCA and ARM 36.15.601 (applicable) provide that residential, certain agricultural, industrial-commercial, recreational and other uses are permissible within the designated floodway, provided they do not require structures other than portable structures, fill or permanent storage of materials or equipment.

Section 76-5-402, MCA and ARM 36.15.701 (applicable) provide that in the flood fringe (i.e., within the floodplain but outside the floodway), residential, commercial, industrial, and other structures may be permitted subject to certain conditions relating to placement of fill, roads, and floodproofing.

ARM 36.15.602(6) (applicable) provides that domestic water supply wells may be permitted, even within the floodway, provided the well casing and well meets certain conditions.

ARM 36.15.602(5), 36.15.605, and 36.15.703 (applicable) provide that solid and hazardous waste disposal and storage of toxic, flammable, hazardous, or explosive materials are prohibited anywhere in floodways or floodplains.

Section 76-5-402, MCA (applicable) states that the following are prohibited in a floodway: buildings for living purposes or place of assembly or permanent use by human beings; any structure or excavation that will cause water to be diverted from the established floodway, cause erosion, obstruct the natural flow of water, or reduce the carrying capacity of the floodway; and the construction or permanent storage of an object subject to flotation or movement during flood level periods.

Section 76-5-406, MCA and ARM 36.15.216 (applicable) contain substantive factors that address obstruction or use within the floodway or floodplain.

ARM 36.15.604 (increase in upstream elevation or significantly increase flood velocities), ARM 36.15.602(1) (excavation of material from pits or pools), and ARM 36.15.603 (water diversions or changes in place of diversion) (applicable) provide further conditions or restrictions that generally apply to specific activities within the floodway or floodplain.

ARM 36.15.701(3)(c) (applicable) requires that roads, streets, highways and rail lines must be designed to minimize increases in flood heights.

ARM 36.15.701(3)(d) (applicable) provides that structures and facilities for liquid or solid waste treatment and disposal must be floodproofed to ensure that no pollutants enter flood waters and may be allowed and approved only in accordance with DEQ regulations, which include certain additional prohibitions on such disposal.

ARM 36.15.702(2) (applicable) provides the standards applied to residential, commercial or industrial structures.

ARM 36.15.606 (applicable) provides that flood control works comply with safety standards for levees, floodwalls, and riprap.

ARM 36.15.901 (applicable) requires electrical systems to be flood-proofed.

Model VCP Compliance: As stated in section 5.1 of the VCP, the proposed remedy includes reconstruction of a 100-year floodplain along the new stream channel. No development, structures or other features will be constructed in the floodplain. Therefore, the proposed remedy meets the requirements of these ERCLs.