

## **PART V: CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS**

### **V.A DEFINITIONS**

For purposes of this Part the following definitions shall apply:

"Facility" means all contiguous property under the ownership or control of the owner or operator seeking a permit under Colorado Hazardous Waste Regulations.

"Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

"Solid waste management unit" means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste.

"Hazardous waste" means a solid waste, or combination of solid wastes, that because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent as defined below.

"Hazardous constituent" means any constituent identified in Appendix VIII of 6 CCR 1007-3 Part 261, or any constituent identified in Appendix IX of 6 CCR 1007-3 Part 264.

### **V.B THE CURRENT STATUS OF CORRECTIVE ACTION AT SWMUs**

The following Solid Waste Management Unit (SWMUs) were identified during the RCRA Facility Assessment (RFA) process as requiring corrective action. The status of that process is discussed below.

#### **V.B.1 THE FOLLOWING SWMUs HAVE YET TO COMPLETE THE CORRECTIVE ACTION PROCESS**

##### **South Dump (SWMU 1)**

This unit received slag and other wastes through out the Permittee's facility, some of which contained hazardous constituents. The possible release to the environment of hazardous waste or Appendix VIII hazardous constituents (6 CCR 1007-3; Part 261) at this SWMU was indicated in

the RFA, and must be investigated. The Permittee must conduct an RFI at this SWMU that includes the soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study must be required at this SWMU. The RFI shall be implemented as specified in Permit Condition V.G.

#### **Station A Waste Pile (SWMU 1a)**

This unit received iron-rich sand and gravel, continuous caster sludge, solid sludge from the blast furnace scrubber, and solid sludge from the BOF Sparkbox Clarifier. The scrubber sludge was tested four times for EP toxicity and was found hazardous for lead once. The BOF clarifier sludge was tested for EP toxicity three times and was found non-hazardous. The possible release to the environment of hazardous waste or Appendix VIII hazardous constituents (6 CCR 1007-3; Part 261) at this SWMU was indicated in the RFA, and must be investigated. The Permittee must conduct an RFI at this SWMU that includes the soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study must be required at this SWMU. The RFI shall be implemented as specified in Permit Condition V.G.

#### **Station C Waste Impoundment (SWMU 1b)**

This unit was used for the disposal of roll scale from the South Mills Treatment Plant and sludge from the South Mills Clarifier, sludge basins and filters. This material is recyclable according to facility representatives. The sludge can contain chromium, copper, manganese, nickel, lead, and zinc. Four analyses of the sludge for EP toxicity resulted in non-hazardous determinations. The possible release to the environment of hazardous waste or Appendix VIII hazardous constituents (6 CCR 1007-3; Part 261) at this SWMU was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU, which includes the soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study must be required at this SWMU. The RFI shall be implemented as specified in Permit Condition V.G.

#### **Station D Surface Impoundment (SWMU 1c)**

This unit received gelatinous, iron-rich sludge from the Wire Mill Treatment Plant basins, the Nail Galvanizing Quenching Sump, and the former Blast Furnace Clarifier, and lime sludge from the neutralization of acid rinse waters. Sludge from the Wire Mill Treatment Plant and the Nail Galvanizing Sump, which contains metal hydroxides, can exhibit the characteristic of EP toxicity for lead. This unit is likely to contain wastes with free liquids. Appendix VIII hazardous constituents (6 CCR 1007-3; Part 261) at this SWMU was indicated in the RFA, and must be investigated. The Permittee must conduct an RFI at this SWMU, which includes the soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study must be required at this SWMU. The RFI shall be implemented as specified in Permit Condition V.G.

#### **Harlem Dump (SWMU 2)**

This unit receives pit bottom wastes from the Rail mill, and foundry sands, both of which contain recoverable steel. Process slag, EAF slag, roll scale, and mill scale are also present at the unit. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA, and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **East Slag Pile (IMS Site along Salt Creek)(SWMU 3)**

This unit contains slag that was hauled to this location from the South dump to construct a dam for the Coal Washery Slurry Lagoons. The dam was never constructed. The slag can contain varying amounts of chromium, copper, manganese, nickel, lead, and zinc. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **Coal Washery Waste Fines Impoundments (SWMU 6)**

The units are two unlined surface impoundments that stored coal washery sludge. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **Fountain Sand and Gravel Filled Lake (SWMU 8)**

The area was previously used for mining of sand and gravel. The area was back filled with slag, coal fines from the coal washery operation and sludge from the North Mills Clarifier. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **North Mills Clarifier Lagoon (SWMU 9)**

The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

#### **New Final Treatment Lagoon (SWMU 10) and Old Final Treatment Lagoon (SWMU 11)**

RFI Completed. Selected Remedy: Deferred further testing or remedial action. This approval of a delay in further testing or remedial action at SWMUs 10 and 11 as a temporary remedy shall reflect the Division's intent to defer further corrective action and any requirement for active remediation and/or closure of the Lagoons and impacted sediments therein at this time. In the future, depending on the resolution of the Facility's ongoing discussions with the Solid Waste Program regarding compliance with Regulation Section 9 requirements and the WQCC and the Water Quality Control Division (WQCD) to retain Salt Creek's status as a component of its industrial sewer system, not waters of the State, the Division may restart evaluation and review of active remediation requirements or closure of the Unit under the Post-Closure Permit in cooperation with WQCD and/or the HMWMD Solid Waste Program's Section 9 impoundment requirements.

