EVRAZ | EVRAZ INC. NA

Evraz Rocky Mountain Steel

SPCC PLAN

REVISED September 2015

PART II
DETAIL PLANS

EVRAZ ROCKY MOUNTAIN STEEL

SPCC PLAN

REVISED SEPTEMBER 2015

PART II

SECTION I

SPILL
PREVENTION CONTROL

and

COUNTERMEASURE
PLAN

EVRAZ ROCKY MOUNTAIN STEEL

SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

NAME OF FACILITY: Evraz Rocky Mountain Steel

TYPE OF FACILITY: Steel Manufacture

LOCATION OF FACILITY
2100 South Freeway
Pueblo, Colorado 81004

DATE OF INITIAL OPERATION: Late 1800s.

NAME AND ADDRESS OF OWNER OR OPERATOR
CF&I Steel, L.P. dba EVRAZ Rocky Mountain Steel
1612 East Abriendo
Pueblo, Colorado 81004

Designated person accountable for oil spill prevention at facility:
Name: Craig West
Title: Manager Environmental
Telephone Number: (719) 561-6536

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.

Signature of Professional Engineer

9/10/15
Date

Karlene R. Thomas, P.E.
Name of Professional Engineer

31909
Registration No.

Colorado
State

COLORADO LICENSED
KARLENE R. THOMAS
9/10/15
31909
PROFESSIONAL ENGINEER

PART II

SECTION I

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

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APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Facility Name: Evraz Rocky Mountain Steel
Facility Address: 2100 South Freeway 81004

1. Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
   ___ Yes _X_ No

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?
   __ Yes _X_ No

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C of 40 CFR Part 112 or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
   __Yes _X_ No

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C of 40 CFR Part 112 or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?
   __ Yes _X_ No

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
   ___ Yes _X_ No

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: _____
Name (please type or print): Craig West
Title: Environmental Manager
Date: _____

Cross-Reference Table

SPCC Plan Requirements

SPCC Rule Section	Description	Section in Plan
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112.3 (e)	Location of SPCC Plan	Pt. II, Section 1.0
112.5	Plan Review	page 6
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112.7	Cross-Reference with SPCC Rule	page 4
112.7 (a)(1)(2)	Conformance with Requirements	Pt. II, Introduction
112.7 (a)(3)	Facility layout	Pt. II, Section 1.0
112.7 (a)(3)(i)	Containers contents and capacity	Pt. II, Table 1
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112.7(c)	Secondary containment and diversionary structures	Pt. II, Section 5.2
112.7 (d)	Contingency planning	Part I
112.7(e)	Inspections, tests and records.	Part II, Section 5.9
112.7 (f)	Employee training and discharge prevention procedures.	Part II, Section 5.11
112.7 (g)	Security	Part II, Section 5.10
112.7 (h)	Loading/unloading	Part II, Section 5.4
112.7 (i)	Brittle fracture evaluation requirements	N/A
112.7 (j)	Conformance with State requirements	Pt. II, Introduction
112.8(a) 112.12(a)	General and specific requirements for onshore facilities	Part II
112.8 (b)	Facility drainage	Pt. II, Section 5.1

SPCC Rule Section	Description	Section in Plan
112.12 (b)		
112.8 (c) 112.12 (c)	Bulk storage containers	Pt. II, Section 5.2
112.8 (d) 112.12 (d)	Facility transfer operations, pumping, and facility process	Pt. II, Section 5.2
112.9 112.13	Requirements for onshore production facilities	N/A
112.10 112.14	Requirements for onshore oil drilling and workover facilities	N/A
112.11 112.15	Requirements for offshore oil drilling, production or workover facilities	N/A

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

GENERAL INFORMATION

This Spill Prevention Control and Countermeasure (SPCC) Plan has been prepared in accordance with the requirements of the SPCC guidelines in 40 CFR 112. This SPCC Plan will be reviewed annually as required by CDPS Permit #CO-0000621. The Plan must be amended should one of the following occur. Records of reviews must be maintained. See Appendix A for SPCC Plan Review Form.

- There is a change in facility design, construction, operation or maintenance that materially affects the facility's potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines;

- A more effective control or prevention technology is made available which will significantly reduce the chances of a spill event; or

- As required by the EPA or the State after review of the Plan.

Any technical SPCC Plan amendments must be certified by a registered Professional Engineer (P.E.) and implemented as soon as possible, but no later than six months after a facility change or the SPCC Plan review. Non-technical Plan amendments do not need to be certified by a P.E.

In addition to review and certification, a record of the following activities must be maintained:

- Primary and secondary containment inspections and corrective actions;

- All spill and release events;

- SPCC Plan training records;

- Changes in physical plant conditions that may be inconsistent with the current Plan; and

- Changes in maximum storage inventory or other physical plant changes.

1.0 FACILITY INFORMATION

1.1 LOCATION AND SPILL HISTORY

Evraz Rocky Mountain Steel (ERMS) is a steel manufacturing plant located at 2100 South Freeway in Pueblo, Colorado. ERMS manufactures various steel products including seamless pipe, railroad rail, and rod/bar. The facility is comprised of several manufacturing buildings including an electric arc furnace (EAF) shop (Steelmaking), a

Rail Mill, a Bar/Rod Mill, and a Seamless Mill. The facility occupies approximately 2,004 acres. The facility layout is shown on the drawings provided in Appendix E of Part 1.

The types and quantity of oil storage associated with site operations are provided on Table 1 and described in Section 5.2.1.

The facility has experienced the following reportable petroleum spill event between the dates of June 2006 through August 2015:

EVRAZ Rocky Mountain Steel (ERMS) personnel observed an oil sheen at Waste Water Discharge point 001A exiting to the Arkansas River on December 23, 2009. Per ERMS Waste Water Permit # CO-0000621 ERMS took an Oil and Grease grab sample and started procedures to mitigate the discharge being observed. The Environmental department started investigating as to the source and making calls to the respective departments for their help. At the same time materials and personnel were coordinated and gathered to install our emergency oil boom at our discharge point 001A. At approximately 3:00pm on December 22nd, the oil boom was in place and functioning. A very small oil sheen was still observed exiting but looked to be more residual than going past the boom. The next morning on 12-23-09, very small oil sheen pockets looked to be coming under the oil boom. Oil absorbent socks were placed next to the boom around 11:00 am and no sheen was observed when checked later in the afternoon at 3:44 pm. Additional Oil and Grease samples were taken the afternoon of the 22nd and the morning of the 23rd. Report # 92967 was made with the NRC in the morning of 12-23-09 and also report # 2009-0556 was made with the CDPHE as well. The oil boom remained in place and the oil absorbent socks were changed out and replaced as needed until the spill was addressed.

1.2 REQUIREMENTS AND RESPONSIBILITY

The purpose of the Plan is to provide an outline for proper emergency response in the event of a release, and to prevent discharges of oil from reaching navigable waters of the United States. Oil is defined in 40 CFR 112 as “oil of any kind or form, including, but not limited to petroleum fuel oil, sludge oil, oil refuse and oil mixed with wastewater other than dredged spoil.” Spill and leak prevention measures, and the training of employees, are the primary methods used to minimize the chances of an accidental discharge. Subsequent methods include secondary containment to prevent accidental releases from reaching waters of the United States. Copies of this Plan will be available at:

- Evraz Rocky Mountain Steel, Environmental Office, 2100 South Freeway, Pueblo, Colorado

This Plan has been designed to meet the requirements of 40 CFR 112, "Oil Pollution Prevention," as outlined in Section 112.7 for SPCC planning. This facility is not a Substantial Harm Facility as defined in the Oil Pollution Act of 1990, and therefore a Facility Response Plan as outlined in Section 112.20 is not required (Page 3).

2.0 POTENTIAL SPILLS

The expected modes of potential major failure or accident in which oil could be spilled from the facility are listed below. Specific spill direction scenarios are discussed in Section 5.2.1.

- Storage tank leak or failure: The maximum quantity of oil discharged is based on the capacity of the largest tank at the facility:
  - Rate of flow: The rate of flow varies depending on the size and location of tank failure.
  - Total quantity of oil discharged: The total quantity would not exceed the shell capacity of largest aboveground storage tank (AST) which is 18,000 gallons.
  - Direction of flow: For the largest tank, oil would flow into a concrete cellar that ultimately drains to the wastewater treatment system, which has sufficient oil skimming capabilities throughout the system. The flow pathways for all storage tanks are described in Table 1.

- Tank Overflow:
  - Rate of flow: The rate of flow depends on the delivery system and pumping capacity. The fuel tanks are filled by tank trucks or drums and totes. Oil also is supplied to the facility in 55-gallon drums and in various sizes of totes ranging from 300 to 600 gallons.
  - Total quantity of oil discharged: It is estimated that a maximum of 500 gallons of oil could be discharged, based on the maximum pumping rate during oil delivery.
  - Direction of flow: For those tanks equipped with containment, spilled oil would flow into containment areas. Spilled oil from tanks and containers not equipped with containment would flow onto the ground. All facility drainage (i.e., stormwater, wastewater, sanitary wastewater) discharges to the facility's wastewater treatment system, which has sufficient oil skimming capabilities throughout the system. (See Table 1.)

- Leak or failure during loading/offloading of tank trucks:
  - Rate of flow: The rate of flow varies depending on pumping system.
  - Total quantity of oil discharged: The quantity discharged varies with the delivery rate and the time necessary to shut off delivery valves. The loading/offloading procedure is staffed at all times. It is estimated that a maximum of 500 gallons of oil would be discharged based on the maximum pumping rate.
  - Direction of flow: Secondary containment has not been provided for loading/offloading areas. However, all drainage at the facility (including all storm drains) enters the facility's wastewater treatment system, which has sufficient oil skimming capabilities throughout the system.

3.0 CONTAINMENT, DRAINAGE CONTROL, AND DIVERSIONARY STRUCTURES

The volumes of the secondary containment and/or a description of diversionary structures for ASTs to prevent oil discharge from reaching a navigable water course are provided in Table 1. Containment alone is not practical for several tanks onsite. However, in those cases, diversionary systems are used to control any tank failure. Additionally, all drainage at the facility (including all storm drains) enters the facility's wastewater treatment system. A contingency plan is included as Part 1 of the SPCC Plan. Spill control materials (e.g., sorbent pads and booms) are available at the facility as presented in Part 1, Appendix H.

4.0 DEMONSTRATION OF IMPRACTICABILITY

Not applicable. Secondary containment and/or diversion are practical at this facility.

5.0 SPECIFIC REQUIREMENTS

5.1 FACILITY DRAINAGE

A general description of the facility's drainage systems is provided below.

The facility wastewater treatment system consists of three subsystems: the South Mills Treatment System, the North Mills Treatment System, and the domestic sewer system. Outfalls from the systems combine and flow into the Salt Creek Channel, which discharges to two treatment lagoons. The effluent from the second or final treatment lagoon discharges to the Arkansas River. These systems are discussed below.

- South Mills Treatment System. Drainage (storm and industrial) from the southern portion of the plant (including the Seamless Mill and Bar/Rod Mill) flows into the South Mills Treatment System. Drainage from the southern portion of the facility discharges to the South Mills Water Recycling System where a clarifier removes both floating and settleable materials. The volume of oil that can be held in this location is approximately 50,000 gallons. The clarified wastewater is then filtered prior to reuse or discharged. The filter back wash water discharges to settling ponds that are equipped with oil skimmers. The final discharge of the South Mills Water Recycling System flows to Salt Creek Channel, which drains to the first final treatment lagoon.

- North Mills Treatment System. Drainage from the northern portion of the plant (including the Rail Mill and Steelmaking) flows to the North Mills Treatment System. This system consists of a settling basin (North Mills Settling Basin) equipped with a baffle and oil skimming facilities. The volume of oil that can be held is approximately 55,000 gallons. The settling basin discharges to Salt Creek Channel, which flows to the first final treatment lagoon.

- Domestic Treatment Plant. Domestic sewage discharges to the domestic sewage treatment plant. The treated water is discharged to the North Mills Treatment System.

- Salt Creek Channel and Final Treatment Lagoons. Salt Creek Channel flows into the first final treatment lagoon, which is equipped with a boom. The volume of oil that can be held is approximately 180,000 gallons. The discharge from this lagoon flows into the second or final lagoon. The final lagoon (approximately 51 acres in size) is also equipped with an oil boom. Anchors are installed near the sampling house for attachment of a second boom if necessary. The spare boom is located at the Rail Anchor building. The effluent from the final lagoon discharges to the Arkansas River.

5.2 BULK STORAGE CONTAINERS

5.2.1 Tank Description

Table 1 lists the bulk storage containers located at this facility. The table includes the bulk storage container location; storage content and size; material of construction; fail-safe features; and containment/diversionary structure, size, and drainage. The approximate location of bulk storage containers is shown on Drawing #69289. The containers have all been assigned a name and labeled; additionally, a photographic record of the majority of the containers has been completed. The photographic record is maintained by the Environmental Department. General Liquid Container Management policies are presented in Appendix C. Empty Drum Management Policies are presented in Appendix D.

A discussion of the tanks onsite and major oil storage areas (by area) is presented below.

- Bar/Rod Mill

  Rougher and Finishing Scale Pit Tanks. Two 400-gallon used oil tanks are located at each of the three scale pits (one finishing and two roughing scale pits) for a total of six tanks in this area. Skimmed oil from the pits is collected in the 400-gallon tanks. The tanks are located within a concrete bermed area that drains into the individual scale pits. The three scale pits discharge to the South Mills Treatment System.

  Oil Cellar "A". Oil Cellar "A" contains the following four reservoir tanks:

  - 2,300-gallon tank of hydraulic oil
  - 1,700-gallon tank of lube oil
  - 110-gallon tank of lube oil
  - 600-gallon tank of hydraulic oil.

No sumps or drains are located within Oil Cellar "A". Spilled oil would flow out of the cellar toward a sump located in an adjacent room, which drains to a scale pit.

Oil Cellar "B". Oil Cellar "B" contains the following seven reservoir tanks:

- 30-gallon tank of lube oil
- 18,000-gallon tank of lube oil
- 300-gallon tank of hydraulic oil
- 110-gallon tank of lube oil
- 750-gallon tank of air/oil
- 670-gallon tank of hydraulic oil
- 80-gallon tank of hydraulic oil.

The slope of the concrete floor would direct product toward drains within the cellar which discharge to the south scale pit.

No. 1 Oil Cellar. Oil Cellar No. 1 contains the following five reservoir tanks:

- Two 4,900-gallon tanks of lube oil
- Two 2,400-gallon tanks of lube oi1
- One 400-gallon tank of hydraulic oil.

Drains within the cellar discharge to the south scale pit.

No. 2 Oil Cellar. Oil Cellar No. 2 contains the following five reservoir tanks:

- Three 1,500-gallon tanks of lube oil
- Two 400-gallon tanks of hydraulic oil.
- Two 200-gallon tanks of lube oil.

Drains within the cellar discharge to the middle scale pit.

Oil Storage Area. Numerous 55-gallon drums and totes of various sizes, ranging from 300 to 600 gallons, are located in the southeastern portion of the Bar/Rod Mill, on a concrete floor. The drums and totes contain various oils (lube oil, hydraulic oil, etc.). No drains are located in this area. Spills in this area would be contained within the building.

- Seamless Mill

Scale Pits Tanks. Skimmed oil from the two scale pits at the Seamless Mill is collected in two 500-gallon portable tanks. The tanks are positioned adjacent to the scale pits until full. Once the tanks are full, they are moved

to a central transfer area for collection by the oil recycling company. There are currently two portable tanks in use at the scale pits. No drains are located in the area of the scale pits or transfer area. Spills in these areas would be contained within the building.

Hydrostatic Test Area. A 500-gallon used oil tank is located at the hydraulic test area, on a concrete floor. No drains are located in this area. Spills in this area would be contained within the building.

Oil Storage Areas. Numerous 55-gallon drums and totes of various sizes (totes range from 300 to 600 gallons), are located in the south-central portion (central west bay) of the Seamless Mill, and in the Oil House located to the north of the mill. The drums and totes contain various oils (lube oil, hydraulic oil, etc.). No drains are located in this area. All containers are stored on a concrete floor and spills in this area would be contained within the building.

Oil Cellar No. 1. A 5,000-gallon lube oil tank is located in Oil Cellar No. 1. Drains within the cellar discharge to the scale pit.

Oil Cellar No. 2. A 5,000-gallon lube oil tank is located in Oil Cellar No. 2. Drains within the cellar discharge to the scale pit.

- Service Station Area

  Tanks. A 10,000-gallon diesel tank and a 6,000-gallon gasoline tank are located west of the service station area. Each tank is located within a concrete containment berm equipped with a drain valve.

- St. Charles Reservoir

  Tanks. The following three ASTs are located at the St. Charles Reservoir screening facility: a 1,000-gallon diesel, a 1,000-gallon gasoline, and a 500-gallon kerosene tank. The tanks are located within a concrete containment area equipped with a drainage valve.

- South Mills Treatment System

  Clarifier Skimming's Tank. Skimmed oil from the clarifier drains to a 1,000-gallon used oil tank located within a concrete aboveground vault.

  Back Wash Pond Skimming's Tanks. Skimmed oil from the back wash ponds is collected in up to four 540-gallon used oil tanks. No containment is provided for these tanks. However, the tank areas are sloped towards the ponds. Therefore, spilled oil would drain into the pond and be recollected.

- Garage Area

  Inside Drums Totes/Outside Tanks. A 100-gallon diesel tank and a 300-gallon used oil tank are located along the west outside wall of the garage. A metal stock tank provides containment for leaks from the 100-gallon diesel tank. A plastic secondary containment system provides containment for the 300-gallon used oil tank. Additionally, various 55-gallon drums and totes are stored in the garage area, to containerize new oil. Spilled oil would flow onto the ground and could enter a nearby storm drain, which discharges to the facility's wastewater treatment system, which has sufficient oil skimming capabilities.

- Storage House Area

  Butler Oil House. This building is occasionally used for storing drums and totes of miscellaneous new oils. Typically, only deliveries of oil in original product containers are made in this area and is not used for long term storage. No drains are located in the building. Spills would be contained with the building.

  Unloading Area. After delivery, new oils are temporarily stored in 55-gallon drums and in 300 to 600-gallon totes at the outside unloading area. No drains are located in this area. Spilled oil would flow onto the concrete pad and migrate to the surrounding areas. No drains are located in this area.

- Steelmaking

  Outside Bulk storage containers. A 300-gallon gasoline tank, a 500-gallon diesel tank, and a portable 300-gallon diesel tank are located south of Steelmaking. These tanks are located within a concrete bermed area. However, as the tanks are located on a steel platforms, ranging from two to six feet in height, a catastrophic rupture or a puncture from the sides of the tanks would likely flow onto the ground. No drains are located in this area.

  David Joseph Tank. Two 500-gallon used oil tanks and several 55-gallon drums of used oil are located at the David Joseph facility (a tenant at ERMS). All of these containers are located within a concrete bermed area, which would contain a spill of at least 500 gallons.

  Oil Storage Building. Several 55-gallon drums, are located in the Oil Storage Building. The drums contain various new oils (lube oil, hydraulic oil, etc.). No drains are located in the building. Spills in this area would flow onto the floor of the building and migrate outside to the surrounding ground. No drains are located in the immediate area.

  Two additional portable tanks are located in the steelmaking area. A 500 gallon gasoline tank (Alpine) is located in a steel stock tank which provides

approximately 700 gallons of secondary containment and a 500 gallon diesel tank (PSC) is located in a plastic stock tank which also provides 700 gallons of secondary containment.

- Rail Mill

Scale Pits Tanks. Two 400-gallon used oil tanks are located at each of the two scale pits (east and west scale pits) for a total of four tanks. Skimmed oil from the pits is collected in the 400-gallon tanks. The tanks are located within a concrete bermed area that drains into the individual scale pits. The two scale pits discharge to the North Mills Treatment System.

Oil Cellar B (Shears). Oil Cellar B contains the following two reservoir tanks:

- 3,500-gallon tank of hydraulic oil
- 850-gallon tank of hydraulic oil.
  800-gallon tank of hydraulic oil.

The cellar is equipped with a sump that discharges to the scale pit.

Oil Cellar C (36”). Oil Cellar C contains the following two reservoir tanks:

- 3,500-gallon tank of lube oil
- 800-gallon tank of hydraulic oil
- 500-gallon tank of hydraulic oil – inactive.

The cellar is equipped with a sump that discharges to the scale pit.

Oil Cellar D (Rougher). Oil Cellar D contains an 800-gallon hydraulic oil reservoir tank. The cellar is equipped with a sump that discharges to the scale pit.

Oil Cellar E (Intermediate). Oil Cellar E contains a 2,300-gallon hydraulic oil reservoir tank and a 500-gallon grease tank. The cellar is equipped with a sump that discharges to the scale pit.

West Side Rougher. A 1,000-gallon lube oil tank is located in this area.

South of Roll Shop – A 500-gallon diesel and a 500-gallon gasoline tank are located in this area. They are located within stock tanks, which will provide containment.

Intermediate #1 and #2. A 6,000-gallon lube oil tank is located in this area. Spills from this tank would be contained within the building.

West Oil Storage Area. Several 55-gallon drums and totes of various sizes, ranging from 300 to 600 gallons, are located outside in the West Oil Storage Area. The drums and totes contain various new oils (lube oil, hydraulic oil, etc.). No containment is provided for this area, and no drains are located in this area.

