

Mine Site - Class III Camp Municipal Solid Waste Landfill SOP

1 Purpose and Scope

The Class III Municipal Camp Solid Waste landfill at the Red Dog Mine is used for the disposal of inert wastes and non-salvageable construction and demolition debris. The procedures described below are operational controls designed to minimize any impact on the environment and to comply with Waste Management Permit No. 2016DB0002, Teck Alaska policies and all applicable regulations.

2 Health and Safety

All appropriate and required PPE (hardhats, steel toes, etc.) must be worn when operating in the landfill. Dozer operators should be aware when pushing and compacting that inert waste is an uneven surface with possible voids in the waste. Hazards present can include broken glass, sharp metal surfaces, lengths of pipe, cable, and other items that may tangle in the tracks or protrude through the dozer cabin. Survey the waste before working to identify hazards.

3 Procedure

The following procedures must be followed to operate the landfill in accordance with permit stipulations, Teck Alaska policies and state and federal regulations.

3.1 Signage

Surface Crew will ensure a sign with the following information is maintained at the entrance to the site:

- Facility Identification
- Owner/Operator Name
- Hours of Operation
- Conditions for Use
- Prohibited Wastes
- Emergency Phone Numbers
- Access restricted to authorized personnel.

3.2 Access

Non-Surface Crew personnel are **not** permitted to use the landfill unless prior authorization has been obtained from Surface Crew.

Access to the landfill is restricted by Mine Operations. Anyone entering the area is required to announce their presence to the Mine Operations Supervisor on Channel 1 as they approach the pit entrance, stating name, equipment type and number, and destination.

The Surface Crew Supervisor will notify Mine Operations of authorized users. The Mine Operations Supervisor will deny access to the landfill by unauthorized personnel.

3.3 Landfill Construction

Surface Crew shall ensure the landfill is constructed to accommodate all waste within the ultimate footprint of the landfill and to facilitate closure.

3.4 Litter Control

Loose trash that could become windblown shall be bagged by the generator. Surface Crew will not accept dumpsters containing loose trash.

Mine Operations will stage cover material near the landfill such that Surface Crew can cover loose trash as required to prevent it from becoming windblown.

Surface Crew will collect windblown litter from within the disposal site and along the entrance road and return it to the active disposal area at least once each month during summer.

Surface Crew will collect litter within 500 feet of the site as often as required to prevent it from becoming an aesthetic nuisance.

3.5 Animal Control

To prevent attracting wildlife, putrescible wastes are incinerated and are not permitted in the landfill.

3.6 Prohibitions

The following wastes are prohibited from the landfill. Disposal of prohibited wastes or prohibited activity shall be reported [Environmental](#). Surface Crew will not accept dumpsters containing any of these wastes:

- Unsterilized medical waste
- Food - including food wrappers/containers
- Loose trash - all loose trash to be bagged
- Office / PAC waste
- Oily wastes
- Used oil
- Batteries – (except alkaline)
- Hazardous wastes – including electronics hazardous scrap metal (computer circuit boards, keyboards, monitors, etc.)
- Liquids
- Greases
- Paints – unless dried and non-hazardous
- Transformer oil
- PCB's
- Sludge
- Chemical wastes
- Explosives
- Radioactive wastes
- Contaminated soil – unless approved by Environmental
- Animal carcasses and animal by-products
- Asbestos containing materials

- Regular disposal of economically salvageable or recyclable materials, including, but not limited to: prefabricated buildings, vehicles, drums, tankage, major equipment components, and major scrap components.

The discharge of firearms is also prohibited at the facility.

3.7 Allowed Wastes

Wastes that can be landfilled include the following:

- Wood / wood pallets – *unrecyclable*
- Filter cloths
- Oil filters – gravity hot-drained & crushed
- Cardboard / paper – *unrecyclable*
- Non-hazardous Scrap metal – *unrecyclable*
- Aerosol cans – punctured and drained using an approved puncturing unit
- Alkaline batteries (*unrecyclable*)
- Construction/demolition waste – contact Environmental for guidance
- Tires – non-salvageable
- Drums – non-salvageable, “empty” and crushed
- White Goods – CFC’s (refrigerant) and doors removed from refrigerators/freezers
- Vehicles and Equipment – drained of fluids and petroleum products and with batteries removed
- Sewage Sludge – if approved by Environmental and procedures in Section 3.13 are followed

Refer to the [Waste Information System](#) or contact [Environmental](#) for information on other wastes or if uncertain about disposal methods:

3.8 Burial

Mine Operations shall be responsible for the compaction and covering of waste:

- Consolidate and compact loose waste in lifts not to exceed 4 feet;
- Cover with a minimum of 6 inches of compacted soil as needed to prevent windblown litter;
- Choose cover material using best management practices;
- Ensure the working face does not exceed 200 feet wide by 10 feet high;
- Keep the working face as small as practical to prevent windblown litter.
- Apply at least 12 inches of intermediate cover material to any portion of the landfill that will be inactive for a period of 90 days or more

Mine Operations will ensure a distance of 50 feet is maintained between the disposal area and the boundary of the landfill.

3.9 Surface Water

Mine Operations shall ensure surface water runoff does not flow over, into or through uncovered or covered wastes by constructing and maintaining diversion structures (e.g. ditches or berms).

Mine Operations shall ensure that solid wastes are not placed in surface waters and that any ponded water within the landfill is removed within 30 days of accumulation.

3.10 Snow Removal

Mine Operations shall remove all accumulated snow from landfill operations area prior to spring thaw and clean up any accumulated litter in the snow storage area after the snow melts.