#### **#2 STM Lagoon on Salt Creek (SWMU 12)**

RFI Completed. Selected Remedy: Long-Term Monitoring. This approval of Long-Term Monitoring as a temporary remedy for SWMU 12 shall reflect the Division's intent to defer further corrective action and a requirement for active remediation and/or closure of the Lagoon and impacted sediments therein at this time. In the future, depending on the resolution of the Facility's ongoing discussions with WQCC and WQCD to retain Salt Creek's status as a component of its industrial sewer system, not waters of the State, the Division may restart evaluation of active remediation requirements or closure of the Unit under the Post-Closure Permit in cooperation with WQCD and/or the HMWMD Solid Waste Program's Section 9 impoundment requirements.

#### **COKE PLANT SOLID WASTE MANAGEMENT UNITS ("COKE PLANT SWMUs")**

**Coke Plant Surge Pit, Oil Skimmer, and Waste Oil Tank (SWMU 18) - NFA**

**Storage Tank Sump (SWMU 46a) - RFI complete**

**Waste Oil Storage Tanks (SWMU 46b) – RFI complete**

**Coal Washery Sump and Settling Basins (SWMU 49)**

**Coal Washery Waste Loading Area (SWMU 49a) – RFI complete**

**Coking Quench Station Drains and Sumps (SWMU 52a) - RFI complete**

**Coke Fines Sump (SWMU 52c) – RFI complete**  
**Drip Track Drainage Ditch (SWMU 52d) - RFI complete**  
**Heavy By-Products Interceptor Sump (SWMU 52e) - RFI complete**  
**Final Cooler Sump (SWMU 52f)-RFI complete**  
**Tar Decanter Tanks Waste Handling Areas (SWMU 62) - RFI complete**  
**Tar Decanter Tanks (SWMU 63) – RFI complete**  
**Waste Oil Dump Tank (SWMU 66) - RFI complete**  
**Coal Washery Clarifier (SWMU 68) – RFI complete**  
**Coke Plant Scrubber Water Clarifiers (SWMU 71a) – RFI complete**  
**Drip Track Sump (SWMU 71b) – RFI complete**  
**Quench Sump (SWMU 71c) – RFI complete**  
**Coal Tar Loading Area (SWMU 72a) – RFI complete**  
**Saturator Sludge Tanks and Pipes (SWMU 72b) – RFI complete**  
**Deaerating Sump (SWMU 72c) – RFI complete**  
**Benzol Plant Drain (SWMU 72d) – RFI complete**  
**Wash Oil Decanter Tank (SWMU 72e) – RFI complete**  
**Benzol Plant Muck Tank (SWMU 72f) – RFI complete**  
**Light Oil Decanter Tank (SWMU 72g) – RFI complete**  
**Benzol Agitator (SWMU 72h) – RFI complete**  
**Benzol Plant Wastewater System (SWMU 72i)**  
**Interceptor Sumps (SWMU 72j) – RFI complete**

**Remedy Selected:** The Coke Plant SWMUs are located in the west-central part of the Evraz Rocky Mountain Steel facility (Zone 13 534197E 4231367N, Southeast Pueblo, Colorado 7.5-Minute Series Quadrangle, U.S. Geological Survey, North American Datum 1927, photorevised 1974). A multi-part final remedy is required for the Coke Plant SWMUs due to the large size of the impacted area, varied potential future land use options and multiple environmental media that have been impacted. The remedy will consist of:

- The installation and long-term maintenance of a capping system consisting of permeable or low-permeability exposure barriers to prevent human exposure to shallow soil contaminated with constituents at levels greater than risk-based guidelines for human health (residential scenario) as established in “Draft Remediation Objectives Values for Soil” (Colorado Department of Public Health and Environment, 2001 and as updated).
- Selective excavation, with off-site disposal, to remove shallow soil contaminated with listed hazardous waste.
- Installation and operation of a soil vapor extraction (SVE) system to treat deeper contaminated soil and prevent continued degradation of alluvial groundwater beneath the Coke Plant area.

- Monitored Natural Attenuation will be implemented to allow existing biological and abiotic processes to naturally break down the benzene and naphthalene contamination in the alluvial groundwater.

Per conditions V.O.1 through 8 of this permit, the following information is provided:

(a) Technical Features

The specific descriptions of all technical features of the remedy, i.e., the design and location for each type of cap for shallow contaminated soil, removal plan for hazardous waste contaminated soil and waste, design and operation specifications for the deeper soil SVE extraction and treatment system and monitoring plan for groundwater monitored natural attenuation will be provided in the “Corrective Action Work Plan, Coke Plant SWMUs, Rocky Mountain Steel Mills,” to be submitted to the Division for review and approval within 270 days of the approval of Permit Modification for Remedy per condition V.O. of this Permit.