- Davis Wire Mill

  Boiler House. A 500-gallon diesel tank used for the emergency fire pump is located within the Davis Wire Mill. The tank is equipped with steel containment; any spills would be confined to the tank and building.

- West of 6 house

  North Exterior Storage. Four, 300-gallon and two, 500-gallon totes used to store vacuum truck used oil are located north of the Grader Plant. No containment is provided.

- Grader Blade Plant Exterior

  A 1,000-gallon steel tank is located along the southern exterior of the Grader Plant for a backup generator.

- Maintenance

  Machine Shop. A 180-gallon used lube oil tank is located within the Machine Shop. Spills from this tank would be contained within the shop. One 500-gallon gasoline tank and one 500-gallon diesel tank are located adjacent to the south of the Machine Shop. Each of these tanks are located in a separate 550-gallon stock tank. Any spills from these tanks would be contained in the stock tanks.

- North Mills Treatment System

  North Mills Settling Basin. Skimmed oil from the North Mills Settling Basin is collected in a 400-gallon used oil tank. The tank is situated above the basin. Spills from the tank would flow into the basin and be recollected.

All tanks shells and bottoms are reportedly constructed according to American Petroleum Institute, American Society for Testing and Materials, or Underwriters Laboratory specifications. The tank materials and construction reportedly are compatible with stored products at storage temperature and pressure.

Several tenants operating at ERMS own and maintain ASTs. These ASTs (except the used oil tanks located at David Joseph) are not included in this SPCC Plan.

5.2.2 Secondary Containment

The secondary containment system for each bulk storage container is described in Table 1 and Section 5.2.1 above. Specific sized secondary containment is not practical for all bulk storage containers at the facility. However, general secondary containment has been provided for the entire facility. General secondary containment is provided by diversionary structures which direct spills and/or stormwater runoff from the facility to the onsite wastewater treatment system. The onsite wastewater treatment system has sufficient oil skimming capacity for the largest possible spill. The facility has a National Pollutant Discharge Elimination System (NPDES) permit which requires tracking of wastewater flow and testing of discharge from the onsite wastewater treatment system. All flow and water testing records are maintained in the environmental office onsite.

5.2.3 Drainage of Rainwater

Generally, precipitation in containment areas is allowed to evaporate. If necessary, precipitation that accumulates within containment areas equipped with valves is drained onto the ground, and precipitation that accumulates within containment areas not equipped with drains would be pumped onto the ground. Accumulated stormwater is inspected for an oil sheen prior to pumping or releasing. Drainage activities are conducted under the supervision of qualified ERMS personnel during day light hours. Drainage activities are recorded on the monthly bulk storage tank inspection sheets.

5.2.4 Underground Storage Tanks

No underground storage tanks are located at this facility.

5.2.5 Partially Buried Storage Tanks

No partially buried storage tanks are located at this facility.

5.2.6 Aboveground Tank Inspection/Testing

Informal inspections of the bulk storage containers, including secondary containment systems, are performed during daily or weekly routine activities at the facility. Aboveground valves, pump houses, and pipelines are visually observed at least weekly as part of normal operations. Any indication of deterioration or leakage that may cause a spill or accumulation of oil inside containment areas is reported to appropriate personnel.

A documented inspection of the bulk storage containers and secondary containment systems is completed monthly to check tank integrity and evidence of leaks. These inspections are performed by personnel trained to make such inspections. If signs that the

container may be failing (e.g., obvious corrosion, oil stains on the exterior of the tank, bulges or dents) are observed, then a more thorough inspection will be warranted. A thorough inspection should include measuring wall thickness and/or inspection of the interior surfaces of the tank.

The monthly inspections will include an observation of the following (if applicable):

- Overall tank condition including:
    - Condition of paint
    - Tank corrosion
    - Bulges or dents
    - Condition of supports and foundations
    - Labeled properly and legible
    - Other tank damage
- Condition of secondary containment
    - Presence of accumulated precipitation, trash or other debris in the secondary containment
    - Determination if precipitation in secondary containment basin needs to be released

- Drain/by-pass valves are closed and secured
- Associated piping, pumps, valves, etc. are in good condition and not leaking
- Evidence of leaks including
    - Standing oil
    - Oil sheen on standing water
    - Oil stains on concrete, equipment, or soil
    - Distressed vegetation
    - Unexplained loss of inventory.
- Tank controls/monitors are in good working order
- Tank overfill/overflow systems are in good working order.
- Security Measures
    - Disconnect or emergency shut-off switches operational
    - Lighting
    - Locks

The results of the inspection will be recorded on the SPCC Inspection form provided in Appendix A. If the monthly inspection indicates that actions need to be taken for proper spill prevention, the details will be recorded on the inspection form. In addition to the monthly inspection, all associated containment equipment, sumps, skimmers, valves, piping etc., shall be cleaned, maintained, and checked for proper operation on a routine, as-needed basis. Maintenance schedules are maintained and followed for each part of the plant.

The revised SPCC rule requires that aboveground bulk storage containers (aboveground storage tanks) be tested for integrity on a regular schedule and when material repairs are conducted on the container. Integrity testing includes non-destructive shell testing such as

hydrostatic, radiographic, ultrasonic, acoustic emissions or another system of non-destructive testing. The EPA states that periodic integrity testing is required, but does not delineate the frequency of testing, rather stating that testing should be conducted according to industry standards. Industry standards for integrity testing of the type of tank located on Site varies from five years to 10 years, depending on the condition of the tank.

The revised rule also states that for certain smaller containers in which internal corrosion poses minimal risk of failure, which are inspected at least monthly, and for which all sides are visible (i.e., the container has no contact with the ground), visual inspections alone suffice for the integrity testing, subject to good engineering practices. Most ASTs at the Site meet this requirement, in that the primary tanks are protected from corrosion, have general secondary containment systems which provide at least 100% containment, and are not in contact with the ground.

Some hydraulic tanks are in contact with the ground. Given the construction of these tanks, integrity testing is not practical. All hydraulic tanks are part of the general secondary containment system at ERMS.

Finally, the shell of the tanks will be tested by a non-destructive method when deterioration is noted or material repairs are made. Records of these testing events will be maintained.

5.2.7 Piping

There is no buried or out-of-service piping at the facility with the exception of the two ASTs at the Service Station. The two pipes from the ASTs to the fuel pumps are of double walled construction. Pipe supports have been designed to minimize abrasion and corrosion and to allow for expansion and contraction. All valves and piping will be inspected monthly (Section 5.9). Warning signs have been posted in areas where there is a potential for vehicles to damage piping (Section 5.5).

Piping will be tested using integrity testing and leak detection methods whenever there is any modifications, relocation, or replacement performed.

5.2.8 Heating Coils

No tanks equipped with internal steam heating coils are at this facility.

5.2.9 Fail-Safe Devices

Fail-safe devices for tanks at this facility are listed in Table 1. In general, most of the tanks containing new oil are equipped with gauges. The two ASTs at the Service Station area also are equipped with alarms. Tanks are gauged regularly by facility personnel to check product height. The tanks at this facility are filled by tank trucks and from drums and totes. Filling operations are overseen by facility personnel.

5.2.10 Plant Effluents

All plant effluents discharge into the Arkansas River. The wastewater treatment facilities are observed frequently enough to detect possible system upsets that could cause an oil spill event. The effluent from the final lagoon is also routinely sampled as required under the facility's CDPS #0000621 discharge permit.

5.2.11 Visible Oil Leaks

If visible oil leaks from tank seams, gaskets, rivets and bolts are observed that may cause significant accumulation of oil in bermed areas, they will be promptly corrected.

5.2.12 Mobile or Portable Storage Containers

Several portable oil tanks are located at this facility. Portable tanks are located so as to prevent spilled oil from reaching navigable waters and are described in previous sections.

5.2.13 Motive Power Containers

SPCC Rule amendments approved by the EPA in December of 2006 exempted motive power containers from the SPCC rule. Motive power containers are defined as any onboard bulk storage container used primarily to power the movement of a motor vehicle, or ancillary onboard oil-filled operational equipment. Therefore, the fuel tanks on automobiles, tractors, cranes and other like equipment is no longer regulated under SPCC regulations.

5.3 OTHER EQUIPMENT OR CONTAINERS THAT MAY HOLD OIL

The definition of bulk storage container in §112.2 specifically excludes oil-filled electrical, operating, and manufacturing equipment ("oil-filled equipment"). Therefore, oil-filled equipment is not subject to the bulk storage container requirements. However, oil-filled equipment must meet the general requirements of the SPCC Rule. Oil-filled operational equipment (e.g., electrical transformers, capacitors, switches) poses unique challenges, and permanent (passive) containment structures, such as dikes, may not always be feasible. This type of oil-filled operational equipment is only subject to the general secondary containment provision, and not specific sized secondary containment.

It is good engineering practice to have some form of visual inspection or monitoring for this oil-filled equipment to prevent discharges as described in §112.1(b). Operators perform informal inspections prior to and during work shifts, no records are made of these informal inspections.

5.3.1 Oil-Filled Electrical Equipment

Numerous transformers that may contain oil are located throughout the facility (Table 3). The quantity of oil contained in the transformers varies from 45 to 2,500 gallons. Minimal containment is provided for these transformers. Most of these transformers are located in areas not served by storm drains. If a spill occurred, procedures outlined in the contingency plan (see Part 1) would be followed.

5.3.2 Oil-Filled Operational Equipment

Oil-filled operational equipment is located in several areas of the plant, including the Rod/Bar Mill, Steelmaking, and the Rail Mill (Table 4). In some cases, there is containment associated with this equipment. All of the equipment is located inside of buildings, and informal, unrecorded inspections are completed daily during operations. In the event of a release, the material would like be contained within the respective building. Any impacts outside the building would be treated by the facility treatment plant, and off-plant waters would not be impacted.

5.3.3 Out of Service Storage Containers

Specifically, the SPCC rule exempts from applicability and from capacity threshold determinations any oil storage container that is ``permanently closed.'' For a container to be permanently closed, all liquid and sludge must be removed from the container and connecting lines, all connecting lines and piping must be disconnected from the container and blanked off, all valves, except ventilation valves, must be closed and locked, and conspicuous signs must be posted on each container stating that it is a permanently closed container and noting the date of closure. Once permanently closed, a container is no longer required to be counted toward the total facility storage capacity, nor is it subject to the other requirements under the SPCC rule. The definition does not require that a permanently closed container be removed from the facility. In addition, any new container brought on to a facility that has never stored oil is not subject to the SPCC rule, nor is it counted toward the facility capacity until it stores oil.

There are numerous ASTs or other storage containers located at the Site that are no longer in use. The facility has no plans to use any of these tanks or containers in the future. Additionally, there are approximately nine rail cars at the facility which were historically used to store products. These cars are no longer necessary or in service.

5.4 FACILITY TRANSFER OPERATIONS, PUMPING, AND IN-PLANT PROCESS

Piping systems at the facility are designed and operated in such a manner to minimize potential oil spills. Buried piping at the Service Station area is double-wall. If a section of buried piping is exposed, it is inspected for deterioration. If corrosion damage is found,

additional examination and corrective action will be taken. In addition, dispenser hoses are inspected for deterioration during fueling operations and monthly inspections.

Piping that is not in service, or in standby service for an extended time, is capped, valved, or otherwise restrained to prevent oil spills.

Pipe supports are designed according to good engineering practices to minimize abrasion and corrosion, and to allow for expansion and contraction. Aboveground piping is supported by pedestals, hangers, or secured to a suitable structure.

Aboveground valves and pipelines are regularly examined by operating personnel. During the examination, the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, locking of valves, and metal surfaces are assessed.

Pipeline areas are not in locations subject to vehicle traffic.

5.5 FACILITY TANK TRUCK LOADING/OFFLOADING PROCEDURES

Tanks at this facility are filled by tank truck and from drums and totes. Used oil at the facility, including skimmed oil collected from scale pits and the lagoons, is removed weekly by a certified oil recycling company. A "Used Oil Collection Policy" has been implemented at the facility to service the various used oil collection points on a timely basis.

Tank truck loading/offloading fueling procedures meet the minimum requirements and regulations of the Department of Transportation. The driver or operator stays at the truck at all times during loading/offloading procedures. In addition, the driver will inspect the truck prior to departure to ensure that all valves are properly closed.

Specific sized secondary containment systems are not provided, nor are they required under SPCC regulations, for outside loading/offloading areas. General secondary containment requirements do, however, apply for all loading/offloading areas. This is provided by diversionary structures which direct spills and/or stormwater runoff from the facility to the onsite wastewater treatment system. The onsite wastewater treatment system has sufficient oil skimming capacity for the largest possible spill.

Signs are posted in the offloading area to remind drivers to disconnect transfer hoses before vehicle departure. Drains and outlets on tank trucks are checked for leakage before loading/offloading or departure.

5.6 OIL PRODUCTION FACILITIES

This facility is not an oil production facility.

5.7 OIL DRILLING AND WORKOVER FACILITIES

This facility is not an oil drilling or workover facility.

5.8 OIL DRILLING, PRODUCTION, OR WORKOVER FACILITIES

This facility is not an oil production and/or drilling facility.

5.9 INSPECTIONS AND RECORDS

Inspections required for this SPCC Plan are conducted in accordance with written procedures developed for this facility. The following routine inspections are conducted:

- Bulk storage container inspections – Bulk storage containers and associated transfer pipes and valves will be inspected monthly for evidence of damage, leakage, or wear (see Section 5.2.6). These inspections will be recorded on the SPCC Inspection form.

- Plant Water Treatment System - A daily inspection is made of north and south mills to determine if oil spillage has occurred during the previous 24 hours.

- Oil-containing equipment - Oil-containing equipment, such as conveyors, transformers, transfer devices, and rolling mill equipment, are checked on an on-going basis as part of routine operations. Problems identified during these routine checks will be addressed immediately. If signs are observed that the equipment may be failing (e.g., obvious corrosion, oil stains on the exterior of the equipment, bulges or dents), then a more thorough inspection may be warranted.

- Spill control systems - Spill control systems will be inspected (although not routinely documented) more frequently as necessary after precipitation events in which accumulated stormwater may have resulted. Secondary containment areas will be checked for oil prior to discharging accumulated precipitation. Containment equipment, sumps, skimmers, valves, etc., will be cleaned, maintained, and checked for proper operation on a routine, as-needed basis.

- Spill response equipment - Spill response equipment will be inspected monthly by a qualified personnel to ensure that the proper spill response equipment is available and usable.

In addition, the following specific records are kept:

- Registration and integrity testing records must be kept by the Site Manager for the life of the tank.

The following records must be maintained for at least five years:

- Installation or upgrade permits;

- Records of status changes;
- Repairs;
- Plan review records (Appendix B); and
- Spill event or free product removal records (Appendix C);

The following records must be maintained by the Site Manager for a period of three years:

- Annual inspection records (Appendix D);
- Monthly inspection records (Appendix E);

The following records must be maintained by the Site Manager for a period of one year:

- The most recent piping precision test results, if applicable (note that this is not applicable for this facility since there is no underground piping);
- Product inventory records. These must be kept daily for motor fuel dispensing ASTs, for ASTs which rest on earthen materials and for all ASTs connected to pressurized underground piping which does not meet applicable release detection requirements. Daily product inventory records are not applicable to this facility;
- Ullage documentation must be kept unless spill and overfill protection equipment that will automatically stop the delivery of liquid to the tank or sound an audible alarm that can be heard by the delivery operator exists. The AST is equipped with an 80 percent full, high level alarm. Therefore, the State does not require ullage documentation. For your information, ullage forms are located in Appendix F;
- Training records (Appendix G); and
- Annual electronic/manual tank gauge calibration records (Appendix H).

These inspection records will be kept in the SPCC file for the facility located at the environmental offices.

5.10 SECURITY

The facility is equipped with the security measures presented below.

- ERMS provides 24-hour security for the facility.
- The facility is surrounded by a chain link fence.
- A guard station is located at the major entrance to the facility.

- When not in use, valves on the lines that permit direct outward flow from a storage tank are securely locked in a closed position when in non-operating or non-standby service.

- Starter controls on oil pumps are locked in the off position when they are in the non-operating status.

- Loading/offloading connections of oil pipelines are securely capped or blank-flanged when not in service or standby service for an extended time.

- Lighting levels at the facility are adequate to allow for observations of discharges, releases, or acts of vandalism during hours of darkness.

5.11 PERSONNEL, TRAINING, AND SPILL PREVENTION PROCEDURES

Mr. Craig West, Environmental Manager, has been designated as the person accountable for oil spill prevention and responsible for administering all aspects of the oil spill prevention program. This position is referred to as the SPCC Coordinator.

The SPCC Coordinator is responsible for:

- Implementing the SPCC recommendations

- Personnel training in spill prevention and technology annually

- Initiating oil spill reporting requirements to comply with state and federal regulations

- Compilation of SPCC Plan records and documentation.

Facility personnel are properly instructed in the operation and maintenance of equipment to prevent oil discharges and applicable pollution control laws, rules, and regulations. The personnel operating the facility are instructed regarding their job responsibilities and duties.

Periodic safety meetings are held to discuss safety procedures and other pertinent job responsibility criteria. In addition, SPCC training is conducted as required, at least once a year. This training covers known spill events or failures, malfunctioning components, and recently developed precautionary measures. Annual SPCC training is documented, and documentation of such training is retained for 3 years.

APPENDIX A

SPCC PLAN REVIEW

SPCC PLAN REVIEW FORM

This SPCC Plan must be reviewed every year and updated at a minimum of every five years. The Plan should be amended at any time should one of the following occur:

Review Questions	September 2013	September 2014	September 2015	September 2016	September 2017(Update of Plan Required)
Reviewer:					
Is there is a change in facility design, construction, operation or maintenance that materially affects the facility's potential for a discharge of oil (fuel) into or upon the navigable waters of the United States?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
Is there a more effective control or prevention technology available which will significantly reduce the chances of a spill event?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
Has the EPA or the State reviewed the Plan that resulted in required changes?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
Changes in physical plant conditions that may be inconsistent with the current Plan? *(Track changes on a separate sheet – must be maintained with records.)*	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
Changes in maximum storage inventory or other physical plant changes? *(Track changes on a separate sheet – must be maintained with records.)*	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO

If an answer is YES to any of the above questions, the Plan must be updated or amended, and reviewed and certified by a Professional Engineer, even if it has not been five years since the last update. The changes should be implemented as soon as possible, but no later than six months after a facility change or the SPCC Plan review.

In addition to review and certification, are records of the following activities being maintained?

Records Maintained?	September 2013	September 2014	September 2015	September 2016	September 2017
Reviewer:					
Monthly inspections and corrective actions?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
All spill and release events?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
SPCC Plan training records?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO
Plan Review records (this form)?	YES	YES	YES	YES	YES
	NO	NO	NO	NO	NO

If an answer is YES to any of the above questions, then plans to initiate the appropriate record keeping *must* be made. The Plan is invalid until it is in compliance.

APPENDIX B

SPCC INSPECTION

Monthly Inspection Criteria:

Aboveground Oil Storage Tanks and Oil-Containing Equipment:

- Overall tank condition including:
  - Condition of paint
  - Tank corrosion
  - Bulges or dents
  - Condition of supports and foundations
  - Labeled properly and legible
  - Other tank damage
- Condition of secondary containment
  - Presence of accumulated precipitation, trash or other debris in the secondary containment
  - Determination if precipitation in secondary containment basin needs to be released

- Drain/by-pass valves are closed and secured
- Associated piping, pumps, valves, etc. are in good condition and not leaking
- Evidence of leaks including
  - Standing oil
  - Oil sheen on standing water
  - Oil stains on concrete, equipment, or soil
  - Distressed vegetation
  - Unexplained loss of inventory.
- Tank controls/monitors are in good working order
- Tank overfill/overflow systems are in good working order.
- Security Measures
  - Disconnect or emergency shut-off switches operational
  - Lighting
  - Locks

If the inspection indicates that actions need to be taken for proper spill prevention, note details on the inspection form.

Rocky Mountain Steel Mills

SPCC Monthly Inspection

Inspected By: _____ Signature: _____ Date: _____

LOCATION	Tank #	Check if Condition of Elements OK					COMMENTS
		System Integrity	Contain-ment	Discharge Contain-ment	Controls/ Overfill System	Drain/ By-Pass Secure	
Rod/Bar Mill (RBM)							
Rougher Scale Pit (South)							
Tank 1 *South*	RBM-SPS-1						
Tank 2 *North*	RBM-SPS-2						
Rougher Scale Pit (North)							
Tank 1 *West*	RBM-SPN-1						
Tank 2 *East*	RBM-SPN-2						
Finishing Scale Pit (Middle)							
Tank 1 *West*	RBM-SPM-1						
Tank 2 *East*	RBM-SPM-2						
"A" Oil Cellar (4 tanks)	RBM-OCA-1 - 4						
"B" Oil Cellar (7 tanks)	RBM-OCB-1- 7						
#1 Oil Cellar (5 tanks)	RBM-OC1-1 - 5						
#2 Oil Cellar (7 tanks)	RBM-OC2-1 - 7						
Oil Storage Area (drums and totes)	RBM-OSA-1						
Seamless Mill (STM)							
Portable scale pit tanks (3 tanks)	STM-PSP-1 - 3						
Hydrostatic Testing Area Tank 1	STM-HTA-1						
Stor. Area (central w. bay) (drums/totes)	STM-OSA-1						
Oil House North of Mill (drums/totes)	STM-OHN-1						
Oil Cellar No. 1	STM-OC1-1						
Oil Cellar No. 2	STM-OC2-1						
Service Station Area (SSA)							
Tank 1 Diesel	SSA-SSA-1						
Tank 2 Gasoline	SSA-SSA-2						
St. Charles Reservoir (SCR)							
Tank 1 Diesel	SCR-SCR-1						
Tank 2 Gasoline	SCR-SCR-2						
Tank 3 Kerosene	SCR-SCR-3						
South Mills Treatment System (SMT)							
Clarifier	SML-CLR-1						
Lagoon Skimmer Tank 1	SML-LST-1						
Lagoon Skimmer Tank 2	SML-LST-2						
Lagoon Skimmer Tank 3	SML-LST-3						
Lagoon Skimmer Tank 4	SML-LST-4						

LOCATION	Tank #	Check if Condition of Elements OK					COMMENTS
		System Integrity	Contain-ment	Discharge Contain-ment	Controls/ Overfill System	Drain/ By-Pass Secure	
Garage Area (GAR)							
Inside Garage (drums/totes)	GAR-INS-1						
Tank 1 Diesel	GAR-GAR-1						
Tank 2 Used Oil	GAR-GAR-2						
Storage House Area (SHA)							
Bulter Oil House (drums/totes)	SHA-BOH-1						
Unloading Area (Pad) (drums/totes)	SHA-UNP-1						
Steelmaking (STL)							
South Outside Area							
Tank 1 Diesel	STL-OUT-1						
Tank 2 Gasoline	STL-OUT-2						
Portable tank	STL-POR-1						
David Joseph Tank(s) (2 tanks)	STL-DJT-1 - 2						
STM BOF Oil Storage Bldg. (drums/totes)	STL-BOF-1						
STL Alpine Gasoline	STL-ALPINE						
STL PSC Diesel	STL-PSC						
Rail Mill (RLM)							
East Scale Pit							
Tank 1 *South*	RLM-SPE-1						
Tank 2 *North*	RLM-SPE-2						
West Scale Pit							
Tank 1 *South*	RLM-SPW-1						
Tank 2 *North*	RLM-SPW-2						
Oil Cellar B (shears) (3 tanks)	RLM-OCB-1 - 3						
Oil Cellar C (3 tanks)	RLM-OCC-1 - 3						
Oil Cellar D (Rougher) (1 tank)	RLM-OCD-1						
Oil Cellar E (Intermediate) (2 tanks)	RLM-OCE-1 - 2						
West Side Rougher	RLM-WSR-1						
Intermediate #1	RLM-INT						
South of Roll Shop Gasoline	RLM-RSS-1						
South of Roll Shop Diesel	RLM-RSS-2						
West Oil Storage Area (drums/totes)	RLM-OSW-1						
Davis Wire Mill (DWM)							
Boiler House (1 tanks)	DWM-BLR-1						
Maintenance (MAN)							
Machine Shop (1 tank)	MAN-MAS-1						
South of Boiler Shop Gasoline	BSP-S1						
South of Boiler Shop Diesel	BSP-S2						
North Mills Treatment System (NML)							
Tank	NML-NML-1						

APPENDIX C

LIQUID CONTAINER MANAGEMENT POLICY

I. APPROVAL

/s/ Ben Lutze	Ben Lutze, Vice President & General Manager
/s/ Craig West	Craig West, Environmental Manager

II. PURPOSE

To ensure the proper handling and storage of liquid containers throughout the facility.

III. POLICY

1. Responsibility
    a. The Environmental Department is responsible for establishment and ongoing evaluation of the liquid drum management policy and procedures. Environmental is also responsible for making annual hazardous awareness training available to each mill.
    b. Each supervisor has the responsibility for ensuring their work area is in compliance with the policies and procedures identified in this document. Additionally, it is the supervisor's responsibility for ensuring all employees have been properly training on the safe handling of hazardous waste and/or materials in their workplace.
    c. Employees who have not been trained on the site specific handling of hazardous waste and/or material shall not be permitted to work with this material.

2. Liquid Product Container Management
    a. All containers of liquid must be in good condition. Good condition implies no severe rusting, dents or creases, visual structural damage, or deterioration that will reduce the effectiveness of the container.
    b. All containers of liquid must have some form of secondary containment. Refer to Section 5 for details.
    c. When and where possible, bulk liquid containers or totes should be used to minimize and/or avoid the use of product drums.
    d. Drums containing liquids should be placed on spill pallets to contain any drips and leaks and to provide containment in the event of a spill.
    e. A container of liquid must always be closed during storage except to add or remove the contents.
    f. All containers of liquid must be stored in such a manner that if the container were to tip over, no material would spill out. Bungs must be tight on closed-head drums. Liquids must not be stored in open-head drums.
    g. Liquid drums must not be stacked more than two high. Drums containing flammable liquids should not be stacked at all.
    h. Containers should be stored in an area that is well away from, or protected from

sources of heat or damage due to the movement of vehicles.

i. Containers must be protected from freezing during cold weather. Containers stored outside must be protected from direct sunlight and precipitation by means of a roof, or in a dedicated portable containment structure.

j. Containers stored indoors should be well ventilated.

3. Liquid Waste Containers
   a. Containers holding liquid waste should only be filled to 90% capacity to allow head space for expansion of liquids (e.g., a 55-gallon drum should have a minimum of 4 to 6 inches head space).
   b. Only one waste stream can be added to a container. Mixing of wastes is strictly prohibited. For example, used oil, waste paints, etc., will each be accumulated in separate containers.
   c. Liquid waste must not be placed in an unwashed container that previously held an incompatible waste or material. Mixing incompatible materials may cause fire, explosion, injury and/or environmental impact.
   d. A funnel should be used to fill closed-head containers. If using a funnel without a locking top, the funnel should be removed and the container closed after filling. If the funnel has any waste residues remaining, the residues should be rinsed into the container or the funnel should be placed in a suitable, closed waste accumulation container.
   e. If a container begins to leak or is not in good shape, the waste must be transferred to a new container immediately or overpacked. Overpack containers shall provide sufficient cushion and absorption material to prevent excessive movement of the damaged container and to absorb all free liquid.

4. Labeling
   a. **All containers** must be clearly labeled with the contents, a department contact name and contact phone number. Drum labels are available from Environmental and an example is provided as Attachment 1.
   b. All containers of hazardous waste must be labeled with the contents of the container prior to adding waste to the container. The words “HAZARDOUS WASTE” or other words that identify the contents of the container must be marked on the container if waste is being accumulated.
   c. If the container contains nonhazardous waste, it must be labeled as containing “NONHAZARDOUS WASTE.”
   d. Used oil and used grease containers must be labeled as either “Used Oil” or “Used Grease.”
   e. Containers bearing ignitable liquids must be grounded when waste is being either added or removed. “NO SMOKING” signs must be placed conspicuously wherever there is a hazard from ignitable or reactive waste.
   f. Flammable liquids should be stored in a manner similar to the source hazardous material (e.g., in an approved flammable storage area, in flammable lockers and grounded and bonded, etc.).

5. Secondary Containment
   a. **All liquid product containers**, whether it contains a material or waste, must have

secondary containment. Secondary containment can be in the form of a spill pallet, containment structure or berm. The **only** exceptions to this requirement are containers containing non-flowable grease or solids.

b. Secondary containment must be adequately sized to contain 110% of the volume of liquid material stored within the containment area.
c. Containers of liquid stored outside must be in a covered, bermed area or designated portable containment structure.
d. Secondary containment shall be provided during any liquid product dispensing and transfer. It is recommended all drum product dispensing be conducted from drum racks where secondary containment is available.
e. Examples of adequate secondary containment devices are provided in Attachment B.

IV. APPLICABILITY

This policy is applicable to EVRAZ Pueblo, all mills, employees and contractors. Violations of this policy will result in discipline up to and including termination of employment.

V. AUTHOR

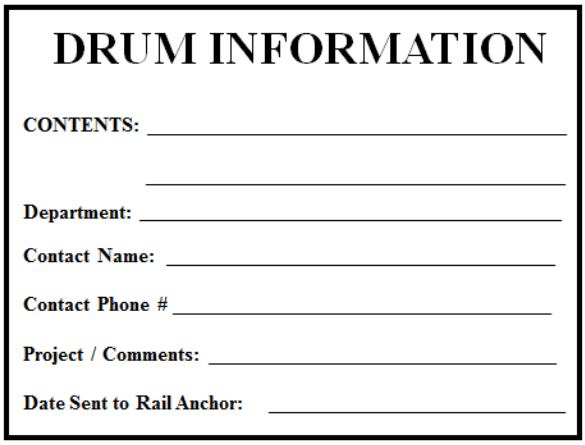
EVRAZ Pueblo, Environmental Department

VI. DISTRIBUTION

All employees

ATTACHMENT A
DRUM INFORMATION LABEL EXAMPLES

EVRAZ Pueblo Drum Label Acceptable for Use in Satellite Accumulation Points Only


DRUM INFORMATION

CONTENTS: _____

_____

Department: _____

Contact Name: _____

Contact Phone # _____

Project / Comments: _____

Date Sent to Rail Anchor: _____

Department of Transportation Approved Labels

ATTACHMENT B
EXAMPLES OF ACCEPTABLE SECONDARY CONTAINMENT

Drum Dispensing Spill Containment

4-Drum Spill Containment

Tote Spill Containment

2-Drum Spill Containment

APPENDIX D

EMPTY DRUM POLICY

I. APPROVAL

/s/ Ben Lutze	Ben Lutze, Vice President & General Manager
/s/ Craig West	Craig West, Environmental Manager

II. PURPOSE

To designate a person at each facility who is responsible for the safe handling and storage of empty drums and/or bulk containers and to identify an Accumulation Point (AP) within each facility dedicated to storing empty drums/bulk containers in support of the 6S program.

III. POLICY

1. Responsibility
    a. Each Mill Manager has the responsibility for ensuring their work area is in compliance with the policies and procedures identified in this document.
    b. The Mill Manager is also responsible for designating an Empty Drum Accumulation Point (AP) Manager.
    c. The AP Manager will be responsible for the following:
        - Ensuring compliance with these policy requirements.
        - Ensuring each container is labeled “EMPTY,” and with a department contact name and phone number.
        - Performing weekly inspections at the empty drum AP to ensure compliance with this policy. An inspection checklist is provided as Attachment A.
        - Providing a copy of the weekly inspection checklist to Environmental within 24 hours of completion. The completed checklist should be forwarded in an electronic manner.
        - Coordinating transport and disposal of empty drums with the Environmental Department.
        - Coordinating the location of empty drum Accumulation Points with the Environmental Department.
    d. The Environmental Department is responsible for establishment and ongoing evaluation of the empty drum management policy and procedures.

2. Empty Drum Accumulation Points (AP)
    a. All major operating and maintenance areas shall identify an empty drum AP or collection area within their department. This area should be the **only place** where empty drums are stored until these drums can be removed from the department.
    b. The collection area must be located inside a facility and in a well-ventilated area.
    c. The AP must be clearly marked “EMPTY DRUM ACCUMULATION POINT” and indicate the contact name and phone number of the designated AP Manager.

d. **NO** drum containing material or waste is permitted to be stored in this area.

3. Empty Drum Management
   a. Empty drums are to be taken to the designated empty drum collection area within 24 hours of becoming empty or as soon as a new product drum is received and is in use.
   b. Empty containers must be labeled with the prior contents of the container and the words “EMPTY,” a department contact name and contact phone number.
   c. Empty drums must not be stacked more than two high and should be placed on pallets to allow for ease of removal.
   d. Empty drums must not remain in the AP for longer than 30 days.

4. Empty Drum Turn-in Procedures
   a. The AP Manager shall notify the 90 day facility (ext 6557) when empty drums need to be removed from the collection area. The AP Manager shall give as much advance notice of empty drum turn-in as possible to ensure timely coordination.
   b. Prior to turning in empty drums, the AP Manager shall inspect each container to ensure proper labeling and no accumulation of liquid exists either inside or on top of the drum.
   c. The AP Manager is responsible for transporting their empty containers to the 90-day facility. It’s important to ensure drums are transported in a manner that will not endanger the health and safety of personnel or the environment.

IV. APPLICABILITY

This policy is applicable to EVRAZ Pueblo, all mills, employees and contractors generating empty 55-gallon drums and/or totes. Violations of this policy will result in discipline up to and including termination of employment.

V. AUTHOR

EVRAZ Pueblo, Environmental Department

VI. DISTRIBUTION

All employees

ATTACHMENT A
EMPTY DRUM ACCUMULATION POINT
WEEKLY INSPECTION CHECKLIST

Empty Drum Accumulation Point Location:_____

Inspected By:_____ Signature:_____

Date:_____ No. of Containers:_____

Date of Last Empty Drum Transport to the 90-day facility:_____.

EMPTY DRUM ACCUMULATION POINT (AP)	YES	NO
Is the AP clearly marked "EMPTY DRUM ACCUMULATION POINT"?		
Is the AP Manager's Name and Phone Number posted in the AP?		
Is each container labeled "EMPTY"?		
Is each container clearly labeled indicating the prior contents?		
Are the containers clean and free of waste residue?		
Are there containers of product staged in the Empty Drum AP area?		
Have empty containers been in the AP longer than 30 days?		
Is the AP kept neat and free from trash & debris?		
Are there empty containers in the operational area which have not been relocated to the AP?		

Comments:

Describe actions taken to correct situation:

TABLES

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
Rod/Bar Mill									
Rougher Scale Pit (South)									
RBM-SPS-1	Tank 1	400	Used oil	Steel	None	Concrete berm	400		Into scale pit, which drains to WWTS
RBM-SPS-2	Tank 2	400	Used oil	Steel	None	Concrete berm	400		Into scale pit, which drains to WWTS
Rougher Scale Pit (North)									
RBM-SPN-1	Tank 1	400	Used oil	Steel	None	Concrete berm	510		Into scale pit, which drains to WWTS
RBM-SPN-2	Tank 2	400	Used oil	Steel	None	Concrete berm	510		Into scale pit, which drains to WWTS
Finishing Scale Pit (Middle)									
RBM-SPM-1	Tank 1	400	Used oil	Steel	None	Concrete berm	450		Into scale pit, which drains to WWTS
RBM-SPM-2	Tank 2	400	Used oil	Steel	None	Concrete berm	450		Into scale pit, which drains to WWTS
Oil Cellars									
RBM-OCA-1	"A" Oil Cellar	2,300	Hydraulic oil	Steel	Gauge			Concrete cellar	Into cellar and out to sump located in adjacent room, and into sloped area
RBM-OCA-2		1,700	Lube oil	Steel	Gauge			Concrete cellar	Into cellar and out to sump located in adjacent room, and into sloped area
RBM-OCA-3		110	Lube oil	Steel	Gauge			Concrete cellar	Into cellar and out to sump located in adjacent room, and into sloped area
RBM-OCA-4		600	Hydraulic oil	Steel	Gauge			Concrete cellar	Into cellar and out to sump located in adjacent room, and into sloped area
RBM-OCB-1	"B" Oil Cellar	18,000	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-2		110	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-3		300	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-4		670	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-5		80	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-6		30	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OCB-7		750	Air/oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
RBM-OC1-1	#1 Oil Cellar	4,900	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OC1-2		4,900	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OC1-3		2,400	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OC1-4		2,400	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OC1-5		400	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to south scale pit
RBM-OC2-1	#2 Oil Cellar	1,500	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-2		1,500	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-3		1,500	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-4		400	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-5		400	Hydraulic oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-6		200	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OC2-7		200	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to middle scale pit
RBM-OSA-1	Oil Storage Area	<600 gals total in 55-gal drums and totes	various new oils	Steel/plastic	NA(a)			Rod/Bar Mill	Drains within cellar discharge to middle scale pit
Seamless Mill									
STM-PSP-1	Portable scale pit tanks	500	Used oil	Steel	None			Seamless Mill	Onto the floor of the building
STM-PSP-2		500	Used oil	Steel	None			Seamless Mill	Onto the floor of the building
STM-PSP-3		500	Used Oil	Steel	None			Seamless Mill	Onto the floor of the building
STM-HTA-1	Hydrostatic Testing Area Tank 1	500	Used oil	Steel	None			Seamless Mill	Onto the floor of the building
STM-OSA-1	Oil Storage Area (central west bay)	<600 gals total in 55-gal drums and totes	various new oils	Steel/plastic	NA			Seamless Mill	Onto the floor of the building

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
STM-OHN-1	Oil House North of Mill	<600 gals total in 55-gal drums and totes	Various new oils and used oil	Steel/plastic	NA			Seamless Mill	Onto the floor of the building
STM-OC1-1	Oil Cellar No. 1	5,000	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to scale pit
STM-OC2-1	Oil Cellar No. 2	5,000	Lube oil	Steel	Gauge			Concrete cellar	Drains within cellar discharge to scale pit
Service Station Area									
SSA-SSA-1	Tank 1	10,000	Diesel	Steel	Gauge, alarm	Concrete berm	8,600		Into containment area equipped with drainage valve
SSA-SSA-2	Tank 2	6,000	Gasoline	Steel	Gauge, alarm	Concrete berm	5,700		Into containment area equipped with drainage valve
St. Charles Reservoir									
SCR-SCR-1	Tank 1	1,000	Diesel	Steel	Gauge	Concrete berm	3,200		Into containment area equipped with drainage valve
SCR-SCR-2	Tank 2	1,000	Gasoline	Steel	None	Concrete berm	3,200		Into containment area equipped with drainage valve
SCR-SCR-3	Tank 3	500	Kerosene	Steel	Gauge	Concrete berm	3,200		Into containment area equipped with drainage valve
South Mills Treatment System									
SML-CLR-1	Clarifier	1,000	Used oil	Steel	None			Concrete vault	Into concrete vault, no drainage valve
SML-LST-1	Lagoon Skimmer Tank 1	540	Used oil	Steel	None			Pond	Into skimming pond
SML-LST-2	Lagoon Skimmer Tank 2	540	Used oil	Steel	None			Pond	Into skimming pond
SML-LST-3	Lagoon Skimmer Tank 3	540	Used oil	Steel	None			Pond	Into skimming pond
SML-LST-4	Lagoon Skimmer Tank 4	540	Used oil	Steel	None			Pond	Into skimming pond
Garage Area									
GAR-INS-1	Inside Garage	<600 gals total in 55-gal drums and totes	Various new oils	Steel/plastic	None	None			Onto ground
GAR-GAR-1	Tank 1	100	Diesel	Steel	None	Stock tank	1,175		Into containment area, no drainage valve
GAR-GAR-2	Tank 2	300	Used oil	Plastic	None	Containment unit	400		Into containment unit or onto ground if tote is punctured at the top

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
Grader Blade Plant									
MAN-ENG-1	Grader Blade Plant Exterior	1000	Diesel	Steel	None				Onto ground
West of 6 House									
	Vac Truck 1	300	Used Oil	Plastic	None	None (b)			Onto ground
	Vac Truck 2	300	Used Oil	Plastic	None	None (b)			Onto ground
	Vac Truck 3	300	Used Oil	Plastic	None	None (b)			Onto ground
	Vac Truck 4	300	Used Oil	Plastic	None	None (b)			Onto ground
	Vac Truck 5	500	Used Oil	Steel	None	None (b)			Onto ground
	Vac Truck 6	500	Used Oil	Steel	None	None (b)			Onto ground
Storage House Area									
SHA-BOH-1	Bulter Oil House	<600 gals total in 55-gal drums and totes	Various new oils	Steel/plastic	NA			Oil House	Onto floor of Oil House
SHA-UNP-1	Unloading Area (Pad)	~900 gals total in 55-gal drums and totes	Various new and used oils	Steel/plastic	NA	None (b)	NA		Onto concrete pad
Steelmaking									
South Outside Area									
STL-OUT-1	Tank 1	500	Diesel	Steel	Gauge	Concrete berm	1,100		Into containment area, no drainage valve
STL-OUT-2	Tank 2	300	Gasoline	Steel	Gauge	Concrete berm	1,100		Into containment area, no drainage valve
STL-POR-1	Portable tank	300	Diesel	Steel	None	None (b)	NA		Onto ground
STL-DJT-1	David Joseph Tank (c)	500	Used oil	Steel	None	Concrete berm	1,400		Into containment area, no drainage valve
STL-DJT-2		500	Used oil	Steel	None	Concrete berm	1,400		Into containment area, no drainage valve
STL-BOF-1		<1,500 gals total in 55-gal drums and totes	Various new and used oils	Steel/plastic	NA	None (b)	NA		Onto floor of building and out to surrounding ground
STL-ALPINE	Portable Tank	500	Gasoline	Steel	None	Stock tank	700		
STL-PSC	Portable Tank	500	Diesel	Steel	None	Stock tank	700		

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
Rail Mill									
East Scale Pit									
RLM-SPE-1	Tank 1	400	Used oil	Steel	None	Concrete berm	480		Into scale pit, which drains to WWTS
RLM-SPE-2	Tank 2	400	Used oil	Steel	None	Concrete berm	480		Into scale pit, which drains to WWTS
West Scale Pit									
RLM-SPW-1	Tank 1	400	Used oil	Steel	None	Concrete berm	560		Into scale pit, which drains to WWTS
RLM-SPW-2	Tank 2	400	Used oil	Steel	None	Concrete berm	560		Into scale pit, which drains to WWTS
Oil Cellars									
RLM-OCB-1	Oil Cellar B (shears)	3,500	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCB-2		850	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCB-3		800	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCC-1	Oil Cellar C	3,500	Lube oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCC-2		800	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCC-3		500	Grease	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCD-1	Oil Cellar D (Rougher)	800	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCE-1	Oil Cellar E (Intermediate)	500	Grease	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-OCE-2		2,300	Hydraulic oil	Steel	Gauge			Concrete cellar	Sump within cellar discharges to scale pit
RLM-WSR-1	West Side Rougher	1,000	Lube oil	Steel	Gauge				Onto floor of building
RLM-INT-1	Intermediate #1-1	1,000	Lube oil	Steel	Gauge			Rail Mill	Onto floor of building
RLM-INT-2	Intermediate #1-2	800	Lube oil	Steel	Gauge			Rail Mill	Onto floor of building
RLM-RSS-1	South of Roll Shop	500	Gasoline	Steel	Gauge	Stock tank	550		Into tank, no drainage valve
RLM-RSS-2	South of Roll Shop	500	Diesel	Steel	Gauge	Stock tank	550		Into tank, no drainage valve
RLM-OSW-1	West Oil Storage Area	55 – 600 (drums and totes)	Various new oils	Steel/plastic	NA	None (b)	NA		Onto ground; some in building

Table 1
Summary of Petroleum Bulk Storage Containers

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
Davis Wire Mill									
DWM-BLR-1	Boiler House (Emergency Fire Pump)	500	Diesel	Steel	NA	Steel	>500		Containment; within building
Maintenance									
MAN-MAS-1	Machine Shop	180	Used lube oil	Steel	None			Machine Shop	Onto floor of shop
North Mills Treatment System									
NML-NML-1	Tank	400	Used oil	Steel	None			Pond	Into pond

Notes:

(a) NA = Not applicable.

(b) Although containment has not been provided for these tanks/areas, all drainage at the facility flows to the onsite wastewater treatment system.

(c) Tank belongs to David Joseph (a tenant at RMSM) but is inspected by ERMS.

TABLE 2
MOBILE EQUIPMENT WITH CAPACITY >55 GALLONS

Unit #	Unit Name	Capacity (gals.)	
		Fuel	Hydraulic Oil
0430	Ross Straddle Carrier - Tube Mill Shipping	60	60
0433	Ross Straddle Carrier - Tube Mill Shipping	60	60
0434	Ross Straddle Carrier - Tube Mill Shipping	60	60
0435	Ross Straddle Carrier - Tube Mill Shipping	60	60
0436	Ross Straddle Carrier - Tube Mill Shipping	60	60
0437	CTEC - Steelmaking Material Handling	60	60
0438	CTEC - Steelmaking Material Handling	60	60
0439	CTEC - Steelmaking Material Handling	70	60
0440	CTEC - Steelmaking Material Handling	60	60
0441	CTEC - Steelmaking Material Handling	60	60
0442	CTEC - Steelmaking Material Handling	60	60
0648	Rod/Bar Shipping - Rod Master	65	67
2680	Lima Crane - Central Maint.	94	60
2697	Grove Crane - Steelmaking	60	80
4326	Diamond Rio Tractor - Central Maint.	95	--
7676	P & H Crane - Steelmaking	60	88
7677	Grove Crane - Central Maint.	60	88
8567	Dinky - Rod/Bar Mill	200	--
	Dinky - Rail Mill	200	--
various	C&W mobile equipment	various	various

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
524	53632	10" MILL STORAGE - 11" BAR MILL SPARE RECTIFIER TRANSF.	1671			
291	H409963	10" MILL STORAGE - EAF SPARE TRANSF	6400	1A / FD-293		
404	5065616	10" MILL STORAGE - LADLE REFINING FURNACE SPARE TRANSF.	3720			
89	5581945	10" MILL STORAGE (NON PCB)	150			SPARE
90	5581946	10" MILL STORAGE (NON PCB)	150			SPARE
91	5581947	10" MILL STORAGE (NON PCB)	150			SPARE
105	7517422	10" MILL STORAGE (NON PCB)	59			SPARE
42	3096498	10" MILL STORAGE (NON PCB)	88			SPARE
44	3096501	10" MILL STORAGE (NON PCB)	88			SPARE
14	1116497	10" MILL STORAGE (NON PCB)	60			SPARE
15	1116498	10" MILL STORAGE (NON PCB)	60			SPARE
28	2371535	10" MILL STORAGE (NON PCB)	57			SPARE
29	2371536	10" MILL STORAGE (NON PCB)	57			SPARE
30	2371537	10" MILL STORAGE (NON PCB)	57			SPARE
3	160641	10" MILL STORAGE (NON PCB)	Unknown			SPARE
43	3096499	10" MILL STORAGE (NON PCB)	88			SPARE
88	5406261	10" MILL STORAGE (NON PCB)	Unknown			SPARE
92	5893108	10" MILL STORAGE (NON PCB)	Unknown			SPARE
64	3150235	10" MILL STORAGE (NON PCB)	Unknown			SPARE
45	3096506	10" MILL STORAGE (NON PCB)	265			SPARE
46	3096507	10" MILL STORAGE (NON PCB)	265			SPARE
47	3096508	10" MILL STORAGE (NON PCB)	265			SPARE
26	2170266	10" MILL STORAGE (NON PCB)	59			SPARE
2	129230	10" MILL STORAGE (NON PCB)	Unknown			SPARE
16	1116500	10" MILL STORAGE (NON PCB)	100			SPARE
17	1116501	10" MILL STORAGE (NON PCB)	100			SPARE
18	1116502	10" MILL STORAGE (NON PCB)	100			SPARE
124	3171977	10" MILL STORAGE (NON PCB)	385			SPARE
126	3171978	10" MILL STORAGE (NON PCB)	385			SPARE
142	3768850	10" MILL STORAGE (NON PCB)	240			SPARE
141	3768851	10" MILL STORAGE (NON PCB)	240			SPARE
139	3768852	10" MILL STORAGE (NON PCB)	240			SPARE
437	3143666	10" MILL STORAGE (NON PCB)	Unknown			SPARE
490	3096545	10" MILL STORAGE (NON PCB)	55			SPARE
67	3194553	10" MILL STORAGE (NON PCB)	57			SPARE
68	3194554	10" MILL STORAGE (NON PCB)	57			SPARE
69	3194555	10" MILL STORAGE (NON PCB)	57			SPARE
13	1116496	10" MILL STORAGE (NON PCB)	60			SPARE
21	1669516	10" MILL STORAGE (NON PCB)	96			SPARE
22	1739882	10" MILL STORAGE (NON PCB)	96			SPARE
33	2672620	10" MILL STORAGE (NON PCB)	96			SPARE

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
94	6213904	10" MILL STORAGE (NON PCB)	170			SPARE
527	7383766	10" MILL STORAGE (NON PCB)	320			SPARE
339	G855725	10" MILL STORAGE (NON PCB)	215			SPARE
537	53080	11" BAR MILL - RECTIFIER TRANSFORMER	1671			
395	91726	11" BAR MILL - SBQ PROCESSING	211	32 / 28S6		
486	FTC911441	11" BAR MILL NORTHWEST SIDE (POST SHOP)	264		O-1815 / 49677	
145	940085A1	11" BAR MILL W. WALL OUTSIDE CONT. RM	510	32/28S6	54023	
140	940085C1	11" BAR MILL W. WALL OUTSIDE CONT. RM.	410	32/28S6	54023	
542	960388A1	11" BAR MILL W. WALL OUTSIDE CONT. RM.	405			
137	940085B1	11" BAR MILL W. WALL OUTSIDE CONT. RM. (INTERM. SILCO)	470	32/28S6	54023	
135	940085D1	11" BAR MILL W. WALL OUTSIDE CONT. RM. (ROUGHER SILCO)	950	32/28S6	54023	
138	940085A2	11" BAR MILL W. WALL OUTSIDE CONT. RM.(E. FINISHER)	510	32/28S6	54023	
503	3158059	20" MILL - TOP OF CONTROL ROOM	Unknown		51637	
504	67AK13698	20" MILL - TOP OF CONTROL ROOM	Unknown		51637	DISCONNECTED
505	67AK13702	20" MILL - TOP OF CONTROL ROOM	Unknown		51637	DISCONNECTED
550	67AK7977	20" MILL - TOP OF CONTROL ROOM	Unknown		51637	DISCONNECTED
563	130533	BLAST FURNACE "A" (EAST) - NORTH END PREMIER BUILDING	Unknown		136-K-26	
317	3100357	BLAST FURNACE "A" (EAST) - NORTH END PREMIER BUILDING	Unknown		136-K-26	
568	3096385	BOLT MILL SOUTH END ON 2 POLE PLATFORM	100		59154	
491	3163915	C & W MACHINE SHOP - NORTH SIDE	Unknown	14 / 8ME		
334	3846793	C & W MACHINE SHOP - NORTH SIDE	82	14 / 8ME	136-K-26B	RETROFILLED 11/2/92
335	3846794	C & W MACHINE SHOP - NORTH SIDE	82	14 / 8ME	136-K-26B	
333	3846795	C & W MACHINE SHOP - NORTH SIDE	82	14 / 8ME	136-K-26B	RETROFILLED 11/2/92
569	62889LC1	C & W MACHINE SHOP - NORTH SIDE	320	14 / 8ME		
572	C00213981	CASTING FOUNDRY AT TOWER #9	110		136-K-26B	
288	UBP51521	CASTING FOUNDRY INDUCTION FURNACE	2600	1A / FD-295	M-9106	
286	C64534357P	CASTING FOUNDRY SOUTH EAST CORNER CENTER	110	14 / 8ME	136-K-26B	
573		CASTING FOUNDRY SOUTH EAST CORNER NORTH	110			
287	C64534257P	CASTING FOUNDRY SOUTH EAST CORNER SOUTH	110	14 / 8ME	136-K-26B	
318	5584500	CENTRAL HEAT TREATING - NORTH ON POLE PLATFORM	Unknown	14 / 8ME	136-K-26B	
319	5584501	CENTRAL HEAT TREATING - NORTH ON POLE PLATFORM	Unknown	14 / 8ME	136-K-26B	
320	5970262	CENTRAL HEAT TREATING - NORTH ON POLE PLATFORM	Unknown	14 / 8ME	136-K-26B	
575	PBT85810104	COKE PLANT - COAL SILO	157		2421-6A1	
336	PBT85810104	COKE PLANT - COAL UNIT TRAIN	157			
218	7328074	COKE PLANT BOOSTER (BLDG. 831)	180	30 / 12S4	2421-6A1	DISCONNECTED
368	84505	COKE PLANT GAS BOOSTER SUB.	300	30 / 12S4	61253	DISCONNECTED
417	3096387	COKE PLANT SUB. A ON PLATFORM	100			
225	43661	COKE PLANT SUB. B ELECTRIC SHOP	241	30 / 12S4	2421-6A1	
226	43662	COKE PLANT SUB. B ELECTRIC SHOP	241	30 / 12S4	2421-6A1	
227	43663	COKE PLANT SUB. B ELECTRIC SHOP	241	30 / 12S4	2421-6A1	
224	2310469	COKE PLANT SUB. B ELECTRIC SHOP	208	30 / 12S4	2421-6A1	

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
222	2310470	COKE PLANT SUB. B ELECTRIC SHOP	208	30 / 12S4	2421-6A1	
223	2310471	COKE PLANT SUB. B ELECTRIC SHOP	208	30 / 12S4	2421-6A1	
283	3704392	EAST MILL BOILER - POWER	195	23 / 15E2	136-K-28	DISCONNECTED
284	3704393	EAST MILL BOILER - POWER	195	23 / 15E2	136-K-28	DISCONNECTED
282	3704394	EAST MILL BOILER - POWER	195	23 / 15E2	136-K-28	DISCONNECTED
281	3021166	EAST MILL BOILERS - RECTIFIER FOR 40" MILL	1946	23 / 15E2	136-K-26B	OUT OF SERVICE
289	C00901983	EAST SIDE PUMP STATION	110			
290	C00901984	EAST SIDE PUMP STATION	110			
396	L249991	EAST SIDE PUMP STATION	310	24 / 16E2	69453	
243	6990046	EAST SUB - POWER	2615	A1	65973-1	
244	6990047	EAST SUB - POWER	2615	A1	65973-1	
245	26322013851	EAST SUB - POWER (PUBLIC SERVICE)	9243	A1		OUT OF SERVICE - BAD ORDER
261	26322013851	EAST SUB - POWER TAP CHANGER (PUBLIC SERVICE)	500			
507	96943	EAST SUB. N.E. CORNER - ROKOP CASTER WTP VTD	194			RELOCATED FROM DESULFERIZER
216	2678423	GRADER BLADE	175	26 / 4S3	49677	
215	2678424	GRADER BLADE	175	26 / 4S3	49677	
214	2678425	GRADER BLADE	175	26 / 4S3	49677	
161	3343007	GRADER BLADE (PACKAGE BOILERS)	350	26/4S3	49677	RETROFILLED 10/31/90
295	C00916961	MACHINE SHOP SOUTHWEST CORNER	110	14 / 8ME	136-K-26B	
296	C00916962	MACHINE SHOP SOUTHWEST CORNER	110	14 / 8ME	136-K-26B	
297	C00916963	MACHINE SHOP SOUTHWEST CORNER	110	14 / 8ME	136-K-26B	
600	CF0813001	MAIN OFFICE	321		136-K-24	
602	CF0813002	MAIN OFFICE	300		136-K-24	
133	PBV254501	MAIN OFFICE	170	04/A-F	136-K-24	RETROFILLED 3/2/90
618	38495	MAIN OFFICE - PRINT SHOP	70		136-K-24	
619	718792	MAIN OFFICE - PRINT SHOP	Unknown		136-K-24	
378	RBS21111	MAIN SUB. - POWER TRANSF. "E"	2563		65973-1	
377	RBS21112	MAIN SUB. - POWER TRANSF. "D"	2563		65973-1	
627		MORGAN ROD MILL MOTOR ROOM S. SCR TRANSF.	Unknown		52506	
628		MORGAN ROD MILL MOTOR ROOM S. SCR TRANSF.	Unknown		52506	
629	4794506	MORGAN ROD MILL NORTH OF PREHEAT FURNACE	Unknown			
636		O.H. DIESEL SHOP, ON STEEL TOWER	Unknown		57302	
637		O.H. DIESEL SHOP, ON STEEL TOWER	Unknown		57302	
645		ORE PREP. WEST AT FENCE LINE ON POLE	Unknown		M-8329	
653		POWER DEPT. - WIRE MILL TOWER	Unknown		49677	
654	E58389260K	POWER DEPT. CELL #17	Unknown		59174	
655	1095609B	POWER DEPT. COOLING TOWER (SOUTH END)	14		136-K-26	
329	B336842	POWER DEPT. COOLING TOWER (SOUTH END)	170	09 / C-51	136-K-26	RETROFILLED 7/2/93
328	B336843	POWER DEPT. COOLING TOWER (SOUTH END)	170	09 / C-51	136-K-26	RETROFILLED 7/2/93
327	B336844	POWER DEPT. COOLING TOWER (SOUTH END)	170	09 / C-51	136-K-26	RETROFILLED 7/2/93

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
330	B533073	POWER DEPT. COOLING TOWER (SOUTH END)	285	09 / C-51	136-K-26	RETROFILLED 7/16/93
332	B533074	POWER DEPT. COOLING TOWER (SOUTH END)	285	09 / C-51	136-K-26	RETROFILLED 7/16/93
331	B533075	POWER DEPT. COOLING TOWER (SOUTH END)	285	09 / C-51	136-K-26	RETROFILLED 7/16/93
307	8640864	POWER HOUSE - #1 HIGH PRESSURE BOILER NORTH STATION	425	08 / B-49	65973-1	
306	GM207764	POWER HOUSE - COAL PULVERIZING BUILDING OUTSIDE	227	05 / A-G	54865	RETROFILLED 10/18/92
657		POWER HOUSE - GROUNDING TRANSF.	Unknown		59174	
310	3096502	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
311	3096503	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
309	3096504	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
312	3777400	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
313	3777401	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
314	3777402	POWER HOUSE EAST SIDE NO. GROUP	445	07 / C-56	33101	OUT OF SERVICE
322	3401562	POWER HOUSE NORTH OUTSIDE BOILER HOUSE #8 I.D. FAN	183	11 / C-55	33101	
325	B974843	POWER HOUSE NORTH OUTSIDE RILEY BOILER HOUSE	80	11 / C-55	33101	
326	B974844	POWER HOUSE NORTH OUTSIDE RILEY BOILER HOUSE	80	11 / C-55	33101	
324	B974845	POWER HOUSE NORTH OUTSIDE RILEY BOILER HOUSE	80	11 / C-55	33101	
323	3380762	POWER HOUSE NORTH OUTSIDE RILEY BOILER HOUSE	126	11 / C-55	33101	
321	3380763	POWER HOUSE NORTH OUTSIDE RILEY BOILER HOUSE	140	11 / C-55	33101	
390	H885855B	RAIL MILL - 36" MILL	555	16 / 11ME		
383	H885856	RAIL MILL - 45" MILL (BOTTOM MOTOR)	483	12 / 1MD		
384	H885855A	RAIL MILL - 45" MILL (TOP MOTOR)	483	12 / 1MD		
369	86022	RAIL MILL - COOLING BED SUB #1	205	10 / C-54		
673	PFB09381	RAIL MILL - COOLING BED SUB #2	234	10 / C-54		
680	PFB09380001	RAIL MILL - LSQ US-13	915			
301	6216167	RAIL MILL BILLET YARD	130	10 / C-54	136-K-25 / 13186	DISCONNECTED
299	6216586	RAIL MILL BILLET YARD	130	10 / C-54	136-K-25 / 13186	DISCONNECTED
300	6216589	RAIL MILL BILLET YARD	130	10 / C-54	136-K-25 / 13186	DISCONNECTED
394	917261	RAIL MILL DOCK EXTENSION - RAIL REWORK FACILITY	211	30 / 12S4		RELOCATED FROM COKE PLANT SOUTH QUENCH
389	SEV089801	RAIL MILL EAST SIDE - SUB 2021 (UPSTAIRS)	385	16 / 11ME		
388	90236	RAIL MILL EAST SIDE - SUB. 13	211	16 / 11ME		
298	PAV810801	RAIL MILL EAST SIDE OF PITS	174	15 / 4MD	66010	RETROFILLED 10/22/93
277	PBV746801	RAIL MILL REHEAT FCE, SUB. 12	194	14 / 8ME	136-K-26B	FORMERLY BALL MILL INDUCTION FURNACE NORTH END
699	PFQ39650201	RAIL MILL REHEAT FURNACE SUB 11	350			
385	L243121	RAIL MILL SPARE 36" & 45" STORAGE AT 10" MILL	483	12 / 1MD		
158	6213905	ROD MILL WEST SIDE CONTROL ROOM	170	33/27S6	52507	RETROFILLED 11/9/92
160	6213906	ROD MILL WEST SIDE CONTROL ROOM	170	33/27S6	52507	RETROFILLED 5/26/89
159	6417366	ROD MILL WEST SIDE CONTROL ROOM	170	33/27S6	52507	RETROFILLED 11/9/92
403	L252923A	SEAMLESS MILL #2 SUBSTATION	2410	1A	65973-2	

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
508	L252923B	SEAMLESS MILL #2 SUBSTATION	2410	1A	65973-2	
740	J752838K70A	SHIPPING WEST - POLE #25	Unknown		M-8329	
741	J752840K70A	SHIPPING WEST - POLE #25	Unknown			
742	J752841K70A	SHIPPING WEST - POLE #25	Unknown			
743	J769833K70A	SHIPPING WEST - POLE #30	Unknown			
744	J769834K70A	SHIPPING WEST - POLE #30	Unknown			
745	J769835K70A	SHIPPING WEST - POLE #30	Unknown			
457	J752833K70A	SHIPPING WEST, 2nd SET FROM SOUTHWEST	Unknown			
456	J752834K70A	SHIPPING WEST, 2nd SET FROM SOUTHWEST	Unknown			
455	J752835K70A	SHIPPING WEST, 2nd SET FROM SOUTHWEST	Unknown			
459	N381247YKTA	SHIPPING WEST, 3rd SET FROM SOUTHWEST	Unknown			
458	N381248YKTA	SHIPPING WEST, 3rd SET FROM SOUTHWEST	Unknown			
460	N381249YKTA	SHIPPING WEST, 3rd SET FROM SOUTHWEST LINE	Unknown			
454	J752836K70A	SHIPPING WEST, EXTREME SOUTHWEST LINE???	Unknown			
452	J752837K70A	SHIPPING WEST, EXTREME SOUTHWEST LINE???	Unknown			
453	J752839K70A	SHIPPING WEST, EXTREME SOUTHWEST LINE???	Unknown			
463	69BG069002	SHIPPING WEST, NORTH END, WEST LINE, #9 POLE???	Unknown			
461	69BG069003	SHIPPING WEST, NORTH END, WEST LINE???	Unknown			
462	69BG069001	SHIPPING WEST, SOUTH END, WEST LINE, #9 POLE	Unknown			
748	SBA84240101	SOUTH MILLS RECYCLE SUB	364			
184	PBV216501	SOUTH MILLS RECYCLE SUB.	290	31/21S5	136-K-27	
172	6990044	SOUTH SUB. N/E #3-POWER	2615	A1	65973-1	
171	6990045	SOUTH SUB. N/W #4-POWER	2615	A1	65973-1	
173	RCR23471	SOUTH SUB. S/E #5-POWER	2645	A1	65973-1	RETROFILLED 9/7/90
174	RCR23472	SOUTH SUB. S/E #6-POWER	2645	A1	65973-1	RETROFILLED 9/8/90
240	H886559	STEELMAKING - #3 EAF BAGHOUSE (NORTH)	320		57333	
337	7002349	STEELMAKING - #3 EAF TRANSFORMER	3500	1A	57301	
338	7002349	STEELMAKING - #3 EAF TRANSFORMER TAP CHANGER	325			
405	JEM12006	STEELMAKING - #4 ARC FURNACE TRANSF. TAP CHANGER	Unknown			
755	M163562	STEELMAKING - #4 EAF BAGHOUSE (SOUTH)	357		A-232	
386	7002559	STEELMAKING - #4 EAF TRANSFORMER	3500	1A / FD-283	57301	
387	7002559	STEELMAKING - #4 EAF TRANSFORMER TAP CHANGER	325			
264	PAV787001	STEELMAKING - ARC FURNACE COOLING TOWER	155	17A / OE3	61301	RETROFILLED 3/30/90
263	SBV002001	STEELMAKING - ARC FURNACE COOLING TOWER	277	17A / OE2	61301	RETROFILLED 10/18/92
756		STEELMAKING - ARC FURNACE MAINT. BLDG.	Unknown		57301	
239	C864641	STEELMAKING - BOF COOLING TOWER NORTH OF SCRAP YARD	360	22 / 12E2	57302	
242	3298190	STEELMAKING - BOF RECTIFIER	1428	20 / 4E1	A232	
241	3288919	STEELMAKING - BOF SUB.	440	19 / 3E1	A232	
262	PBV786901	STEELMAKING - CONTINUOUS BILLET CASTER - ROKOP	196	17A / OE1	2485-6A5	RETROFILLED 3/30/90
823	A2671T	STEELMAKING - EAF FLICKER SUBSTATION	9865		57307	
411	C0651151	STEELMAKING - LADLE REFINING FURNACE (LRF) TRANSF.	2390	1A	57301	

TABLE 3
TRANSFORMERS WITH CAPACITY >55 GALLONS
By Mill/Substation

NO.	SERIAL NO.	MILL LOCATION	GALS. OF OIL	148 -K-25, SH. NO./BKR.	REFERENCE DRAWING	NOTES
776	2429468	STEELMAKING - LADLE TREATMENT STATION (MCC 6)	Unknown			
412	C0651152	STEELMAKING - LRF TRANSF. TAP CHANGER	190			
401	PBT85810101	STEELMAKING - PLATFORM SUB.	157	25 / 17E2		
400	PBT85810102	STEELMAKING - PLATFORM SUB.	157	25 / 17E2		
399	PBT85810103	STEELMAKING - SOUTHWEST OF ROUND CASTER	157	17A / OE1		
780	PFQ39650101	STEELMAKING - VTD/LRF UNIT SUBSTATION	350			
781		STEELMAKING OFFICE	Unknown		57333	
189	PAV146001	WIRE MILL - GALVANIZED EAST OF #4	251	26/4S3	49677	RETROFILLED 5/23/93
132	7099983	WIRE MILL - N/W NAIL ROOM AIR COMPRESSOR	320			RETROFILLED 4/3/93
431	3234303	WIRE MILL - NORTH END (HRM DRAWING MACH.)	520		49677	
211	3779646	WIRE MILL - NORTH ENTRANCE	450	26 / 4S3	49677	
213	3779647	WIRE MILL - NORTH ENTRANCE	450	26 / 4S3	49677	
212	3779648	WIRE MILL - NORTH ENTRANCE	450	26 / 4S3	49677	
796	74I819106	WIRE MILL - NORTH TOWER	Unknown		49677	
201	4905263	WIRE MILL - NORTH TOWER SUBSTATION	255	26 / 4S3	49677	
200	4905264	WIRE MILL - NORTH TOWER SUBSTATION	255	26 / 4S3	49677	
202	4905265	WIRE MILL - NORTH TOWER SUBSTATION	255	26 / 4S3	49677	
199	3092839	WIRE MILL - NORTH TOWER SUBSTATION	446	26 / 4S3	49677	
197	3092840	WIRE MILL - NORTH TOWER SUBSTATION	446	26 / 4S3	49677	
797	3092841	WIRE MILL - NORTH TOWER SUBSTATION	446	26 / 4S3	49677	
203	3519316	WIRE MILL - NORTH TOWER SUBSTATION	590	26 / 4S3	49677	
803	1809487	WIRE MILL - POLE S.E. CORNER SPRAY POND	96		49677	
804	7940994	WIRE MILL - RECTIFIER ROOM	Unknown			
805	7940995	WIRE MILL - RECTIFIER ROOM	Unknown			
209		WIRE MILL - RECTIFIER ROOM	Unknown			
811		WIRE MILL - TUNNEL BELOW 4 MORGAN WIRE DRAWING MACHINE	Unknown		49677	
813		WIRE MILL - WELDED FABRIC RECTIFIER	Unknown		49677	
192	C72322	WIRE MILL - WEST SIDE NAIL ROOM	140	26 / 4S3	59677	
191	C72323	WIRE MILL - WEST SIDE NAIL ROOM	140	26 / 4S3	59677	
193	C72324	WIRE MILL - WEST SIDE NAIL ROOM	140	26 / 4S3	59677	
195	5125537	WIRE MILL - WEST SIDE NORTH OF NAIL ROOM	173	26 / 4S3	59677	
196	5125538	WIRE MILL - WEST SIDE NORTH OF NAIL ROOM	173	26 / 4S3	59677	
194	63M11323	WIRE MILL - WEST SIDE NORTH OF NAIL ROOM	55	26 / 4S3	59677	
	C00831982	WIRE MILL - WEST SIDE NAIL ROOM	Unknown			
	PAB33160001	WIRE MILL - GALVANIZED EAST OF #4	229			
169	F963645	YMCA (RETROFILLED 4/27/90)	140	27/5S3	49677	
567	PA		Unknown			

Table 4
Summary of Oil-Filled Operational Equipment

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
Steelmaking									
STL-CHB-1	DEMAG Caster Hydraulic Building	2,100	Hydraulic oil	Steel	Gauge	None (a)	NA		Onto floor of building and out to surrounding ground
STL-CMH-1	DEMAG Caster Machine Hydraulic Room	600	Hydraulic oil	Steel	Gauge	None (a)	NA		Onto building of building and out to surrounding ground to sloped covered area
STL-EF5-1	EAF #5 Hydraulic Tank	470	Hydraulic oil	Steel	Gauge	None (a)		Steelmaking	Sump inside room drains into low area of Steelmaking
STL-LRF-1	LRF Hydraulic Building	240	Hydraulic oil	Steel	Gauge	Concrete berm	>670		Drains within berm discharge to North Mills Treatment System
STL-LRF-2		670	Hydraulic oil	Steel	Gauge	Concrete berm	>670		Drains within berm discharge to North Mills Treatment System
South Outside Area									
STL-PCB-1	South side Precipitator Control Building	Two 55-gallon drums	Used oil and new oil	Steel	None	None (a)			Onto ground
Rail Mill									
RLM-SBU-1	Staking Bed	200	Hydraulic oil	Steel	Gauge	None (a)			
RLM-WS1-1	Inlet Bed	211	Hydraulic oil	Steel	Gauge	None (a)			
RLM-SBU-1	Inlet Bed	120	Hydraulic oil	Steel	Gauge	None (a)			
RLM-END-1	Ender #3	100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		
RLM-END-2	Ender #3	100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		
RLM-END-3	Ender #3	100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		
RLM-SKD-1	Reservoir for Skid	500	Hydraulic oil	Steel	Gauge	Concrete berm	>540		Drains to North Mill treatment system
RLM-RFS-1	Rail Finishing @ South Ender	200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-ELE-1	West of Electric Shop; Saw Bed Unit	200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-ELE-2		100	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-ELE-3		200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-ELE-4		300	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-ELE-5		200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-CNV-1	West of Electric Shop; Conveyor Equipment	40	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-CNV-2		100	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building

Table 4
Summary of Oil-Filled Operational Equipment

Tank #	Location	Storage Capacity (gal)	Contents	Construction Material	Fail-Safe Features	Containment	Containment Size (gal)	Diversionary System	Drainage
RLM-ELE-2	Adjacent to Electric Shop	200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-END-1	#3 Ender	200	Hydraulic oil	Steel	Gauge	None (a)			Onto floor of building
RLM-RFH-1	Rail Finishing Hydraulic Room	2,200	Hydraulic oil	Steel	Gauge	Concrete berm	>2,200		Drains to North Mill treatment system
RLM-SSF-1	South Side Finishing/ Shipping Hydraulic Room	100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		Onto floor of building
RLM-SSF-2		100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		Onto floor of building
RLM-SSF-3		100	Hydraulic oil	Steel	Gauge	Concrete berm	>300		Onto floor of building
RLM-HHT-1	Head Hardner Transfer Bed	420	Hydraulic oil	Steel	None	None (a)		Rail Mill	Onto floor of building
RLM-RIL-1	Power House/Riley House	500	Diesel	Steel	Gauge	None (a)	NA		Onto ground
RLM-RIL-2	Power House/Riley House	500	Gasoline	Steel	Gauge	None (a)	550		Into tank, no drainage valve
RLM-FOS-2	Finishing Oil Storage Area	55 – 600 (drums and totes)	Various new oils	Steel/plastic	NA	None (a)	NA	Rail Mill	Onto floor of building

Notes:

(d) Although containment has not been provided for these tanks/areas, all drainage at the facility flows to the onsite wastewater treatment system.

EVRAZ ROCKY MOUNTAIN STEEL

SPCC PLAN

REVISED September 2015

PART II

SECTION II

HAZARDOUS WASTE

CONTINGENCY PLAN

(SPCC)

PART II

SECTION II

HAZARDOUS WASTE CONTINGENCY PLAN

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GENERAL FACILITIY INFORMATION

NAME OF FACILITY: EVRAZ Rocky Mountain Steel

TYPE OF FACILITY: Steel Manufacture

LOCATION OF FACILITY
2100 South Freeway
Pueblo, Colorado 81004

DATE OF INITIAL OPERATION: Late 1800s.

NAME AND ADDRESS OF OWNER OR OPERATOR
CF&I Steel, L.P. dba EVRAZ Rocky Mountain Steel
1612 East Abriendo
Pueblo, Colorado 81004

Designated person accountable for Plan maintenance and emergency response at facility:
Name: Craig West
Title: Manager Environmental
Telephone Number: (719) 561-6536
Fax Number: (719) 561-6873

PURPOSE AND SCOPE OF PLAN

This Hazardous Waste Contingency plan is included as part of ERMS's SPCC plan. Since ERMS is a large quantity generator of hazardous waste, a written contingency plan must be maintained on site at all times. This plan meets hazardous waste management provisions outlined in the Colorado Hazardous Waste Regulations in 6 CCR 1007-3 Part 265 Subpart D and the Environmental Protection Agency hazardous waste contingency plan requirements under 40 CFR 265, Subpart D. This plan is designed to minimize hazards to human health and the environment from fire, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water (including storm sewers). In addition, this plan incorporates the handling, temporary storage, and off-site disposal of hazardous wastes generated at the Pueblo facility. Handling procedures, site descriptions, required inspections, and any recommendations are identified in sections on each area of generation, temporary storage, or disposal. This is not a stand alone plan, as critical information is contained in Part I of the SPCC plan, titled as Emergency Response and Contingency Plan

1.0 FACILITY OPERATIONS

1.1 GENERATION AND TEMPORARY STORAGE AREAS

1.1.1 Electric Furnace Emission Control Dust

Emission control dust from the two electric furnace baghouses (K061) is periodically emptied into a railroad hopper car. Any spills would be cleaned up by hand or by a mobile vacuum truck and them transferred to a railroad hopper car. No surface waters or sewers are in the transfer area. The dust is then shipped off site for disposal.

Other K061 accumulation areas may exist on site from time to time (e.g., rolloff at the EAF baghouse area) during cleaning and maintenance activities.

1.1.2 Safety Kleen Solvents

Maintenance solvents are managed by Safety Kleen, a solvent management company. Ignitable solvents (D001) have been phased out and replaced with non hazardous solvents. Spent solvents are characterized, manifested, and recycled by Safety Kleen. The potential for spills exists when the drums are exchanged by Safety Kleen. Spills which would be small, inside of buildings, and would be cleaned up by Safety Kleen personnel. Solvent locations are noted on drawing # 69289.

1.1.3 Universal Wastes

Used fluorescent bulbs, mercury vapor bulbs, and batteries are accumulated at the satellite accumulation points. See Part I page A-3 for a list of satellite accumulation points and drawing # 73513-A for locations. When the containers are full, they are transferred to the 90-day hazardous waste accumulation point known as the Garage.

1.1.4 Waste Aerosol Cans

Waste aerosol cans containing either material or propellant are accumulated at the satellite accumulation points. See Part I page A-3 for a list of satellite accumulation points and drawing # 73513-A for locations. When the containers are full, they are transferred to the 90-day hazardous waste accumulation points known as the Garage.

1.2 DISPOSAL AREAS

1.2.1 Hazardous Waste Unit

ERMS formerly operated two hazardous waste disposal sites known as stations "B" and "E." Station "E" was certified closed in December 1991 and station "B" was certified closed on January 13, 1992. Post-closure plans for stations "B" and "E" were approved on May 13th 1992. The potential for release of hazardous waste from these facilities is remote.

1.2.2 90-Day Hazardous Waste Accumulation Points (Known as the Garage)

A 90-day accumulation point (called the Garage) has been designated as the central location for staging the shipment of hazardous waste and substances for disposal. All hazardous material except Electric Arc Furnace dust, which is loaded directly to a railroad car, is staged through these areas. The Carpenter Shop location will only be in use from September 1, 2014 until March 1, 2015; the Garage will be in use after December 1, 2014. Hazardous waste is shipped in less than 90 days.

2.0 ROUTINE SURVEILLANCE AND INSPECTION PLAN

Routine surveillance of hazardous materials used in the facility work areas is conducted by operating personnel. Personnel are trained in good housekeeping practices.

2.1 Hazardous Waste Facilities

Stations "B" and "E" are in post-closure. Inspections are carried out in accordance with the post-closure plans. Groundwater monitoring is conducted Semi-annually while facility inspections are conducted monthly (see Appendices A and B for inspection forms).

2.2 90-Day Hazardous Waste Accumulation Points

The 90-day accumulation point, the Garage, contain both hazardous waste and hazardous substances. The materials are placed in different designated areas to prevent mixing. These areas are inspected once a week and logs of these inspections are maintained in the environmental office.

2.3 Satellite Accumulation Point

The satellite accumulation points are inspected weekly and logs of these inspections are maintained in the environmental office. Materials are moved to

the 90-day hazardous waste accumulation point as required by applicable Colorado Department of Health and Environment and EPA regulations.

2.4 Inspection process

All hazardous material storage areas, secondary containment systems, lagoons and basins are inspected on a regular basis. In addition, ERMS Safety and Security Departments maintain emergency response equipment in operational form at all times, including alarms, communication systems, fire protection equipment, etc.

In the event the inspections reveal a problem, the proper steps will immediately be taken to ensure the problem does not lead to an environmental or health hazard. Remedial action will be taken as soon as the proper equipment and materials can be obtained. Details of incidence response procedures are outlined in Part I of the SPCC Plan.

3.0 SECURITY

The ERMS facility is surrounded by a fence which is periodically inspected and kept in good repair. The only area which is not fenced is the Indiana Street entrance which is gated and continuously monitored by guards. A roving patrol monitors activities throughout the plant. All gates to the facility are locked with the exception of the frontage road utilized by a subsidiary company. The area is used daily and all entrances to the ERMS facility are either locked or continuously monitored at night. Signs with the legend **"DANGER - Unauthorized Personnel Keep Out"** in English and Spanish are posted at both access roads to Stations “B” and “E.” These signs are legible from a distance of 25 feet.

4.0 RECORDKEEPING

All inspection reports, spill logs, spill response documentation and follow-up reports to regulatory agency will be maintained in the SPCC file for the facility, located in the environmental offices, for a period of at least three years. Detailed spill notification procedures are located in Section F of Part I of the SPCC Plan.

5.0 CONTINGENCY PLAN AND EMERGENCY PROCEDURES

5.1 Introduction

The Hazardous Waste Contingency Plan and Emergency Procedures are incorporated into the SPCC, Emergency Plan and Contingency Plan, Part I, of the SPCC Plan.

Part I, Emergency Response – Contingency Plan defines the actions to be taken if there should be a hazardous waste emergency at the Pueblo plant. This procedure minimizes danger to the health and safety of personnel, environment, and operating capability of the facility. The facility evacuation plan is also outlined in Part I of the SPCC Plan.

5.2 Hazardous Material Emergency

Any incident or occurrence which results in a release to the environment involving any hazardous material referenced under one or more of the following Federal Regulations:

5.2a SARA Section 302 Extremely Hazardous Substances - Superfund Amendments and Re-authorization Act of 1986.

5.2b CERCLA Hazardous Substances ("RQ" Chemicals) Comprehensive Environment response, Compensation and liability Act of 1980.

5.2c SARA Section 313 Toxic Chemicals of 1987.

5.2d RCRA Hazardous Wastes - Resource Conservation and Recovery Act 1976.

5.2e OSHA - Section 1910.1000 and 1910.120 Occupational Safety and Health Administration 1970.

5.2f TSCA - Toxic Substances Control Act.

5.3 Hazardous Material Spill Clean-up

All spills of hazardous materials shall be cleaned up as rapidly and effectively as possible to prevent or control impacts to the environment using methods suitable to the material spilled. Verification of clean up of spills on surfaces impermeable to the hazardous material will be done by a documented visual inspection of the impacted surface. Verification of clean up of spills on permeable materials will be accomplished by sampling the materials impacted in accordance with EPA SW-846 and ERMS's Field and Laboratory Procedures Manual (FLPM) and updates to either. Documentation of all such activities will be maintained for a period of three years.

5.4 Mutual Aid Agreement with Pueblo

ERMS maintains a mutual aid agreement with the city of Pueblo Fire and Police Departments (see Appendix F).

6.0 PERSONNEL TRAINING PROGRAM

ERMS's hazardous waste training program is designed to provide employees with basic knowledge to:

a) Identify hazardous materials.
b) Recognize that a waste material is a hazardous waste.
c) Take appropriate action in handling, storing, transporting, and disposing of hazardous waste.
d) Take appropriate action when a spill or other emergency occurs.

This program is made up of four training categories to provide the degree of training to the employee to meet the demands of his/her contact with hazardous waste. The categories include: General Hazardous Material/Waste Training, Job Specific Hazardous Waste Training, Emergency Response Training, and Manager/Management Training.

6.1 General Hazardous Waste Training

a. General hazardous waste training provides policy, procedure, and information to employees on the following: How to identify hazardous materials; What constitutes a hazardous waste; How to handle, store, transport, and dispose of hazardous waste: and What to do if a spill of hazardous waste occurs. (See OSHA 1910.1200 Hazard Communications Written Hazard Communication Program, Appendix D.)

b. General hazardous waste training is applicable to all employees.

c. General hazardous waste training is conducted at the department level by disseminating policy, procedures, pamphlets, data sheets, films, and other information provided by Environment and Safety & Security.

d. Training consists of monthly distribution of training materials, as appropriate.

6.2 Specific Job Training

a. Specific job training provides detailed policy, procedures, and practices in response to a specific hazardous waste. Training includes sessions on: Waste characterization - Hazards of waste; Regulatory requirements; Job practices: Emergency Procedures including emergency response - onsite and offsite; Operations, curtailments, and site evacuations; Spills, reportable quantities, National Response Center reporting.

b. Specific job training is applicable to all employees.

c. Specific job training is conducted at the unit level by first line supervision, hazardous waste coordinators, Safety & Security Department, and Environment Department personnel.

d. Training consists of daily supervisor - employee contact, job safety contact, special topics by department hazardous waste coordinators, Safety & Security, and Environmental.

Initial training will consist of classroom training and on-the-job training.

Training must be completed within six months of the date of employment or assignment to the unit. Training review will consist of a review of initial training on an annual basis.

6.3 Emergency Response Training

a. Emergency response training provides training in addition to specific job training for employees who respond to spills and emergencies. Training includes specific training on chemical identification, chemical toxicity, personnel protection, response management, leak and spill repair and containment, sources of assistance, and decontamination.

b. Emergency response training is applicable to employees who form the Emergency Response Team.

c. Emergency response training is conducted by offsite emergency response professionals with experience and knowledge in hazardous material response.

d. Initial training consists of 40 hours of classroom with hands-on exercises with simulated incidents.

e. Emergency Response Job Descriptions (See Appendix E) Refresher training consists of 8 hours of review of the initial training.

6.4 Manager/Management Training

a. Manager/Management training provides:

General policies, procedures and information to implement and execute ERMS's hazardous waste program.

Guidance, explanations, interpretations and information to develop ERMS's hazardous waste program.

Management skills to manage hazardous waste activities.

b. Manager/Management training is applicable to:

Implementation training - Department superintendents, first line supervisors, plant hazardous materials coordinators, and emergency response supervisors.

Policy Development training - Managers responsible for developing environmental, health and safety programs.

c. Manager/ Management training is conducted at the management level.

d. Training consists of:

Explanations and distribution of policies, procedures, and information to managers to be implemented.

Attendance of offsite seminars and/or training sessions covering specific topics of interest to provide management with the skills to implement policy.

Attendance of offsite seminar and/or training seminar covering guidance, explanations, interpretations and information on regulatory programs.

e. Training Records

All hazardous waste training received by an employee must be Documented and that documentation must be placed in the employee's files. The "Hazardous Waste Training Record" must be completed for each employee receiving training.

6.5 Applicable Regulatory Training Requirements

Applicable training requirements shall include:

OSHA 29 CFR 1910.120; 29 CFR 1910.1200
RCRA 40 CFR 264.16; 40 CFR 265.16
DOT 49 CFR 172.204

APPENDIX A

Station “B” Surface Impoundment
Post-closure Inspection and
Station “E” Waste Pile
Post-closure Inspection

FIGURE 3-1

STATION B SURFACE IMPOUNDMENT POST-CLOSURE INSPECTION
(page 1 of 2)

Name of Inspector _____ Date _____
Is this a scheduled inspection? _____

INSPECTION ITEM	YES	NO	ACTION REQUIRED	FOLLOWUP COMPLETED
Cap and Cover				
- Settlement	___	___	_____	_____
- Ponding of Water	___	___	_____	_____
- Cracking	___	___	_____	_____
- Visible signs of erosion	___	___	_____	_____
East Embankment				
- Settlement or bulges	___	___	_____	_____
- Erosion or washout	___	___	_____	_____
- Cracking	___	___	_____	_____
Slopes West of Station B				
- Erosion	___	___	_____	_____
- Settlement or bulges	___	___	_____	_____
- Slides	___	___	_____	_____
- Cracking	___	___	_____	_____
Drainage and Diversion System Maintenance				
- Visible signs of erosion or washout	___	___	_____	_____
- Ponding of water	___	___	_____	_____
- Debris accumulation	___	___	_____	_____
- Trees or bushes growing	___	___	_____	_____
- Greater than 6" sediment Accumulation	___	___	_____	_____
- Damage to Geomembrane	___	___	_____	_____
Monitoring Wells (MW-1, MW-2A, MW-2B, MW-2C, MW-3, MW-87-4, MW-87-5, MW-87-6, MW-87-7 and MW-87-8)				
- Caps ok?	___	___	_____	_____
- Surface seals ok?	___	___	_____	_____
- Locks ok?	___	___	_____	_____
- Casing ok?				
- No sediment accumulation	___	___	_____	_____
- Positive Drainage away from annulus	___	___	_____	_____
Fence				
- Working gates and locks	___	___	_____	_____
- Condition of posts and barbed wire	___	___	_____	_____

FIGURE 3-1

STATION B SURFACE IMPOUNDMENT POST-CLOSURE INSPECTION
(page 2 of 2)

Name of Inspector_____ Date_____
Is this a scheduled inspection? _____

INSPECTION ITEM	YES	NO	ACTION REQUIRED	FOLLOWUP COMPLETED
Signs (should be located around the perimeter of the fence; one at each access point and no more than 200 foot intervals thereafter, there should be a total of 23 signs)				
- Presence of	___	___	_____	_____
- Legibility	___	___	_____	_____
Miscellaneous				
- Leachate alarm	___	___	_____	_____
Activated	___	___	_____	_____
Tested	___	___	_____	_____
- Liquid accumulation in the sumps associated with the leachate collection system	___	___	_____	_____
- Liquid accumulation in the sumps associated with the leak detection system	___	___	_____	_____

COMMENTS_____

Inspector Signature_____

Authorized person responsible for post-closure maintenance to review report and sign below.

Name (print)_____

Signature_____

Date_____

FIGURE 3-2

STATION E WASTE PILE POST-CLOSURE INSPECTION
(page 1 of 2)

Name of Inspector _____ Date _____
Is this a scheduled inspection? _____

INSPECTION ITEM	YES	NO	ACTION REQUIRED	FOLLOWUP COMPLETED
Cap and Cover				
- Settlement	___	___	_____	_____
- Ponding of Water	___	___	_____	_____
- Cracking	___	___	_____	_____
- Visible signs of erosion	___	___	_____	_____
- Vegetation	___	___	_____	_____
Drainage and Diversion System Maintenance				
- Visible signs of erosion or washout	___	___	_____	_____
- Ponding of water	___	___	_____	_____
- Debris accumulation	___	___	_____	_____
- Trees or bushes growing	___	___	_____	_____
Monitoring Wells (MW-87-1, MW-87-2, MW-1 and MW-3A)				
- Caps ok?	___	___	_____	_____
- Surface seals ok?	___	___	_____	_____
- Locks ok?	___	___	_____	_____
- Casing ok?				
- No sediment accumulation	___	___	_____	_____
- Positive Drainage away from annulus	___	___	_____	_____
Fence				
- Working gates and locks	___	___	_____	_____
- Condition of posts and barbed wire	___	___	_____	_____
Signs (should be located around the perimeter of the fence; one at each access point and no more than 200 foot intervals thereafter, there should be a total of 13 signs)				
- Presence of	___	___	_____	_____
- Legibility	___	___	_____	_____

FIGURE 3-2

STATION B SURFACE IMPOUNDMENTS POST-CLOSURE INSPECTION
(page 2 of 2)

Name of Inspector_____ Date_____
Is this a schedule inspection? _____

INSPECTION ITEM	YES	NO	ACTION REQUIRED	FOLLOWUP COMPLETED
• Miscellaneous				
• Infringement of any excavation within 2:1 slope outside of security fence	___	___	_____	_____

COMMENTS_____

Inspector Signature_____

Authorized person responsible for post-closure maintenance to review report and sign below.

Name (print)_____

Signature_____

Date_____

APPENDIX B

Monitoring Well Inspection
Form

TABLE D-2
MONITORING WELLS INSPECTION FORM

Name of Inspector: _____ Date: _____

Well No.	Locked Upon Arrival	Damage to Cap or Riser	Damage to Surface Seal	Blockage Within Well	Unusual Pumping Conditions	Sediment Accumulation	Comments
MW-1							
MW-2A							
MW-2B							
MW-2C							
MW-3							
MW-3A							
B7-1							
B7-2							
B7-3							
B7-4							
B7-5							
B7-6							
B7-7							
B7-8							

APPENDIX C

Daily Environmental Water &
Solid Waste Report

DAILY ENVIRONMENTAL WATER & SOLID WASTE REPORT

Day	Date	Operator	Precipitation (inches)	>3.8"	Weather	Wind direction and speed (MPH)	Port pH Cal	Lab frig (°F)
Su								
M								
Tu								
W								
Th								
F								
Sa								

>3.8" Precipitation, Inspection of Stations B & E is required

	RESERVOIR DATA				PLANT EFFLUENT DATA - 10' Flume								10' Vis. Oil	8' Flume			
Day	Date	pH	Tmp (°c)	Frig (°F)	Time	Tmp(°c)	cont. pH	Lab pH	Do	E-Meter (ft.)	Visual (ft.)	Frig (°F)	(Y/N)	Gage (ft.)	pH	CFS	MGD
Su																	
M																	
Tu																	
W																	
Th																	
F																	
Sa																	

	Duck Pond			NML		WMWO		WMNR		SMRS		VTDCL		DWTP		
Day	Date	pH	DO	Time	pH	Time	pH	Time	pH	Time	pH	Time	pH	Time	pH	Flow (GPM)
Su																
M																
Tu																
W																
Th																
F																
Sa																

SEWAGE PLANT DATA

		Influent								Effluent				Lagoon #		COMMENTS
Day	Date	Time	Temp	pH	TS	DO	BOD	Time	Temp	pH	TS	DO	BOD	Temp.	DO	
Tu																

Inspection Log - WASTE FACILITIES

LOCATION	Inspection Date	Initial	Date	Initial
South Dump -) Station A				
-) Station C				
-) Station D				
Excavation - PROPER DISPOSAL				
Steel Making - Arc Furnace BH Silos				
Trash - Unauthorized Material				
Ball Parks 2 & 3 - Unauthorized Mat.				

CASUAL AIR OBSERVATIONS

Date	Rail Fce	Time	Rod Fce	Time	Stm R Fce	Time	DJJ	Time	HMS	Time
Su										
M										
T										
W										
Th										
F										
Sa										

OFFSITE FUGITIVE OBSERVATIONS

			WIND		LOCATION	SOURCES	OBSERVATION 1		OBSERVATION 2		CPL	* CORRECTIVE ACTIONS
Day	Date	Time	Direction	Velocity (MPH)			Emissions	Time	Emissions	Time	(Y/N)	
Su												
M												
Tu												
W												
Th												
F												
Sa												

COMMENTS:

*Date, time, cause and description of corrective action taken must be documented.

APPENDIX D

OSHA 1910.1200
Hazardous Communication
and Training Outline

2/14/86
Revised 2/06/98
Revised 2/22/10

EVRAZ ROCKY MOUNTAIN STEEL

OSHA 1910.1200 HAZARD COMMUNICATION

WRITTEN HAZARD COMMUNICATION PROGRAM

This written Hazard Communication Program has been developed and implemented at Evraz Rocky Mountain Steel in order to comply with OSHA regulation 1910.1200

Hazardous chemicals as defined by the OSHA regulation, and which are purchased by Evraz Rocky Mountain Steel, have been entered into a computer program. The computer program will provide information on chemicals, trade name, manufacturer and locations within Evraz Rocky Mountain Steel where the material is utilized. The cross referencing capability of this computer program will be utilized in locating safety data sheets as requested. This information is available to any employee through the Safety office.

Employees performing tasks which could involve exposure to hazardous chemicals will be trained prior to performing the work assigned. Safe Job Procedures will include and identify the chemical hazards and work procedures to be followed and used by the employees on these special non - routine jobs. The Safe Job Procedures will also specify any special work methods or personal protective equipment necessary for the employees to perform the job safely. Special procedures will be developed and employees trained for non-routine tasks which could involve exposure to hazardous chemicals.

Work areas in which utility piping carries hazardous chemicals will be identified and employees trained on what to do in case of an emergency situation.

Contractor employees will be advised of any hazardous chemicals during a job pre - bid meeting. Special work procedures and/or personal protective equipment requirements will be identified at that time. Periodic checks of the contractor employees will be made during the life of the contract to insure compliance with special work procedures and/or personal protective equipment.

The receipt of incoming materials will be randomly sampled to ensure that each hazardous or potentially hazardous chemical is labeled, tagged, or marked with the information as specified in 1910.1200. For those items received which are not in compliance, a follow-up call will be made to the manufacturer or distributor. In the meantime, appropriate labeling will be completed by Evraz Rocky Mountain Steel personnel to provide identity of the hazardous chemicals as well as appropriate hazard warnings. A modified form of the Hazardous Materials Information System (HMIS) is utilized throughout Evraz Rocky Mountain Steel as a means of labeling secondary

containers. The hazard rating Health, Flammability, Reactivity, and Target Organ Effects is a numerical rating system with the data taken from the applicable Material Safety Data Sheet (MSDS) or the chemical reference books in the Safety Department.

Material Safety Data Sheets will be maintained in the Safety Department and the Plant Protection Office. MSDSs received will be checked for completeness of data and where necessary the manufacturer or distributor will be requested to furnish missing data when deemed necessary. Basic data from each MSDS will be entered into a computer program capable of rapid retrieval of basic information. A copy of any MSDS shall be made available to an employee requesting data on a particular material being used in the workplace. The MSDSs are available 24 hours per day, 7 days a week. Should materials be found in the workplace for which no MSDS has been received, follow up action shall be immediately initiated to obtain the MSDS from the manufacturer or distributor. Employee training on new materials will be given following receipt of the MSDS and evaluation of the hazards by the Safety Department.

Training on the overall content of the OSHA Standard 1910.1200 has been provided to all levels of supervision. The basic portions of the Standard were reviewed with particular emphasis being placed on the MSDS and how to read and understand the information provided. The labeling requirement and type of information to be provided with a label were also reviewed. The training requirements for employees were reviewed with specific attention given to when the training should be given (annually) and what data should be included. The need for safe job procedures with specific attention to chemical hazards and how to protect the employee through either work procedures or specific personal protective equipment was also given in the training session. All levels of supervision were advised of the need to train all employees and to maintain open lines of communication so that problems can be discussed and resolved quickly and efficiently.

As specified within the OSHA standard a Material Safety Data Sheet and label have been developed for all Evraz Rocky Mountain Steel products produced and sold. The MSDS and label are sent to each new customer with their initial order. When conditions warrant updates to the Evraz Rocky Mountain Steel MSDS and/or label, copies of the revision are sent to all Evraz Rocky Mountain Steel customers.

Copies of the completed MSDSs and Labels for all Evraz Rocky Mountain Steel products are available through the Safety Department.

The attached training outline covers the training materials and subject matter covered by the immediate supervisor of employees who may work with hazardous materials throughout Evraz Rocky Mountain Steel.

Additionally, the following video tape programs are available from the Safety Department to further supplement the training requirements of OSHA 1910.1200:

1) HAZARD COMMUNICATION STANDARD: 29CFR
National AudioVisual Center
8700 Edgeworth Drive
Capitol Height, MD 20743

2) INTRODUCTION TO HAZCOM
NUS Training Corporation
910 Clopper Road
Gaithersburg, MD 80878

3) MATERIAL SAFETY DATA SHEETS
NUS Training Corporation
910 Clopper Road
Gaithersburg, MD 80878

3) HAZCOM LABELING
NUS Training Corporation
910 Clopper Road
Gaithersburg, MD 80878

TRAINING OUTLINE

Hazard Communications - Evraz Rocky Mountain Steel

I. Information

A. Scope and Purpose

1. The OSHA Standard 1910.1200 entitled Hazard Communication has been made into a law to address the issue of evaluating the potential hazards of chemicals and communicating information concerning hazards and appropriate protective measures to employees.

B. Components of Hazard Communications Program

1. Written Hazard Communication Program
2. Material Safety Data Sheets
3. Written Hazard Evaluation Procedures
4. Container Labels
5. Other Forms of Warning
6. Training for employees performing non-routine tasks
7. Chemical hazards associated with unlabeled pipes

C. Work Area Chemicals

1. Chemicals are either health or physical hazard-review of definitions.

2. Methods which chemicals can affect the body.
   a. Inhalation
   b. Ingestion
   c. Skin absorption
   d. Eye contact

3. Area supervisor can provide specific data on chemicals present in the workplace.

4. Special work procedures and personal protective equipment where exposure levels exceed OSHA Permissible Exposure Limits.

D. Program Storage

1. All materials relating to the Hazard Communications program will be maintained and stored in the Safety Department
2. Copies of any and/or all of the program will be provided to any employee so requesting.
3. MSDSs are available through the Safety Department after hours and on weekends from Guard Headquarters.

II. Training

A. Hazard Communication

1. How to read and interpret information on labels.

2. How to read and interpret data on MSDSs provided to Evraz Rocky Mountain Steel

3. Where to obtain additional hazard communication data.

B. Chemical Hazards in Work Place

1. Review specific chemicals as either being health or physical hazard and where they are used.

2. Emergency procedures to be followed where applicable.

C. Protective Measures

1. Training and review of Safe Job Procedures developed for use with chemicals to protect the employee.

2. Personal protective equipment provided for use by the employee when working with specific chemicals.

D. Methods of Detection

1. Personal - visual or smell - what action to take if either occurs

2. Detection tubes - Safety Office for assistance – tubes to be used as qualitative check for a specific chemical (whether chemical is present or not).

3. Sampling pumps - Safety Office for assistance - will provide accurate quantitative exposure results to determine whether or not overexposure is occurring.

APPENDIX E

Hazardous Material
Job Description

RCRA Job Descriptions Summary–Sep 15

Facility Environmental Manager

The Facility Environmental Manager is responsible for the overall environmental compliance of EVRAZ Pueblo. This person should be aware of required waste training needs, facility waste handling practices, waste profiling requirements, waste storage inspection requirements, off-site waste disposal requirements and interaction with environmental department staff performing these duties. This person also serves as the Emergency and Spill Prevention Control and Countermeasures Coordinator.

Current Facility Environmental Manager: Craig West

Current/Recommended Training Requirements: US DOT (49 CFR 172); 29 CFR 1910.120 and 1200 (HAZCOM); and 40 CFR 264 and 265 (hazardous waste); FEMA NIMS 100, 200 and 700, site specific Station B and E criteria.

Frequency: Annual training/refresher for HAZCOM, Hazardous Waste and Station B and E. US DOT/NIMS every 3 years.

Hazardous Waste Manifest Handler

This individual is responsible for ensuring waste manifests are completed in accordance with federal and state regulations. This individual must be familiar with both RCRA and DOT and CDPHE manifest requirements and the proper shipping codes for the waste being represented on a manifested shipment. This person should also be familiar with the land disposal restrictions of the waste being shipped and DOT transport requirements. The signer must also be aware of the requirements for a commercial waste transporter, and ensure the location to which the waste is being shipped for disposal is correct.

Current Hazardous Waste Manifest Handlers:

Environmental Department Staff: Alex Bechthold, Nancy Colvin, Richard Gallegos, James Rodacy, Craig West and Nathan Hoffmeyer

Transportation Department Staff: Gabriel Torres

Current /Recommended Training Requirements: US DOT (49 CFR 172) and 40 CFR 264/265 (haz waste)

Topics to include (at a minimum): Properties of facility wastes, reporting and recordkeeping, Land Disposal Restrictions, container management and packaging, labeling and placarding.

Frequency: Every 3 years.

Site Inspector

This personal must be familiar with the satellite waste storage requirements for both hazardous and universal waste. The inspector must understand container labeling, drum condition and site requirements while material is staged in the Satellite Accumulation Point and in the 90 day accumulation site. The inspector must also be familiar with the Station B and E inspection requirements and operation of the leachate collection system.

Current Hazardous Waste SAP/AS Inspectors:

Environmental Department Staff: Alex Bechthold, Richard Gallegos, James Rodacy, Craig West and Nathan Hoffmeyer

Safety Department Personnel: TBD

Current Recommended Training Requirements: US DOT (49 CFR 172); 29 CFR 1910.120 (HAZCOM); and 40 CFR 264 (hazardous waste); site specific Station B and E criteria.

Topics to include (at a minimum): Properties of facilities wastes, waste determination, reporting and recordkeeping, site management requirements, container management, inspections, packaging, labeling and placarding, contingency plan requirements, emergency response procedures, emergency equipment use, communications and alarms and site specific Station B and E criteria.

Frequency: Annual training/refresher for HAZCOM, Hazardous Waste and Station B and E. US DOT every 3 years.

Waste Disposal Worker/Operator

This personal performs work related to hazardous materials, removal, spill response, and transportation of material within the mill property. This person may be in a position to operate forklifts, machines or equipment to transport, lift or position material for hazard removal or supervise personnel who perform these functions. This person also assists the site inspectors with identifying containers and the storage, packaging and labeling requirements for the hazardous materials in their Department.

Current Waste Disposal Workers/Operators:

Environmental Department Staff: Alex Bechthold, Richard Gallegos, James Rodacy, Craig West and Nathan Hoffmeyer

Mill/Department Personnel: Mill Supervisors (See current Directory for names); Forklift Operators

Current/Recommended Training Requirements: 29 CFR 1910.120 (HAZCOM) and 40 CFR 264 (hazardous waste).

Topics to include (at a minimum): Properties of facilities wastes, waste determination, reporting and recordkeeping, site management requirements, container management, inspections, packaging, labeling and placarding, contingency plan requirements, emergency response procedures, emergency equipment use, communications and alarms.

Frequency: Annual training/refresher for HAZCOM and Hazardous Waste. OJT for site specific criteria annually or when conditions change.

APPENDIX F

Mutual Aid
Agreement

MUTUAL AID AGREEMENT

WHEREAS, the City of Pueblo, hereinafter called the City, and The Colorado Fuel and Iron Corporation, hereinafter called the C. F. & I., each maintain fire departments for the protection of their respective properties; and

WHEREAS, it is to the mutual advantage of each party to provide aid to the other during times when the fire defenses of either are overtaxed.

NOW, THEREFORE, the parties hereto agree as follows:

1. In the event of fire or other emergency on the property or within the jurisdiction of either party, the party so affected may call upon the other to render assistance to the extent of its ability except as limited by the other provisions of this Agreement.

2. In the case of the City, assistance may be requested by the Mayor, City Manager, Director of Public Works, Fire Chief, or Police Chief.

3. In the case of the C. F. & I., officials authorized to request assistance shall include the Vice-President of the Minnequa Plant, the Works Manager, the Chief of Plant Protection, and such other persons as the Vice-President may specify.

4. Either party may refuse to provide aid if in the opinion of the officials above enumerated the conditions are such that rendering aid would jeopardize the lives or property for which the party is primarily responsible.

5. Each party shall protect its employees with workmen's compensation and other benefits to the same degree when rendering aid as is provided when the employees are working within the jurisdiction or on the property of their employer.

6. The party rendering aid shall work under the direction of the party requesting the aid, provided that the party rendering aid may refuse to carry out an order if in the opinion of the person in charge it would unnecessarily jeopardize the lives and property under his control.

7. The mutual protection which each party is to receive from the other shall be the consideration for this Agreement, and no compensation or remuneration shall be

required of either party to this Agreement for services rendered hereunder.

8. Each party hereby releases the other from any and all liability on account of acts or omissions of such party, its agents or employees, in performing services under this Agreement.

9. The Agreement shall take effect on September 1, 1954, and shall continue in force until terminated by either party thirty (30) days after written notice has been served.

SEAL

ATTEST:

/s/ Ellen Blackburn
Deputy City Clerk

CITY OF PUEBLO, a Municipal Corporation,

By /s/ Carl D. Bryant
President of the Council and
Mayor of Pueblo,
a Municipal Corporation.

SEAL

ATTEST:

/s/ D. C. McGrew
D. C. McGrew, Secretary

THE COLORADO FUEL AND IRON CORPORATION, of Pueblo, Colorado,

By /s/ Jay A. Martin
Jay A. Martin, Vice President in
Charge of Operations

ATTACHMENT 9

POST CLOSURE ACTIVITIES – OPERATIONS AND MAINTENANCE

Maintaining the Cap and Cover

Stations B and E were designed to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water or groundwater that could threaten human health or the environment, and to minimize maintenance requirements. Maintenance activities such as weed control, sediment removal, liner patching, sand or slag replacement will be conducted when inspections reveal a requirement. Replacement slag or rip rap will meet the criteria for the original material as specified in Tables 1a and 1b. No weed control measures will be used which may adversely affect groundwater quality. Liner repair will be done using the quality 30-mil HDPE material used in the closure. Sand or slag will be replaced to the thickness specified in the closure plan if visual inspections indicate that the thicknesses do not meet the original specifications.

Drainage and Diversion System Maintenance

The drainage and diversion systems at Stations B and E were established during closure to decrease erosion by wind and water by covering the systems with either slag or rip rap, except for ditches B2 and B3, which are lined with geomembrane (Figure 1) Replacement of slag or rip rap in the drainage and diversion system due to erosion loss, gullying, silting and unusual movement will be evaluated and conducted as indicated to be necessary by the visual inspections. Replacement slag or rip rap will meet the criteria for the original material as specified in Tables 1a and 1b. Repairs to the geomembrane will be conducted in the case of tears and degradation to the point where it does not function effectively as necessary during the monthly inspections.

If more than 6 inches of sediment has accumulated in the ditches, the sediment will be removed by hand methods unless accumulation is so extensive that mechanized equipment is required.

Leak Detection and Leachate Collection Systems

Leachate

The leak detection and leachate collection systems contain residual water from precipitation and construction activities. It is anticipated that it will take several years to remove residual water. The collection sumps are small and recharge to the sumps is slow because of the relatively flat slopes used in the construction of the vault. The sumps will be pumped a minimum of three times per quarter until all liquid has been removed. The liquid will be contained in drums, and stored in accordance with 6 CCR 1007-3, 262.30 through 262.34

EVRAZ must record all removal of leachate in the operations record. After residual water has been removed, EVRAZ must notify the Director, Hazardous Materials and Waste Management Division, of any new leachate detected in the leak detection system within seven (7) days.

EVRAZ shall reactivate the alarm system after the construction precipitation water has been removed from the leak detection and leachate collection systems.

Station B Leachate Procedures

Station B landfill has two leachate collection sumps which are pumped a minimum of three times per quarter to remove leachate. Submersible pumps are already installed in the two collection sumps. The following procedures are used for leachate pumping and disposal:

- Personnel assigned to leachate pumping activities will review safety procedures and gather necessary supplies, equipment, materials, personal protective equipment (PPE), etc. to pump leachate in a safe and efficient manner.

- Department of Transportation (DOT) approved 55-gallon closed head drums will be used for leachate collection. Drums will be appropriately marked with DOT and Environmental Protection Agency (EPA) required markings after the first leachate material is placed in the drum.

- Personnel will take extra precaution when assembling and disassembling the fill hose from the drums to the submersible pumping system at each leachate collection sump. Once the sumps are emptied, the fill hose will be removed from the pumping system and drained to the leachate drum. Care will be given to prevent and/or contain any dripping, spillage, and leakage during the pumping process. Should a leachate release occur, immediate response and cleanup actions will be initiated.

- The filled leachate drums will be immediately taken to EVRAZ's hazardous waste 90-day accumulation point. Once there, the drums will be assigned a drum identification number, weighed, and placed in an appropriate location within the accumulation point. Accumulation of the leachate drums will not exceed 90 days.

- Disposal of the leachate will be in accordance with applicable Colorado Department of Public Health and Environment (CDPHE) and EPA regulations.

Maintenance and repair procedures on the pumping and monitoring equipment for the leachate collection sumps is described in the following:

- Maintenance and repair will be done by properly trained personnel in the hazards associated with Station B. EVRAZ personnel will perform maintenance and repair activities. Should an independent contractor perform the necessary repairs, contractor personnel will be trained in Station B hazards.

- Monitoring equipment will be repaired or replaced depending upon the severity of the damage to the equipment.

- The sump's pumping systems will be repaired or replaced depending upon the severity of the damage to the pumping system.

Table 1a – Specifications for Slag

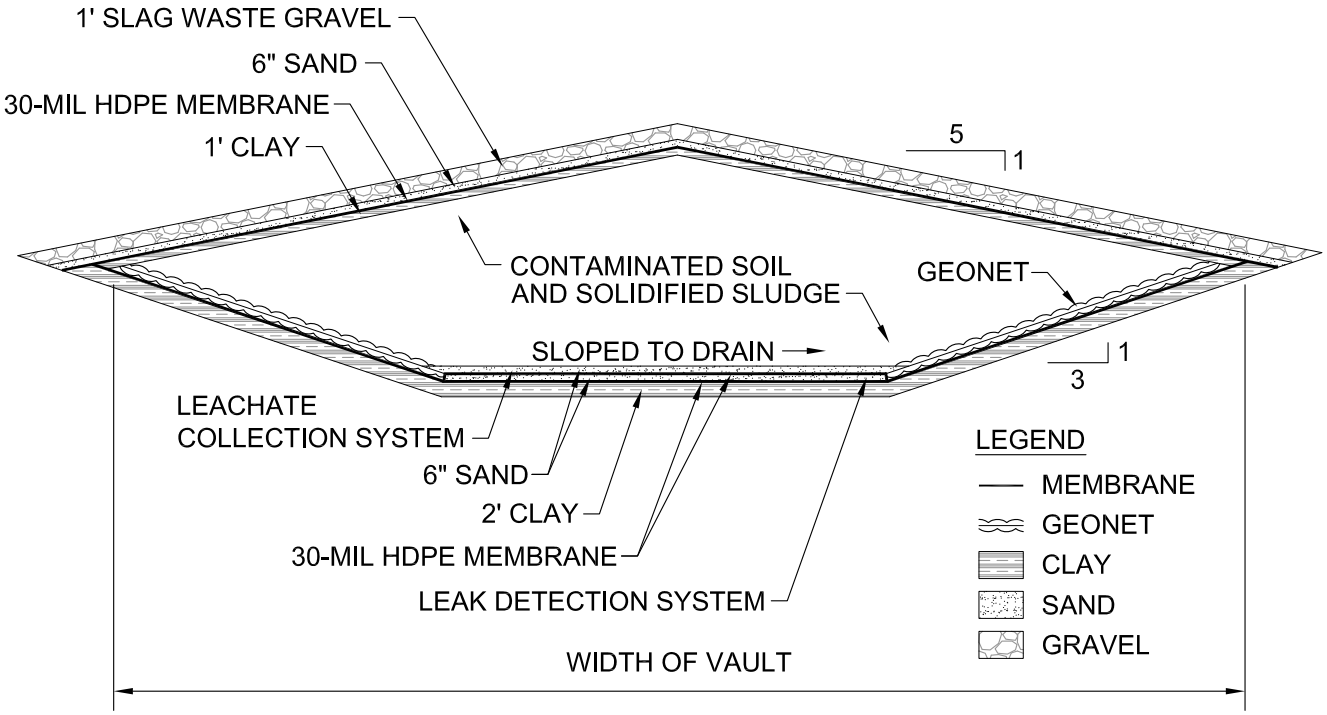
Sieve Designation	% by Weight Passing
6”	100
3”	50-100
1”	15-50
#4	0-15
#200	0-5

Specific Gravity ≥3.0
L.A. Abrasion <40% at 1,000 Revolutions
Sodium Sulfate Soundness Loss<12%

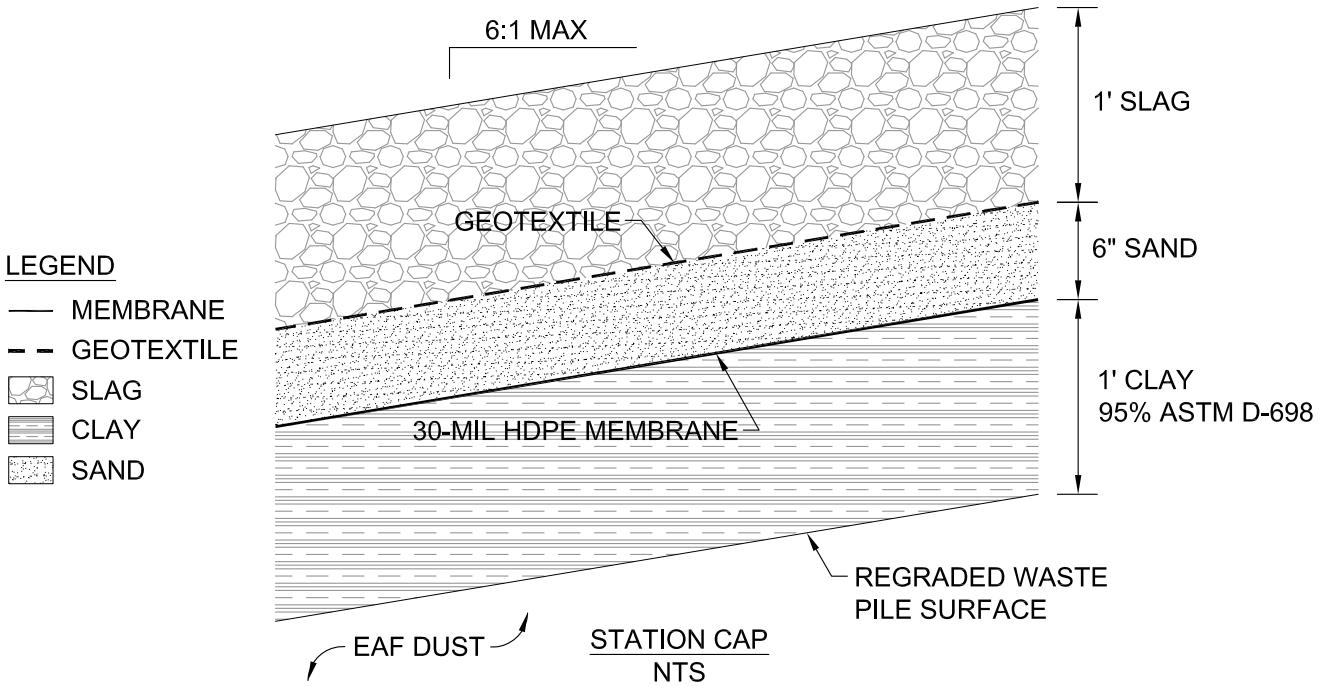
Table 1b- Specifications for Rip Rap

Sieve Designation	% by Weight Passing
18”	100
12”	50-100
8”	0-15
#4	0-5

Specific Gravity ≥32.5
L.A. Abrasion <40% at 1,000 Revolutions
Sodium Sulfate Soundness Loss<12



TYPICAL VAULT CROSS SECTION
NTS



STATION CAP
NTS

Pinyon Environmental, Inc.
Corporate Headquarters
9100 West Jewell Avenue, Suite 200 Lakewood, CO 80232
TEL 303 980 5200 FAX 303 980 0089
www.pinyon-env.com

DETAILS

Vault and Cap Details

-

-

Drawn By: MF	Figure 1
Reviewed By: JM	Date: November 20, 2013

ATTACHMENT 10

POST-CLOSURE COST ESTIMATE

UPDATED POST-CLOSURE COST ESTIMATE TO BE SUBMITTED

IN ACCORDANCE WITH SCHEDULE

TABLE 2 DETAILED POST CLOSURE COST ESTIMATE
Post Closure Monitoring At Stations B and E
Date:

Description	17 Amount to be spent in 2011	18 Amount to be spent in 2012	19 Amount to be spent in 2013	20 Amount to be spent in 2014	21 Amount to be spent in 2015	22 Amount to be spent in 2016	Totals for All Years
Groundwater Monitoring Plan	$0	$0	$0	$0	$0	$0	$1,700
Monitoring Well Plan Development	$0	$0	$0	$0	$0	$0	$800
Monitoring Well Installation	$0	$0	$0	$0	$0	$0	$1,500
Groundwater Sampling at Station E	$3,400	$3,400	$3,400	$3,400	$3,400	$3,400	$71,400
Groundwater Sampling at Station B	$4,600	$4,600	$4,600	$4,600	$4,600	$4,600	$96,600
Appendix IX analysis at Station B	$11,743	$0	$0	$0	$0	$11,743	$56,228
Statistical Analysis of Groundwater Data (first time)	$0	$0	$0	$0	$0	$0	$4,000
Statistical Analysis of Groundwater Data (subsequent times)	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$82,000
Leachate Collection	$9,800	$9,800	$9,800	$9,800	$9,800	$9,800	$205,800
Maintenance	$6,500	$6,500	$6,500	$6,500	$6,500	$6,500	$136,500
TOTALS	$40,043	$28,300	$28,300	$28,300	$28,300	$40,043	$656,528

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ATTACHMENT 11

GROUNDWATER MONITORING WELL INSTALLATION AND ABANDONMENT PLAN

Future groundwater monitoring well installation and/or abandonment at Stations B and E and on the EVRAZ Facility shall be completed in accordance with accepted industry standards, and in compliance with Colorado Division of Water Resources regulations and guidance.

ATTACHMENT 12

GROUNDWATER MONITORING, SAMPLING AND ANALYSIS, AND STATISTICAL ANALYSIS PLAN

Ground water monitoring at these units is conducted in accordance with 6 CCR 1007-3, Section 264.97, General ground-water monitoring requirements, and the facility's Ground Water Monitoring, Sampling and Analysis, and Statistical Analysis Plans as approved by CDPHE and any CDPHE-approved modifications.

A representative groundwater monitoring, sampling and analysis, and statistical analysis plan for Stations B and E, approved by CDPHE, is included by reference as the November 4, 2015, ***Results of Post Closure Groundwater Monitoring,*** Hazardous Land Disposal Units Station B and Station E summary report is attached in part. The sample groundwater monitoring, sampling and analysis, and statistical analysis plan included in the report can be accessed in its entirety from the e-files of the CDPHE HMWMD Records Center, B2 4300 Cherry Creek Drive South, Denver, CO 80246 by contacting Records Center staff at 303-692-3331.

Pinyon Environmental, Inc.

Corporate Headquarters
9100 West Jewell Avenue, Suite 200 Lakewood, CO 80232
TEL 303 980 5200 FAX 303 980 0089
www.pinyon-env.com

November 4, 2015

Results of Post Closure Groundwater Monitoring

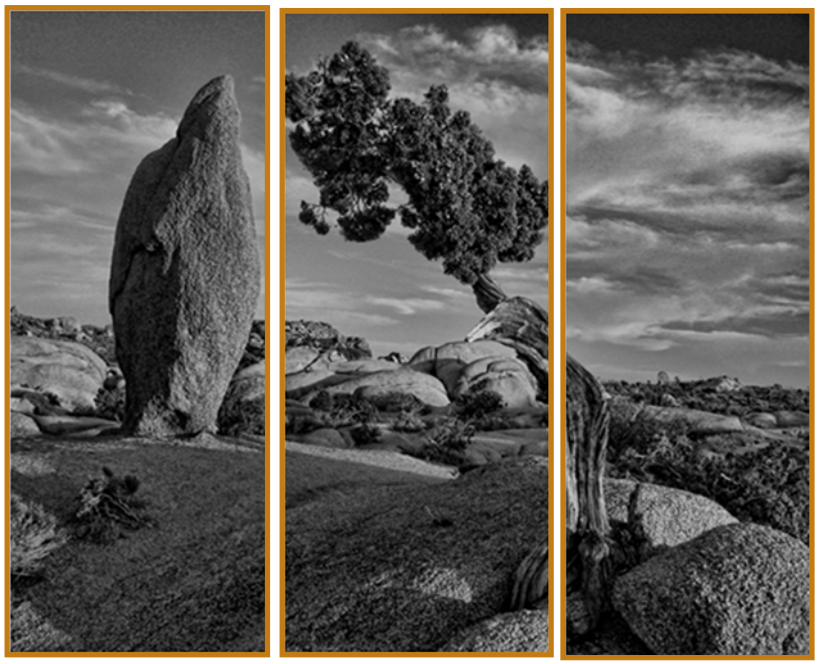
Hazardous Land Disposal Units
Station B and Station E
EVRAZ - Pueblo

Prepared For:

EVRAZ - Pueblo
2100 South Freeway
Pueblo, Colorado

Pinyon Project No.:

1/96-086-02



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Appendix A Monitoring Wells Inspection Form
Appendix B Laboratory Analytical Reports
Appendix C Statistical Analysis: Time-Series Plots
Appendix D Statistical Analysis: Outliers
Appendix E Statistical Analysis: Temporal Trend
Appendix F Statistical Analysis: Background/Compliance Well Comparisons

1. Introduction

Pinyon Environmental, Inc. (Pinyon), on behalf of EVRAZ – Pueblo (EVRAZ, a.k.a. CF&I Steel), has completed the 39th semi-annual Post-Closure Groundwater Monitoring event at the EVRAZ Hazardous Waste Land Disposal Units, Station B and Station E, in Pueblo, Colorado (Figure 1). This monitoring was conducted in accordance with the post-closure requirements of EVRAZ's State Resource Conservation and Recovery Act (RCRA) Permit Number 95-09-29-01 (the "Permit"), which was issued by the Colorado Department of Public Health and Environment (CDPHE) on September 29, 1995 (CDPHE, 1995). The next monitoring event is scheduled for March 2016.

Station B was closed in January 1992. The unit is constructed with a RCRA-engineered bottom liner and cap. Prior to the engineered closure, constituents were detected in monitoring wells associated with this unit. The post-closure monitoring at this unit is considered Corrective Action Monitoring, which is intended to confirm the concentrations of detected constituents continue to decrease with time.

Electric Arc Furnace Dust and a characteristic lead waste were disposed of in Station E. The basis for listing electric arc furnace dust are the hazardous constituents hexavalent chromium, lead, and cadmium. Station E was closed in December 1989. This unit is constructed with a RCRA-engineered cap. Monitoring at this unit is considered a Detection Monitoring Program, which is intended to monitor for the occurrence of any future releases.

1.1 Corrective Action Monitoring at Station B

Post-closure groundwater monitoring at Station B is considered a Corrective Action Monitoring Program, in accordance with 6 Code of Colorado Regulations (CCR) 1007-3, Section 264.100(d) (CCR, 2004). Detectable levels of several volatile organic compounds (VOCs) have previously been reported in samples from groundwater monitoring wells associated with Station B (Figure 2). Monitoring at the site has been conducted since 1987. The Corrective Action Monitoring at Station B is intended to confirm that the concentrations continue to decrease with time.

Six well locations are included in the Station B groundwater monitoring program (Figure 2). The most recent issuance of the Post-Closure Part B permit occurred on October 30, 2005 and requires semi-annual (every six months) groundwater sampling through October 30, 2015. The March 2006 event was the first semi-annual event conducted during this permit period. Semi-annual groundwater samples are analyzed for the following Constituents of Concern (COCs):

- Target Analyte List VOCs
  - Trichloroethene (TCE)
  - 1,1-dichloroethene (1,1-DCE)
  - Cis-1,2-dichloroethene (cDCE)
  - 1,1-dichloroethane (DCA)
  - 1,1,1-trichloroethane (TCA)
  - Toluene
  - Chloromethane
  - Benzene
  - Ethylbenzene
- pH
- Temperature
- Conductivity

Sample result statistical trends are also evaluated in accordance with the statistical analysis protocol outlined in the Permit.

In accordance with the Post-Closure permit, Appendix IX constituents were previously sampled every five years. The most recent Appendix IX sampling was conducted in September 2011. During the September 2011 sampling event, several RCRA Appendix IX constituents were detected above the laboratory detection limit. Therefore, a second analysis of the detected RCRA Appendix IX constituents was completed during the March 2012 sampling event, and several of the compounds were again detected. As a result, four Appendix IX constituents (Appendix IX TAL) have been added to the semi-annual list including:

- 1,4-Dioxane
- Antimony
- Lead
- Pyrene

In the September 2011 Post-Closure Groundwater Monitoring Report submitted to CDPHE on December 21, 2011, Pinyon recommended revising the existing permit to exclude the 5-year Appendix IX constituent sampling. As a result, CDPHE approved the reduction of the five-year Appendix IX constituents list to include only metals found on the Appendix IX list. In addition, CDPHE added vinyl chloride to the semi-annual constituent list, because it was detected during the September 2011 sampling event and is a degradation product of the chemicals of concern at Station B.

From 2013 through 2014, cyanide levels have been either non-detect or around 5-6 ug/L, far below the cyanide MCL of 200ug/L. A request to remove cyanide from the March 2015 sampling event and future events was granted by CDPHE in an email sent on January 28, 2015.

1.2 Detection Monitoring at Station E

The Station E Detection Monitoring Program includes one background well (MW-1) and three down-gradient compliance wells (MW-3A, MW-87-2, MW-96-1) (Figure 2). Groundwater samples were collected from the four detection monitoring wells on a semi-annual basis (every six months) for 10 years after the first calendar year following issuance of the Post-Closure Part B Permit. The September 1996 event was the first semi-annual event conducted. The Permit was renewed in September 2005, and includes provisions for continued monitoring at Station E, on a semi-annual frequency, for 10 more years (through 2015). Additionally, groundwater elevations are measured in all monitoring wells on a semi-annual basis, in order to evaluate the rate and direction of groundwater flow. Semi-annual groundwater samples are analyzed for:

- Cadmium
- Lead
- pH
- Temperature
- Conductivity

The Analytical results of downgradient samples are compared with the results from the background well, in accordance with the statistical analysis protocol outlined in the Permit.

2. Techniques and Procedures

Pinyon conducted the second groundwater monitoring event for 2015 on September 9, 2015. With the exceptions noted below, the techniques and procedures followed were in accordance with the Post-Closure Groundwater Monitoring Program, as outlined in the "Monitoring Plan" (Stewart, 1996). In the September 2011 Post-Closure Groundwater Monitoring Report, Pinyon proposed to conduct future sampling events using low-flow sampling technique with a submersible bladder pump. CDPHE subsequently approved using functionally-equivalent low-flow sampling equipment and technique in place of the previous bailer method. Specific techniques and procedures are described below.

2.1 Sample Collection

Upon arrival at each well location, the condition of the well was inspected, and the applicable information was entered on a monitoring well inspection form. This information is summarized in Section 3.1. The order in which the wells were sampled was in accordance with the order outlined in the Monitoring Plan.

Prior to sampling, Pinyon measured the depth-to-groundwater, and then sampled the groundwater monitoring wells using a peristaltic pump and low-flow methods. During purging of the wells, Pinyon recorded geochemical indicator data, including: pH, conductivity, and temperature using an in-line groundwater quality meter (YSI Sonde). Once the geochemical parameters had stabilized and a minimum of 10 minutes had elapsed, a sample was collected in laboratory-supplied containers, labeled, placed on ice, and submitted to Environmental Science Corporation (ESC), in Mount Juliet, Tennessee, under Pinyon chain-of-custody procedures for analysis of the TAL compounds (Table 2-1). All purge water was containerized in a 55-gallon drum.

The pump, electric water level meter, and water quality meter were decontaminated prior to the start of sampling and between each well. The equipment was decontaminated by rinsing with clean water, washing with a detergent solution of Alconox and water, followed by a distilled water rinse. The decontamination water was containerized and placed in a 55-gallon drum with the purge water. Following completion of sampling activities, the 55-gallon drum containing the purge and decontamination water was transported to the EVRAZ 90-day RCRA hazardous waste accumulation point.

Table 2-1. Laboratory Analyses Performed

Parameter	Method	Station B	Station E
VOC TAL	EPA 8260	●	
1,1,1-Trichloroethane		●	
1,1-Dichloroethane		●	
1,1-Dichloroethene		●	
Barium		●	
Benzene		●	
Chloromethane		●	
cis-1,2-Dichloroethene		●	
Cyanide		●	
Ethylbenzene		●	
Nickel		●	
Selenium		●	
Thallium		●	
Toluene		●	
Trichloroethene		●	
Vinyl chloride		●	
Appendix IX COCs	See Appendix B		
1,4-Dioxane		●	●
Antimony		●	
Lead		●	
Pyrene		●	
pH	Field	●	●
Temperature	Field	●	●
Conductivity	Field	●	●
Dissolved Lead	EPA 239.2	●	●
Dissolved Cadmium	EPA 213.2	●	●

Notes:
September 9, 2015 Sampling Event
EPA – Environmental Protection Agency
COCs – Constituents of Concern

2.2 Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) for the event was in accordance with the monitoring plan and the proposal for the project (Pinyon, 1996b), and included the collection of trip blanks and field replicates. The QA/QC samples collected are summarized on Table 2-2. The trip blanks were supplied by the laboratory.

Table 2-2. Summary of QA/QC Samples

Sample	Date	Type	Location	Analyses
87-3D	9/9/15	Trip Blank	Station B	VOC TALs
87-2D	9/9/15	Trip Blank	Station E	VOC TALs

Notes:
September 9, 2015 Sampling Event
VOC Volatile Organic Compounds
TAL Target Analyte List
COCs Constituents of Concern
Pb Lead
Cd Cadmium

3. Results

3.1 Condition of Wells

At the time of sampling in September 2015, all of the wells were intact and undamaged (Table 3-1; Appendix A). Well MW-87-8 was not locked upon arrival. A locking j-plug will be investigated as a solution. The keyed lock for 96-1 was replaced with a combination lock. Sediment accumulation was not observed in any well.

Table 3-1. Summary of Monitoring Well Observations

Well	Locked Upon Arrival	Damage to Cap or Riser	Damage to Surface Seal	Blockage Within Well	Unusual Pumping Conditions	Sediment
MW-1	Yes	No	No	No	No	None observed
MW-2A	Yes	No	No	No	No	None observed
MW-3	Yes	No	No	No	No	None observed
MW-3A	Yes	No	No	No	No	None observed
MW-87-2	Yes	No	No	No	No	None observed
MW-87-3	Yes	No	No	No	No	None observed
MW-87-5	Yes	No	No	No	No	None observed
MW-87-7	Yes	No	No	No	No	None observed
MW-87-8	No	No	No	No	No	None observed
MW-96-1	Yes	No	No	No	No	None observed

3.2 Rate and Direction of Groundwater Flow

The depth-to-groundwater ranged from 6.14 to 19.94 feet below the top of casing during the September 2015 monitoring event (Table 3-2). When compared to the March 2015 levels, the difference in the levels was 0.66 feet higher in well MW-1 and 0.50 feet higher in MW-87-8. The elevation data was used to construct a potentiometric surface map for Stations B and E (Figure 2), which indicates an overall groundwater flow direction towards the east-northeast, with a hydraulic gradient of 0.005 feet/foot between MW-1 and MW-87-8. The hydraulic gradient is consistent with previous monitoring events; however, the groundwater levels were higher than the March 2015 levels.

The hydraulic conductivity at the site was previously determined using in-situ tests in the monitoring wells (Chen, 1987). The results of these tests indicated that the hydraulic conductivity ranges from 3.29 feet/day (1.2 x 10-3 centimeters per second (cm/sec)) to 408 feet per day (1.4 x 10-1 cm/sec).

Table 3-2. Groundwater Elevations

Well	Top of Casing Elevation(1)	Depth to Water(2)	Water Elevation
MW 1	4852.75	19.94	4832.81
MW 2A	4830.43	14.34	4816.09
MW 3	4826.75	12.90	4813.85
MW 3A	4829.30	17.74	4811.56
MW 87-2	4826.29	17.20	4809.09
MW 87-3	4825.80	14.65	4811.15
MW 87-5	4828.50	13.45	4815.05
MW 87-7	4831.03	14.63	4816.40
MW 87-8	4814.41	6.14	4808.27
MW 96-1	4827.37	16.57	4810.80

Notes:
September 9, 2015 Sampling Event
All measurements in feet.
(1) Feet above mean sea level, as surveyed by EVRAZ.
(2) Measured from top of casing.

3.3 Analytical Results – Station B

The analytical data for the Station B standard semi-annual compounds are summarized in Table 3-3. The analytical report is included in Appendix B.

Table 3-3. Semi-Annual Analytical Results-Station B

Analyte	MW-2A	MW-3	MW-87-3	MW-87-3D	MW-87-5	MW-87-7	MW-87-8	MCL
Semi-Annual Parameters (ug/L)								
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**200**
1,1-Dichloroethane	<1.0	2.4	2.7	2.7	18.1	1.8	<1.0	**NP**
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**7**
Barium	11.1	15.1	14.8	15.0	13.4	9.4	10.4	**2000**
Benzene	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	**5**
Chloromethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	**3**
cis-1,2-Dichloroethene	<1.0	8.3	5.8	5.8	3.6	<1.0	<1.0	**70**
Conductivity(µΩ/cm)	2,819	2,924	2,781	2,781	1,761	4,350	2,827	**NP**
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**700**
Nickel	20.9	<10.0	<10.0	<10.0	<10.0	32.3	<10.0	**100**
pH (standard units)	6.83	6.67	6.92	6.92	6.95	6.70	6.81	**6.5-8.5**
Selenium	**403**	**238**	**476**	**474**	**181**	<10.0	**867**	**50**
Temperature (°C)	24.0	24.3	25.7	25.7	28.0	22.6	24.2	**NP**
Thallium	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**2**
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**1,000**
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**5**
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2**
Appendix IX Constituents (ug/L)								
1,4-Dioxane	**84.3**	**49.7**	**41.7**	**49.4**	**211**	**936**	**12.7**	**0.35**
Antimony	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**6**
Lead	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**50**
Pyrene	0.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**2,100**

Notes:
September 9, 2015 Sampling Event
No duplicate was collected.
µg/L - All concentrations in micrograms per liter, except as noted.
Concentrations greater than the MCL have been ***bolded****.*
< *Less than laboratory detection limits*
°C *Degrees Celsius*
MCL Maximum Contaminant Level
NP Not Published
µS/cm microsiemens per centimeter
Source: Appendix B

In general, the concentrations of the semi-annual compounds at Station B were very similar to the March 2015 results (Appendix B). Most of the semi-annual compounds were detected at concentrations below the Colorado and EPA maximum contaminant levels (MCLs) and the Permit requirements with the following exceptions:

- Dissolved Selenium was detected above the MCLs in all Station B monitoring wells except MW-87-7; however, this compound is considered naturally occurring (Table 3-3)

- 1,4-Dioxane was detected at concentrations above MCL

3.4 Free Product Response – Station B

Free-phase petroleum product was observed in MW-2A during the March 2004 sampling event (Pinyon, 2004). The product appeared to be motor or gear oil. Recovery actions were initiated to remove the product from the well, via bailing the product, and swabbing the interior of the well casing with oil-absorbent pads (Pinyon, 2004). To manage the oil sheen remaining in the well after bailing was no longer effective, oil absorbent booms were (and continue to be) hung at the groundwater interface in monitoring well MW-2A.

A sample of the free-phase oil collected from MW-2A was submitted for identification and age approximation (Pinyon, 2004). Comparison analysis indicated that the oil was a mixture of motor oil, hydraulic oil, and gear oil. The chemist performing the analysis estimated the age to be less than one year old from the date of the analysis, based on weathering characteristics (Pinyon, 2006). The source of this product is therefore unknown; the last placement of material in Station B occurred over 20 years ago. It is believed that the monitoring well was tampered with and that the oil product was poured down the well casing (Pinyon, 2006).

Since the initial observation of oil in monitoring well MW-2A, in March 2004, the amount of observed oil in the well has reduced to a sheen on the surface of water. During the September 2015 sampling event, no staining or smell was observed on the oil absorbent boom in monitoring well MW-2A.

Based on a review of the existing data, the post-closure monitoring plan, and the physical characteristics of the Site, Pinyon has performed an evaluation of the free product characteristics and response, and offers the following information:

- Based on the routine inspection and semi-annual changing of oil-absorbent booms by EVRAZ, the presence of the thick layer of free product has reduced to an oil sheen. A slight oil sheen is consistently observed on the surface of the water. This demonstrates the amount of product in the well has decreased over the past six years. The sheen may be disappearing as no staining or odor was noticed on the boom during the sampling event on September 9, 2015.

- The presence of small amounts of residual oil has not affected the analytical results of groundwater samples collected from monitoring well MW-2A. Based on ongoing statistical analysis (Section 4.1), there has been neither an abnormal increase nor decrease in VOC concentrations, which illustrates that the presence of oil in the well has not affected the concentration of the constituents of concern.

- The current operations of maintaining absorbent material in the well, and purging the well before sampling, has seemed to control any adverse effects on the sampling program.

3.5 Analytical Results – Station E

The analytical data for the Station E semi-annual compounds are summarized in Table 3-4. The analytical report is included in Appendix B.

Table 3-4. Analytical Results-Station E Semi-Annual Parameters

Analyte (µg/L)	MW-1	MW-3A	MW-87-2	MW-87-2D	MW-96-1	MCL
1,4-Dioxane	**<0.597**	**<0.597**	**4.77**	**5.08**	**10.7**	**0.35**
Dissolved Lead	<5.0	<5.0	<5.0	<5.0	<5.0	**50**
Dissolved Cadmium	<2.0	<2.0	<2.0	<2.0	<2.0	**5**
pH (standard units)	6.96	6.97	6.83	6.83	6.92	**6.5-8.5**
Temperature (°C)	22.5	33.3	24.3	24.3	23.4	**NP**
Conductivity(µΩ/cm)	1,804	2,535	2,107	2,107	1,613	**NP**

Notes:
September 9, 2015 Sampling Event
No duplicate was collected.
µg/L - All concentrations in micrograms per liter, except as noted.
°C *Degrees Celsius*
MCL *Maximum Contaminant Level*
µΩ/cm *micro-ohms per centimeter*
< *Less than laboratory detection limits*
NA *Not Available*
NP *Not Published*
Source: *Appendix B*

Dissolved metal analytes were not detected at or above MCLs in any of the samples submitted. Additionally, 1,4-Dioxane, which was submitted for analysis in Station E wells to help delineate it's lateral extents, was detected at concentrations above the MCL in MW-87-2 and MW-96-1 and was not detected at a concentration above the laboratory detection limit in MW-1 and MW-3A. It should be noted that MW-1 is upgradient of the slag dump and that MW-3A is in between the Station B wells and the remainder of the Station E wells.

3.6 Analytical Results – QA/QC Samples

Duplicate samples were collected from monitoring wells MW-87-3 (Station B) and MW-87-2 (Station E). The concentrations of the other analytes detected in the duplicate pair were all within the acceptable range (Tables 3-3 and 3-4).

4. Statistical Analysis

4.1 Station B

In accordance with Section IV.G of the Permit, a statistical analysis of groundwater quality is to be performed within 60 days after completion of each sampling event. Pinyon performed the statistical analysis using ProUCL Software (Version 4.1.01) created by Lockheed Martin and distributed by the Environmental Protection Agency (EPA). The use of Sanitas Software (Version 7.5) was originally specified in the Monitoring Plan; however, ProUCL performs the same statistical analyses as Sanitas and has been updated to reflect recent EPA guidance on the statistical analysis of groundwater at RCRA facilities (EPA, 2009). Prior to performing the first statistical analysis in October 1996, a computer database was produced by entering historical analytical data obtained since July 1987. Due to a lack of information regarding detection limits for many compounds, the historical data from December 1987 was not included in the database. The analytical data from the September 2015 event was added to the existing database, and the statistical analysis was completed on October 27, 2015.

First, a time-series plot was produced for each analyte (Appendix C). Next, an outlier test was performed for each analyte at each well (Appendix D). The outlier data was reviewed to determine whether the outliers were the result of poor field or laboratory methodology, or erroneous transcription data. In most cases, the outliers were not due to transcription errors but were representative of actual historical data. EPA guidance directs that statistical outliers should not be removed or altered unless independent evidence of an error exists; therefore, outliers identified as representative of actual historical data were not removed from the database.

The post-closure monitoring at Station B is considered Corrective Action Monitoring, which is intended to confirm that the concentrations of detected constituents continue to decrease with time. Following review of the data for statistical outliers and correction of the database, the following statistical tests were performed to confirm that the concentrations of detected constituents continue to decrease with time:

- **Times Series Plots** – Time series plots were produced to evaluate the data for seasonality. None of the plots exhibited seasonality (Appendix C).

- **Seasonality using the Kruskal-Wallis test** - In past reports, the data was evaluated for seasonality using the Kruskal-Wallis test at a 95 percent confidence level; however, the time series plots do not exhibit seasonality. Therefore, in accordance with the new EPA guidance (EPA, 2009), additional seasonal analysis using the Kruskal-Wallis test was not performed.

- **Outlier Test** – An outlier test was performed for each analyte at each well to determine whether any outliers exist and if those outliers were the result of poor field or laboratory methodology, or erroneous transcription data. Statistical outliers were identified in the historical data by ProUCL (Appendix D). According to EPA Protocol, since the outliers did not occur due to sampling errors they were left in the dataset for the additional analyses (EPA, 2009).

- **Theil-Sen Slope Estimation –** The Theil-Sen slope estimation method was applied to estimate the true slope of each data series; this nonparametric procedure indicates whether constituent trends are increasing (positive slope), decreasing (negative slope), or constant (zero slope). The ProUCL software is configured to run the time series plots in conjunction with the Theil-Sen slope method; therefore, the results of both methods are plotted on the same printout (Appendix C). The results of the Theil-Sen slope estimation method were as follows:

- For eight of the TAL VOCs the slopes of the constituents for the wells sampled were either zero (indicating constant values) or negative (indicating decreasing values) and for 1,1-dichloroethane the Theil-Sen slope was positive for MW-87-5 (Appendix C).

- For the four Appendix IX constituents the slopes were negative or zero for the September 2015 sampling event. It should be noted that Pyrene and 1,4-Dioxane had positive Theil-Sen slopes during the March 2015 sampling event and reverted back to zero or negative slopes for the September 2015 sampling event.

- **Mann-Kendall Trend Tests -** The Mann-Kendal test for temporal trend was used to determine whether a significant temporal trend exists. Either a significant decreasing trend or insufficient evidence for a significant trend exists for the nine VOCs, Appendix IX Constituents, pH, Temperature, and Conductance at each well (Appendix E). There were no significant increasing trends for any of the wells.

4.2 Station E

The time-series data plots and statistical outlier tests were performed for all Station E analytes using the same methods described above (Appendices C and D).

Similar to Station B, seasonality using the Kruskal-Wallis test at a 95 percent confidence level was not conducted because the time series plots did not exhibit seasonality. This decision is in accordance with the EPA guidance on the matter (EPA, 2009).

Monitoring at Station E is considered a Detection Monitoring Program, which is intended to monitor for the occurrence of any future releases. To accomplish this, a statistical analysis is performed to determine whether there is a statistically significant increase over background values for each semi-annual parameter. A statistical analysis was performed for all Station E analytes, except for field temperature and pH, as required (Appendix F).

The concentrations of each Station E analyte were analyzed using a prediction interval method (Appendix F). Prior to applying a prediction interval procedure, histograms and QQ-Plots with Shapiro-Wilks statistics were run using ProUCL to evaluate the distribution of the data for normality, and then to select the preferred method for prediction interval analysis.

- **Times Series Plots** – Time series plots were produced to evaluate the data for seasonality. None of the plots exhibited seasonality (Appendix C).

- **Outlier Test** – An outlier test was performed for each analyte at each well to determine whether any outliers exist and if those outliers were the result of poor field or laboratory methodology, or erroneous transcription data. Statistical outliers were identified in the historical analytical results by ProUCL (Appendix D). According to EPA Protocol, since the outliers did not occur due to sampling errors they were left in the dataset for the additional analyses (EPA, 2009).

- **Prediction Interval Test** – A prediction interval test is performed to determine whether there is a statistically significant increase over background values for cadmium, lead, and conductance, as required by the permit (Appendix F).

    - **Cadmium** - The results of the tests for dissolved cadmium indicated that a non-parametric approach was the preferred method for analysis of the data, because there were either greater than 50 percent non-detects, or the data were not normally distributed. The results for

dissolved cadmium were below the prediction limit in the Station E monitoring wells. This indicates that there is no evidence of an increase in dissolved cadmium concentration at these wells.

- **Lead** – Again, this analysis was conducted after the historical data for lead had been corrected for unit errors, as discussed in section 4.1. The results of the tests for dissolved lead indicated that a non-parametric approach was the preferred method for analysis of the data, because there were either greater than 50 percent non-detects, or the data were not normally distributed. The results for dissolved lead were below the prediction limit in the Station E monitoring wells. This indicates that there is no evidence of an increase in dissolved lead concentration at these wells.

- **Conductance** - The results of the tests for conductivity indicated that a parametric approach was the preferred method for analysis of the data because the data was normally distributed at each well except MW-96-1. At MW-96-1, the results of the tests for conductivity indicated that a non-parametric approach was the preferred method for analysis of the data, because there were either greater than 50 percent non-detects, or the data were not normally distributed. The results of these test indicated that in each case, the results for conductivity were below the prediction limit in the Station E monitoring wells. This indicates that there is no evidence of an increase in conductivity at these wells.

5. Summary and Conclusions

Pinyon has completed the 39th semi-annual Post-Closure Groundwater Monitoring event at the EVRAZ Hazardous Waste Land Disposal Units, