

4.0 REPOSITORY OPERATIONS PLAN AND WASTE ACCEPTANCE CRITERIA

4.1 WASTE ACCEPTANCE CRITERIA

The Big Creek Repository has been designated for disposal of material contaminated by historic mining activity (which include contaminated soils and tailings material, some concrete debris, and some organic (wood) debris). The Big Creek Repository is the primary disposal location for waste generated by human health-based remedial actions authorized by the Bunker Hill OU3 ROD. As such, acceptable waste concentrations for this repository are based on more than 4000 samples collected from residential properties throughout the Coeur d'Alene Basin in support of the Bunker Hill OU3 ROD. Until funding sources change and/or until such time that waste disposal issues are addressed in a Basin-Wide Institutional Controls plan, material disposed in the Big Creek Repository will be limited to projects that are authorized by the Bunker Hill OU3 ROD and funded by resources allocated to support the implementation of CERCLA response actions in the Coeur d'Alene Basin.

Material disposed of at the repository must conform to the current waste acceptance criteria, which are described in Appendix A of the Operations Plan and summarized in this section. To maximize beneficial utilization of available repository capacity, all material disposed of at the repository will have concentrations of mining-related metals exceeding 700 milligrams per kilogram (mg/kg) lead and/or 100 mg/kg arsenic. No material containing listed or regulated constituents, other than Bevill-exempt mining-related waste, will be disposed of at the repository. In addition, no uncontaminated soil or building debris or highly concentrated material will be disposed of at the repository without prior approval by IDEQ and EPA. Maximum concentrations of metals in soil that may be disposed of at the BCR are:

Antimony: 623 mg/kg
Arsenic: 3,610 mg/kg
Cadmium: 194 mg/kg
Lead: 67,100 mg/kg
Zinc: 25,800 mg/kg

4.2 PRETREATMENT REQUIREMENTS

Material containing excess moisture will be dried prior to placement and compaction in the soil disposal area. Drying would be accomplished in a designated drying area near the south end of the site that drains to the storm water management system. Materials must be able to pass the paint filter test prior to placement in the BCR. Very wet material that cannot be readily dewatered will not be accepted at the BCR.

4.3 REPOSITORY OPERATIONS

Repository operations will follow the current Big Creek Repository Operations Plan, which is summarized in this section. The current Operations Plan is dated April 2004. The facility will be accessed from the south, utilizing the existing north/south gravel road located immediately south of Interstate 90, Exit 54. Public access will be restricted by a perimeter fence and locked access gate. There will be no onsite operator, but oversight will be provided by IDEQ and/or their technical support contractor. Site users will be required to provide advance notice to the IDEQ or their oversight contractor, who will provide the user with a key to the access gate and discuss sampling and reporting requirements. Signs will be used to direct site users to the designated waste placement areas. Site users will also be responsible for decontaminating the exteriors of their vehicles using the facility's decontamination area. All sampling data and disposal logs need to be sent to IDEQ within a reasonable timeframe. It is important that all contractors hauling material to the BCR have an alternate disposal site. In the event that conditions require an early closure of the BCR or material does not meet the Waste Acceptance Criteria, the government will not provide an alternate site for material disposal.

IDEQ and/or their technical support contractor will oversee repository operations, but will not maintain personnel at the site unless it is deemed necessary. Responsibilities will include:

- Determining waste placement areas and heights prior to each disposal season, based on requirements for maintaining site stability
- Compacting material placed at the facility
- Conducting periodic (once or twice daily) inspections on days when material is disposed at the repository
- Assessing the overall geotechnical stability of the facility, including periodic inspections for seeps, side slope sloughing, or other signs of distress and collection and analysis of pore water pressure data
- Assessing potential environmental impacts, including sampling and analysis of groundwater and Big Creek surface water

Best management practices (BMPs) will be implemented to limit erosion and offsite transport of waste materials, including channelization of runoff, use of geosynthetic erosion control materials and silt fences, placement of temporary cover soils, and revegetation. Runoff water will be captured in a detention pond for sediment removal.

4.4 POST-CLOSURE REQUIREMENTS

A post-closure plan will be developed that includes requirements for monitoring, maintenance, and land and groundwater use limitations.

4.4.1 Monitoring

Post-closure monitoring will be conducted following the post-closure plan that will be developed for the site and will address the following areas.

Groundwater
Surface water
Settlement
Vegetation
Public Access

4.4.2 Maintenance

A maintenance program will be designed and implemented to provide for the proper functioning and integrity of the cap, storm water management system, fence, and other elements of the repository. Potential maintenance issues include, but are not limited to:

- Maintenance of site BMPs
- Damage to the cap or storm water management system from storm water, animal activities, or human activities
- Erosion of the toe of the side slopes by Big Creek during high flow periods
- Inadequate surface water drainage (ponding) due to settlement
- Inadequate vegetative growth
- Damage to the fence

4.4.3 Land and Groundwater Use Limitations

The State of Idaho has determined that the final land use for the Big Creek Repository will be open space. The site will not be designated for recreation, industrial uses, or private uses without an intensive investigation into the potential for unacceptable impacts to human health or the environment as a result of such use. IDEQ owns the property and will ensure that administrative controls are maintained to ensure appropriate land uses and prohibit development of impacted site groundwater for use as drinking water.

Technical Memorandum
Big Creek Repository Site Evaluation
Draft Final as of June 30, 2004

Table 4-1
Summary of Repository Operations

Operational Element	Description
Type of Material Accepted	Predominately yard soil from Basin cleanup; other contaminated, non-PTM, mining-related waste may also be accepted
Access	Site access controlled using perimeter fence and locked gate. Possession of keys to gate will be limited to authorized contractors and personnel. Entrance at south end of site.
Vehicle Decontamination	Trucks will be decontaminated before leaving site. Loads will be covered during transport.
Waste Pre-Treatment	Excess moisture will be removed on drying pad prior to final placement in BCR. Waste that cannot be readily dewatered will not be accepted. Other treatment (e.g., stabilization) is not anticipated.
Site Stability/Waste Placement	Pore water pressures will be monitored and used to guide waste placement and limit the potential for slope failure.
Dust Suppression	Road treatment (e.g., magnesium chloride) during the active season and temporary cover during the inactive season.
Post-Closure	
Monitoring	Will include surface water, groundwater, vegetation, and settlement monitoring.
Maintenance	Maintenance program will be designed and implemented to provide for proper functioning of final cover, stormwater management system, fence, and other elements.
Land and Groundwater Use Limitations	Planned future land use is open space. IDEQ owns the property and will ensure that administrative controls are maintained.