(b) Concentration Levels

The capping system for the Coke Plant SWMUs shall be installed over shallow soils contaminated with hazardous constituents exceeding concentrations determined through application of the risk-based cleanup guidelines for residential levels as approved in the Division’s “Draft Soil Remediation Objectives” (December, 1997 and subsequent revisions), the “Draft Remediation Objectives Values for Soil” (Colorado Department of Public Health and Environment, 2001 and subsequent revisions), and the “Risk Assessment Protocol – Procedure for Calculating Soil Cleanup Objectives for Solid Waste Management Units, Rocky Mountain Steel Mills” (Environmental Strategies, 2000). At the facility’s request, risk-based cleanup goals for an industrial-based scenario may be applied to the site cleanup.

The monitored natural attenuation remedy for alluvial groundwater beneath and downgradient of the Coke Plant SWMUs will achieve the Colorado Basic Standards for Ground Water Colorado Department of Public Health and Environment, Water Quality Control Commission Regulation No. 41 (5 Code of Colorado Regulations 1002-41).

(c) Compliance Requirements

To demonstrate compliance with the concentration levels established through application of the documents listed in (b) above, the Corrective Action Work Plan required to be submitted for review and approval under section V.B., “**COKE PLANT SOLID WASTE MANAGEMENT UNITS,**” part (a), shall contain performance measures consisting of: verification soil sampling and chemical analysis protocols, or an alternative method approved by the Division, to demonstrate the cap adequately prevents human exposure to impacted soil; and long-term groundwater sampling and analysis protocols, approved by the Division.

(d) Management of Wastes

Soils excavated from the Coke Plant SWMUs shall be characterized for their waste content and transported off the facility to commercial solid and hazardous waste disposal facilities. Soils containing hazardous wastes are subject to the standards for the identification, transport and management of hazardous wastes as contained in the Colorado Hazardous Waste Regulations (6 CCR 1007-3). Soils determined to not contain hazardous wastes but found to contain hazardous constituents at levels greater than risk-based guidelines for a residential scenario as noted in the documents in (b) above are subject to disposal under the “Rules and Regulations Pertaining to Solid Waste Sites and Facilities” (6 CCR 1007-2). Contaminated air that is generated by the deeper soil vapor extraction system will be treated to achieve the requirements of the Colorado Department of Public Health and Environment Air Quality Control Commission Regulation No. 3, Stationary Source Permitting and Air Pollutant Emission Notice Requirements (5CCR 1001-5).

(e) Remedy Demobilization Requirements

Equipment used in implementing the remedy shall be decontaminated in accordance with the Decontamination Procedures of the “Colorado State RCRA Permit 95-29-09-01 Field and Laboratory Procedures Manual” (December, 1996) (“FLPM”), incorporated herein by reference. The version of the FLPM in effect at the time of the decontamination activities shall apply. Any waste generated in the course of remedy implementation or generated as a result of decontamination procedures shall be identified, transported and managed as specified in condition V.B., “COKE PLANT SOLID WASTE MANAGEMENT UNITS”(d)“Management of Wastes,” of this permit. All equipment, devices or structures not specified for permanent installation and use as described in the approved work plan shall be removed within thirty (30) calendar days of the completion of remedy construction.

(f) Remedy Implementation Schedule

Construction of the remedy shall commence not later than 90 days after the final approval of the Corrective Action Plan for the Coke Plant SWMUs and shall follow the schedule contained within the approved work plan.

(g) Reports

Within sixty (60) calendar days of completion of the remedy a Construction Completion Report will be submitted to the Division. Information applicable to the remedy shall be reported in formats that conform to requirements of the approved Corrective Action Work Plan.

### **Coal Washery Slurry Pipe (SWMU 53)**

This unit managed sludge from the coal washery clarifier. Leaks in the unit caused documented releases in 1977 and 1979. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **Former Ammonium Sulfate Impoundment (SWMU 54)**

This unit is located west of No. 2 STM. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **Current Nail Galvanizing Baghouse and Dust Box (SWMU 60)**

This unit currently manages nail galvanizing dust that is characteristic for lead. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

### **Nail Degreasing Accumulation Tank Area (SWMU 65)**

This unit managed VG sludge which is a listed hazardous waste (F001) for TCA. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the

vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

#### **Diesel Repair House Recovery Tank (SWMU 73)**

This unit contains diesel fuel from ground water. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

#### **Diesel Fuel Storage Tank Site and Pumphouse Site 2 (SWMU 75a)**

Heavy staining was noted in the vicinity of these units. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

#### **Former Main Fuel Oil Storage Tank (SWMU 75b)**

This was the principal fuel storage tank from 1959 until 1983. A large stain was observed on the soil near the tank, indicating a fuel leak. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

#### **Central Oil Storage Tank (SWMU 75c)**

This tank stored fuel oil. A large area within the berm surrounding the tank shows evidence of releases of waste oils. The possible release to the environment of hazardous waste or Appendix VIII hazardous waste constituents (6 CCR 1007-3; Part 261) was indicated in the RFA and must be investigated. The Permittee must conduct an RFI at this SWMU that includes soils, surface water, and ground water in the vicinity. The RFI must provide sufficient data to determine if a

Corrective Measures Study shall be required at this SWMU. The RFI must be implemented as specified in Permit Condition V.G.

**V.B.2 THE FOLLOWING SWMUs REQUIRE NO FURTHER ACTION AT THIS TIME:**

**The SWMUs listed in this section have met unrestricted use standards except where noted.**

**Station B Surface Impoundment (SWMU 1d)**

No further corrective action is required at this unit at this time under the Corrective Action provisions of this permit. Groundwater contamination that occurred before the unit was closed shall be addressed as specified in Permit Condition IV.

**Station E Waste Pile (SWMU 1e)**

No releases have been detected from the unit. No further corrective action is required at this unit at this time under the Corrective Action provision of this permit. Required groundwater monitoring shall be conducted as specified in Permit Condition IV.

**Clean Fill Dump Area (SWMU 4)**

**Lime Fines Pile (SWMU 5)**

**Slag For Coal Washery Ponds (SWMU 7)**

**Wire Mill Treatment Plant Clarifier (SWMU 15a)**

**Wire Mill Treatment Plant Settling Basins (SWMU 15b)**

**Black Lake (SWMU 16)**

**Ore Preparation Clean-out Pit (SWMU 17)**

**Blast Furnace Filter Press, Conveyor Belt, and Loading Area (SWMU 19)**

**Blast Furnace Clarifier (SWMU 20a)**

**Blast Furnace Settling Basin (SWMU 20b)**

**Blast Furnace Cooling Tower Sump (SWMU 20c)**

**BOF Sparkbox Clarifier (SWMU 21a)**

**BOF Sludge Basins (SWMU 21b)**

**No. 1 Continuous Caster Scale Pit and Sump (SWMU 22)**

**Rod Mill Finishing Scale Pit (SWMU 26)**

**Seamless Pipe Mill No. 1 Piercer Scale Pit (SWMU 27)**

**Seamless Pipe Mill No. 2 Piercer Scale Pit (SWMU 28)**

**Seamless Pipe Mill Stretch Scale Pit (SWMU 29)**

**11-inch Bar Mill Rougher Scale Pit (SWMU 30)**

**11-Inch Bar Mill Finishing Scale Pit (SWMU 31)**

**14-Inch Mill Rougher Scale Pit (SWMU 32)**

**14-Inch Mill Finishing Scale Pit (SWMU 33)**

**14-Inch Mill U-shaped Scale Pit (SWMU 34)**

**Bell Mill North Scale Pit (SWMU 41)**  
**Bell Mill South Scale Pit (SWMU 42)**  
**Grader Blade Scale Pit (SWMU 43)**  
**Acid Neutralization Spent Pickle Liquor Tank Site (SWMU 44)**  
**Old 90 Day Drum Storage (SWMU 45)**  
**Scrap Paper Dumping Area (SWMU 47)**  
**PCB Storage Area (SWMU 48)**  
**BOF Gas Cleaning Silo (SWMU 50)**  
**North and South EAF Baghouse and Silo (SWMU 51)**  
**Seamless Pipe Mill Wastewater Collection Sump (SWMU 52b)**  
**Black Lake Discharge Pipe (SWMU 52h)**  
**North Mills Clarifier Outlet Ditch (SWMU 52i)**  
**Process Sewers (SWMU 52j)**  
**Wire Mill Ditch (SWMU 55a, b, c)**  
**Aeration Basins Number 1 through 4 (Sanitary Sewer Drying Beds) (SWMU 56)**  
**Spent Pickle Liquor Tank Site (SWMU 57)**  
**Special Bar Quality Baghouse (West) (SWMU 58)**  
**Special Bar Quality Baghouse (East) (SWMU 59)**  
**Fence Post Dip Tank (SWMU 61)**  
**VG Sludge Container Storage Area (SWMU 64)**  
**Dry Dust Collector Cyclone (SWMU 69a)**  
**Venturi Scrubber Sludge Basin (SWMU 69b)**  
**Ladle Treatment Baghouse and Loadout (SWMU 70)**  
**Paint Hood Area (SWMU 74)**  
**Hazardous Substance Staging Area (SWMU 76)**  
**Desulfurizer Baghouse Loadout (SWMU 78)**  
**Blast Furnace Electrostatic Precipitators Loadout (SWMU 80)**  
**Nail Quenching Sumps (SWMU 81)**  
**Selenium in Ground Water (SWMU 82)**

**Lime Kiln Baghouse**  
**Ore Preparation Baghouse Location**  
**Sinter Plant Baghouse Location**  
**Sinter Plant Primary Sump**  
**Asbestos Storage Area**  
**BOF Sparkbox**  
**No. 1 Continuous Caster Dry Scale Pit**  
**No. 2 Continuous Caster Dry Scale Pit**  
**Rail Mill Scale/Refractory Storage**  
**Seamless Pipe Mill Crop Drop Sump**  
**Rod Mill Underground Spill Oil Tank**  
**Main Machine Shop Rags/Scrap Oil Drum Storage**  
**Boiler Shop Grease Storage**  
**IMS Waste Oil Sump**

**Wire Mill Acid Regeneration System  
BOF Baghouse Location  
Former Nail Galvanizing Baghouse Loadout**

**V.B.3 THE FOLLOWING SWMUs HAVE BEEN INVESTIGATED AND CDPHE ISSUED A CONDITIONAL NO FURTHER ACTION DETERMINATION BASED ON THE EVRAZ SITE-WIDE ENVIRONMENTAL COVENANT (SWEC) AND MATERIALS MANAGEMENT PLAN:**

**The SWMUs listed in this section may have contamination that is not directly attributable to the Unit in all cases. Using a combination of engineering and institutional controls, potential exposure to contaminants has been limited and are managed under a site-wide environmental covenant that prohibits specific activities. These Units have not met unrestricted use standards, and therefore, further action that has the potential to disturb any one of the SWMUs will trigger the resumption of Corrective Action under the permit.**

**Fountain Sand and Gravel Filled Lake (SWMU 8)**

**North Mills Clarifier Lagoon (SWMU 9)**

**A Corrective Measures Study will be prepared within 60 calendar days of the date that EVRAZ determines this unit will be taken out of service for substantial reconfiguration or repair (for example, reconfiguration of unit drainage structures; site contouring to modify the unit's capacity; or dredging to remove more than 20% of existing sediment/mill scale in the basin), or is decommissioned.**

**South Mills Sludge Basins A & B (SWMU 13a)**

**South Mills Finishing Basin (SWMU 13b)**

**South Mills Oil Skimmer and Waste Oil Tanks (SWMU 14)**

**No. 2 Continuous Caster Scale Pit (SWMU 23)**

**East Rail Mill Scale Pit (SWMU 24)**

**Rod Mill Rougher Scale Pit (SWMU 25)**

**20-Inch Mill Scale Pit (SWMU 35)**

**25-Inch Mill 3-High Scale Pit (SWMU 36) – Engineered controls required (cover)**

**25-Inch Mill Rougher Scale Pit (SWMU 37)**

**25-Inch Mill Finishing Scale Pit (SWMU 38)**

**40-Inch Mill Scale Pit (SWMU 39)**

**45-Inch Mill Scale Pit (SWMU 40)**

**Salt Creek (SWMU 52g)**

**South Mills Clarifier (SWMU 67)**

**Coal Washery Clarifier (SWMU 68)**

**Biotreatment Plant (SWMU 77) – Engineered controls required (cover)**

**IMS Underground Waste Oil Tank (SWMU 79)**

## V.C STANDARD CONDITIONS

V.C.1 Section 3004(u) of RCRA, as amended by HSWA, and 6 CCR 1007-3, Section 264.101 require that permits issued after November 8, 1984, address corrective action for releases of hazardous wastes including hazardous constituents from any solid waste management unit (SWMU) at the facility, regardless of when the waste was placed in the unit.

It also requires corrective action beyond the facility boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the CDPHE that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such action. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

V.C.2 The Permittee must ensure that all plans, reports, notifications, and other submissions to the Director required in this Part are signed and certified in accordance with 6 CCR 1007-3, Section 100.42(k). Two copies of these plans, reports, notifications or other submissions must be submitted to the Director, and sent by mail or hand delivered to:

Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
HMWMD-B2  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

V.C.3 All plans and schedules required by the conditions of this Part are, upon approval of the Director, incorporated into the Schedule of Compliance by reference and become an enforceable part of this Permit. Extensions of the due dates for submittals may be granted by the Director in accordance with the permit modification processes under 6 CCR 1007-3, Section 100.6.

V.C.4 The Director may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in the progress reports required in Permit Condition V.D, or other supporting information.

V.C.5 If the Director determines that further actions beyond those provided in this Part, or changes to that which is stated herein are warranted, the Director shall modify the Schedule of Compliance according to procedures in the permit modification processes under 6 CCR 1007-3, Section 100.6.

V.C.6 All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Part must be maintained at the facility during the term of the Permit, including any reissued Permits.

## V.D REPORTING REQUIREMENTS

V.D.1 The Permittee must submit to the Director signed quarterly progress reports of all Corrective Actions activities (i.e., SWMU Assessment, Interim Measures, RCRA Facility Investigation, Corrective Measures Study) conducted pursuant to the provisions of this Part, beginning no later than ninety (90) calendar days after the Permittee is first required to begin implementation of any requirement herein. The reports shall be due on the 15th day of the month following the reported month. These reports must follow a standard format that, at a minimum, consists of the following topics:

- V.D.1.a Progress made in this reporting period, including engineering work plan development, studies, remedial actions, and work completed;
- V.D.1.b Summaries of all findings in the reporting period, including results of sampling and analysis;
- V.D.1.c Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
- V.D.1.d Project status;
- V.D.1.e Projected work for the next reporting period.
- V.D.1.f A list of all deliverables submitted to the Director during the reporting period.

V.D.2 Copies of other reports (e.g., inspection reports), drilling logs and laboratory data must be made available to the Director upon request.

## V.E NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SOLID WASTE MANAGEMENT UNIT(S)

- V.E.1 The Permittee must notify the Director in writing of any newly-identified SWMU(s) (i.e., a unit not specifically described in this Permit or identified during the RFA and listed in condition V.B. of this Part) discovered no later than fifteen (15) calendar days after discovery.
- V.E.2 After such notification, the Director may request, in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completions of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit.
- V.E.3 Within one hundred and eighty (180) calendar days after receipt of the Director's request for a SWMU Assessment Plan, the Permittee must prepare a SWMU Assessment Plan for determining past and present operations at the unit, as well as any sampling and analysis of ground water, land surface and subsurface strata, surface water or air, as necessary to determine whether a release of hazardous waste including hazardous constituents from such unit(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste including hazardous constituents from the newly-discovered SWMU(s) to the environment.
- V.E.4.a After the Permittee submits the SWMU Assessment Plan, the Director shall either approve or disapprove the Plan in writing.
- V.E.4.b If the Director approves the Plan, the Permittee must begin to implement the Plan within ninety (90) calendar days of receiving such written notification.
- V.E.4.c If the Director disapproves the Plan, the Director shall either (1) notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan, or (2) revise the Plan and notify the Permittee of the revisions. This Director-revised Plan becomes the approved SWMU Assessment Plan. The Permittee must implement the Plan within ninety (90) calendar days of receiving written approval.
- V.E.5 The Permittee must submit a SWMU Assessment Report to the Director no later than forty-five (45) calendar days from completion of the work specified in the approved SWMU Assessment Plan. The SWMU Assessment Report must describe all results obtained from the implementation of the approved SWMU Assessment Plan. At a minimum, the Report must provide the following information for each newly-identified SWMU:

- V.E.5.a The location of the newly-identified SWMU in relation to other SWMUs;
- V.E.5.b The type and function of the unit;
- V.E.5.c The general dimensions, capacities, and structural description of the unit, including any available drawings;
- V.E.5.d The period during which the unit was operated;
- V.E.5.e The specifics on all wastes that have been or are being managed at the SWMU, to the extent available; and
- V.E.5.f The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes including hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

V.E.6 Based on the results of this Report, the Director shall determine the need for further investigations at specific unit(s) covered in the SWMU Assessment. If the Director determines that such investigations are needed, the Director may require the Permittee to prepare a plan for such investigations. This plan will be reviewed for approval as an RFI Workplan under condition V.G.3 of this Part. The Schedule of Compliance (Attachment 14) shall be modified to designate when the Workplan submittal and investigations shall occur, as specified in Permit Condition V.G.3.

#### V.F NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMUS

The Permittee must notify the Director, in writing, of any release(s) of hazardous waste including hazardous constituents no later than fifteen (15) calendar days after discovery. Such newly-discovered releases may be from newly-identified units, from units for which, based on the findings of the RFA, the Director had previously determined that no further investigation was necessary, or from units investigated as part of the RFI. The Director may require further investigation of the newly-identified release(s). A plan for such investigation will be reviewed for approval as an RFI Workplan under condition V.G.3. of this permit. The Corrective Actions Schedule (Attachment 14) shall be modified to designate when the Workplan submittal and investigations shall occur, as specified in Permit Condition V.G.3.

## V.G RCRA FACILITY INVESTIGATION (RFI) WORKPLAN

The RCRA Facility Investigation (RFI) Workplan must be submitted for each SWMU listed under Permit Condition V.B, unless no further action has been indicated.

- V.G.1 The Director may determine on a case-by case basis the extent of the RFI/CMS/Corrective Actions process that will be required, based upon the amount, quality, and type of data available for each SWMU and the surrounding area.
- V.G.1.a If the Director, at the request of the Permittee, determines that previous studies, evaluations, or other investigations constitute adequate investigation of the SWMU, or it is apparent what remedial actions should be taken, the Director may allow the Permittee to abbreviate the actions where appropriate.
- V.G.1.b If the Permittee wishes to obtain such a determination for a SWMU, then no later than sixty (60) days before the RFI Workplan is due as specified in Permit Condition V.G.2, the Permittee must notify the Director in writing of this intent. The Permittee must submit a written request describing the actions that the Permittee wishes to take, the data that supports this request, and a schedule for taking those actions on the date that the RFI Workplan is due.
- V.G.1.c The Director will either approve or disapprove the request for a determination of appropriate actions, and notify the Permittee in writing of the decision.
- V.G.2 RFI Workplans must be submitted as specified in the Schedule of Compliance, Attachment 14, and as follows. If one SWMU is scheduled for a particular year, then the RFI Workplan is due no later than ninety (90) days after the start of that calendar year. If more than one SWMU is scheduled for a particular year, the Workplan for a second SWMU must be submitted no later than one hundred fifty (150) days after the start of that calendar year. The RFI Workplan for a third SWMU shall be due no later than two hundred ten (210) days after the start of that calendar year. All remaining RFI Workplans for SWMUs scheduled in that year shall be due no later than two hundred seventy (270) days from the start of that calendar year. For the purposes of this Permit, year 1 of the Corrective Action Schedule began January 1, 1996.

V.G.2.a The Workplan must describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, extent, direction, rate, movement, and concentration of releases of hazardous waste, including hazardous constituents from specific units or groups of units. The Workplan must detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.

V.G.2.b After the Permittee submits the Workplan, the Director will either approve or disapprove the Workplan in writing. If the Director disapproves the Workplan, the Director must either (1) notify the Permittee in writing of the Workplan's deficiencies and specify a due date for submittal of a revised Plan, or (2) revise the workplan and notify the Permittee of the revisions. This modified Workplan becomes the approved RFI Workplan.

V.G.3 The Director must review for approval as part of the RFI Workplan any plans developed pursuant to condition V.E.6. of this permit, addressing further investigations of newly-identified SWMUs, or condition V.F., addressing new releases from previously-identified units. The Director shall modify the Schedule of Compliance according to the permit modification procedures under 6 CCR 1007-3, Section 100.60, to incorporate these units and releases into the RFI Workplan.

## V.H RCRA FACILITY INVESTIGATION WORKPLAN IMPLEMENTATION

No later than ninety (90) calendar days after the Permittee has received written approval from the Director for the RFI Workplan, the Permittee must begin implementation of the RCRA Facility Investigation according to the schedules specified in the RFI Workplan. Pursuant to condition V.C.3. of this Permit, the RFI must be conducted in accordance with the approved RFI Workplan.

## V.I RCRA FACILITY INVESTIGATION FINAL REPORT

- V.I.1 Within ninety (90) calendar days after the completion of the field investigations of the RFI, the Permittee must submit an RFI Final Report. The RFI Report must describe the procedures, methods, and results of all facility investigations of SWMUs and their releases, including information on the type and extent of contamination at the facility, and sources and migration pathways. The RFI Final Report must present all information gathered under the approved RFI Workplan. The Final Report must contain adequate information to support further corrective action decisions at the facility.
- V.I.2 After the Permittee submits the RFI Final Report the Director shall either approve or disapprove the Report in writing.

If the Director approves the RFI Report, the Permittee must mail a short summary of the approved RFI Report to all individuals on the facility mailing list established pursuant to 6 CCR 1007-3, Section 100.506(c)(I)(ii) and (iii), within fifteen (15) calendar days of receipt of approval.

If the Director determines the RFI Final Report did not fully detail the objectives stated under Permit Condition V.G.1., the Director may disapprove the RFI Final Report. If the Director disapproves the Report, the Director shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of a revised Final Report. The Permittee must notify all individuals on the facility mailing list when the approved Final Report has been approved.

## V.J DETERMINATION OF NO FURTHER ACTION

- V.J.1 Based on the results of the RFI and other relevant information, the Permittee may submit an application to the Director for a Class III permit modification under 6 CCR 1007-3, Section 100.63(c) to terminate the Corrective Action for SWMUs Schedule of Compliance. This permit modification application must contain information demonstrating that there are no releases of hazardous wastes including hazardous constituents from SWMUs at the facility that pose a threat to human health and the environment, as well as information required in 6 CCR 1007-3, Section 100.63(c).

If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during the 60-day public comment period required for Class III permit modifications, the Director determines that releases or suspected releases that were investigated either are non-existent or do not pose a threat to human health and the environment, the Director will prepare a draft permit for the requested modification.

V.J.2 A determination of no further action shall not preclude the Director from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health or the environment. In such a case, the Director shall initiate a modification to the Corrective Action for SWMUs Schedule of Compliance according to procedures for a permit modification, as specified in 6 CCR 1007-3, Section 100.6, to rescind the determination made in accordance with Permit Condition V.J.1.

## V.K CORRECTIVE MEASURES STUDY PLAN

V.K.1 If the Director has reason to believe that a SWMU has released concentrations of hazardous constituents at or above a level that may pose a threat to human health or the environment the Director may require a Corrective Measures Study (CMS) and shall notify the Permittee in writing. This notice shall identify the hazardous constituents(s) that have exceeded the allowable concentration levels as well as those that have been determined to threaten human health or the environment. The notification may also specify remedial alternatives to be evaluated by the Permittee during the CMS.

V.K.2 The Permittee must submit a CMS Plan to the Director within ninety (90) calendar days from notification of the requirement to conduct a CMS.

The CMS Plan must provide the following information:

V.K.2.a A description of the general approach to investigating and evaluating potential remedies;

V.K.2.b A definition of the overall objectives of the study;

V.K.2.c The specific plans for evaluating remedies to ensure compliance with remedy standards;

V.K.2.d The schedules for conducting the study; and

V.K.2.e The proposed format for the presentation of information.

V.K.3 If the Director disapproves the CMS Plan, the Director shall either (1) notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan, or (2) revise the Plan and notify the Permittee of the revisions. This modified Plan becomes the approved CMS Plan.

## V.L CORRECTIVE MEASURES STUDY IMPLEMENTATION

No later than ninety (90) calendar days after the Permittee has received written approval from the Director for the CMS Plan, the Permittee must begin to implement the Corrective Measures Study according to the schedules specified in the CMS Plan. Pursuant to Permit Condition V.C.3., the CMS must be conducted in accordance with the approved Plan.

## V.M CORRECTIVE MEASURES STUDY FINAL REPORT

V.M.1 Within ninety (90) calendar days after the completion of the CMS, the Permittee must submit a CMS Final Report. The CMS Final Report must summarize the results of the investigations for each remedy studied and of any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. The CMS Report must present all information gathered under the approved CMS Plan. The final report must contain adequate information to support the Director in the remedy selection decision making process, described under condition V.O. of the Part.

V.M.2 If the Director determines that the CMS Final Report does not fully satisfy the information requirements specified under condition V.L.2. of this permit, the Director may disapprove the CMS Final Report. If the Director disapproves the Final Report, the Director shall notify the Permittee in writing of deficiencies in the Report and specify a due date for submittal of a revised Final Report.

V.M.3 As specified under condition V.C.4., based on preliminary results and the final CMS report, the Director may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

## V.N REMEDY SELECTION

Based on the results of the CMS and any further evaluations of additional remedies under this study, the Director shall select a remedial alternative(s) evaluated in the CMS that will (1) be protective of human health and the environment; (2) meet the concentration levels of hazardous constituents in each medium that the remedy must achieve to be protective of human health and the environment; (3) control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases that might pose a threat to human health and the environment; and (4) meet all applicable waste management requirements.

## V.O PERMIT MODIFICATION FOR REMEDY

V.O.1 Based on information the Permittee submits in the RFI Final Report, the CMS Final Report, and other information, the Director will select a remedy and initiate a permit modification to this Permit, pursuant to 6 CCR 1007-3, Section 100.60.

The modification must specify the selected remedy and include, at a minimum, the following:

V.O.2 Description of all technical features of the remedy that are necessary for achieving the standards for remedies established under condition V.O.1. of this permit, including length of time for which compliance must be demonstrated at specified points of compliance;

V.O.3 All concentration levels of hazardous constituents in each medium that the remedy must achieve to be protective of human health and the environment;

V.O.4 All requirements for achieving compliance with these concentration levels;

V.O.5 All requirements for complying with the standards for management of wastes;

V.O.6 The requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the remedy;

V.O.7 A schedule for initiating and completing all major technical features and milestones of the remedy; and

V.O.8 The requirements for submission of reports and other information.

## V.P INTERIM MEASURES

The Permittee may propose for approval, or the Director may require, additional interim corrective measures.

## V.Q COMMUNITY RELATIONS REQUIREMENTS

V.Q.1 Except in the case of an emergency, if the Permittee issues a press release or initiates media contact for the purpose of providing information to the media with reference to any permitted activities, including corrective actions, the Permittee

must advise the Director of such press release or media contact, and the contents thereof, at least two (2) working days prior to issuance. Other documents prepared by the Permittee for community involvement purposes related to the site will be submitted to the Director for review and comments at least seven (7) working days in advance of issuance, unless otherwise agreed to.

- V.Q.2 CDPHE will review, evaluate, and comment upon any informational materials prepared to support community involvement activities. Technical assistance in the preparation of such materials will be available from CDH as resources permit.
- V.Q.3 The Permittee will notify CDPHE at least seven (7) working days prior to any community meetings scheduled as part of the Permittee's community involvement efforts.
- V.Q.4. Upon CDPHE approval of the final RFI report, the Permittee must mail a short summary of the final approved RFI report to all individuals on the facility mailing list established pursuant to 6 CCR 1007-3 Section 100.506(c)(I), (ii), and (iii), within fifteen calendar days of the receipt of approval.

**V.R MODIFICATION OF THE CORRECTIVE ACTION COMPLIANCE SCHEDULE**

If at any time the Director determines that modification of the Corrective Action Schedule of Compliance is necessary, he or she may initiate a modification to the Schedule of Compliance according to the procedures specified in 6 CCR 1007-3, Section 100.60.

**V.R.1 CORRECTIVE ACTION COMPLIANCE SCHEDULE SUMMARY**

Below is a summary of the planned reporting requirements pursuant to Part V's Schedule of Compliance:

<b>Facility Submission Requirements</b>	<b>Due Date</b>
Notification of newly-identified SWMUs	fifteen (15) calendar days after discovery
Notification of newly-discovered releases	fifteen (15) calendar days after discovery
Progress reports on all activities	Quarterly
SWMU Assessment Plan for newly-identified SWMUs	one hundred and eighty calendar days (180) calendar days after receipt of request
Revised SWMU Assessment Plan	as determined
Implement SWMU Assessment Plan	ninety (90) calendar days after Director approval
SWMU Assessment Report	forty five (45) calendar days after completion of implementation of SWMU Assessment Plan
RFI Workplan for Newly Identified	as determined

SWMU's or Releases	
Revised RFI Workplan	as determined
Implement RFI Workplan	ninety (90) calendar days after Director approval
RFI Report	ninety (90) calendar after completion of the field investigations of the RFI
Revised RFI Report	as determined
Mail RFI Summaries to Mailing List	fifteen (15) calendar days After Director Approval
CMS Plan	ninety (90) calendar days after notification of requirement to perform CMS
Revised CMS Plan	as determined
Implement CMS Plan	ninety (90) calendar days after Director approval
CMS Report	ninety (90) calendar days after completion of implementation of CMS plan
Revised CMS Report	as determined

#### V.S. FINANCIAL ASSURANCE

The Permittee must post financial assurance for corrective action in the amount of \$2,229,773, in accordance with the Jun 2013 cost estimate filed with the CDPHE.

##### V.S.1

The Permittee must adjust the amount specified in condition V.S for inflation annually. The Permittee must adjust the post-closure cost estimate for inflation within 60 days of the anniversary date of the establishment of the financial instrument(s). The adjustments shall be reported to the CDPHE in accordance with Permit condition I.G.

V.S.2 The Permittee must maintain financial assurance for corrective action during the post-closure period.

V.S.3 The Permittee must demonstrate financial assurance by one or more of the mechanisms described in 6 CCR 1007-3, Part 266.