3.11 Fires

Open burning is prohibited at the Main Waste Stockpile landfill. If a fire is observed:

- Call the Mill Control Room on Channel 4 or at extension 911 to report fire;
- The Fire Department shall extinguish the fire immediately;
- The Fire Department or Loss Control shall notify Environmental immediately of the fire;
- Environmental will notify the Department of Environmental Conservation (DEC), Solid Waste Program, Fairbanks office, at 907-451-2108.

3.12 Inspections

Surface Crew shall conduct [Random Dumpster Inspections](#) of waste received at the landfill prior to disposal at the working face in order to check for the presence of hazardous and prohibited wastes. The inspections shall be documented, including the dates of inspection, types of wastes found and any corrective actions taken. Inspection records shall be submitted to Environmental.

Environmental will conduct monthly visual inspections for litter and signs of damage from settlement, ponding, leakage, erosion or operations at the site, signs of combustion or fire in the waste and signs of death or stress to wildlife or vegetation that might be caused by the landfill.

Actions shall be taken to correct deficiencies identified during any of the inspections. When necessary, the Red Dog EMS corrective action program will be implemented.

3.13 Sewage Sludge Disposal

Sewage sludge is not currently disposed of in the landfill area. In the event disposal of sewage sludge in the Main Waste Stockpile landfill is required, the procedures below shall be followed:

Environmental will sample the sludge and have it analyzed for TCLP (EPA Method 1311) and the Paint Filter Test (EPA Method 9095) by a laboratory with a QA/QC plan approved by ADEC. Samples will be collected following a QA/QC plan.

Surface Crew will not dispose of any sludge until approved by Environmental. Only sludge that is shown to be non-hazardous and passes the Paint Filter Test will be landfilled.

Surface Crew will be responsible for disposal of sewage sludge as follows:

- Construct a separate cell for sewage sludge disposal at the disposal area;
- Lime the sludge to a pH = 12 for at least 2 hours;
- Cover the sludge immediately afterward with at least 6 inches of soil or manage otherwise so as to prevent health hazards and odors;
- Record the volume of sludge disposed of at the site and the pounds of lime used and submit copies of records to Environmental.

Environmental will maintain records of analytical results and will submit copies to ADEC within 60 days of receipt of the results. Environmental will also maintain records of annual volumes of sludge disposed of and pounds of lime used.

3.14 Closure

Mine Operations shall notify Environmental of planned closure at least 60 days before closure date.

Environmental shall notify DEC at least 30 days before the site is to be permanently closed and equipment withdrawn.

3.15 Permit Administration

Environmental shall be responsible for permit maintenance. Environmental shall ensure that applications for renewal or amendment of the Permit are made no later than 30 days before the expiration date of the permit or planned effective date of the amendment. A composite sample will be collected and analyzed for PCB's and results submitted with permit renewal application.

3.16 Records and Reporting

Environmental shall maintain the landfill operating records, which include copies of the permit and permit application, operating plans (SOP), inspection records (for 5 years), staff training procedures, analytical data, financial assurance, annual site development and use plans (as-built), and photographs.

Mine Operations shall ensure that the location and volume of waste placed in the landfill are surveyed annually and submit to Environmental an updated plan showing the current status of the landfill and plans for future development by September 1st of every year.

When a cell reaches capacity a final survey must be completed which addresses the following:

- Total volume of waste placed in cell
- Geographical boundary of cell
- Elevation of final waste placement
- Depth of waste placed in cell

Environmental shall submit an updated copy of the site development and use plans to DEC before the permit anniversary date each year (September 30th).

Environmental shall photograph the disposal site as prepared for waste disposal and during waste deposition at least once per year.

At least annually or when there is a change in the incinerator waste stream, a composite sample of ash must be collected and analyzed it for metals using the Toxicity Characteristic Leaching Procedure. A change of waste stream includes any modification to the sewage treatment system affecting the composition of sewage solids. A composite sample consists of ash collected over a three week period including ash from the incineration of typical quantities of sewage sludge.

4 Key Responsibilities

Mine Superintendent: Responsible for ensuring responsibilities of Mine Operations personnel are carried out according to this SOP.

Surface Crew Supervisor: Overall responsibility and accountability for the operation of the landfill.

Environmental Superintendent: Overall responsibility for ensuring permit stipulations and regulations are adequately communicated to Operations.

Environmental Coordinator EMS: Responsible for initiating corrective action when necessary, preparing applications for permit renewal or amendment, submitting annual reports and communicating permit or regulatory changes to Operations.

Environmental Technical Supervisor: Responsible for ensuring monthly inspections are conducted.

Environmental Technician: Responsible for conducting monthly inspections and annual photos

5 Departure from Procedure

This SOP was written to comply with applicable laws and regulations pertaining to the operation of the Class III Municipal Camp Solid Waste Landfill. Failure to follow this procedure could result in to health, safety and/or the environment. Departure from procedures resulting in pollution may also lead to criminal or civil penalties for you and the Company as well as adverse affects on corporate performance and reputation.

6 Definitions

Putrescible: organic material that will decompose producing foul-smelling matter (e.g., food, animal carcass, medical waste).

7 General Requirements

ADEC Waste Management Permit No. 2016DB0002

18 AAC 60 – Alaska State Solid Waste Management Regulations

8 Key Documents/Tools/References

[Waste Information System](#)

[Random Dumpster Inspections](#)

[Monthly Landfill inspection form](#)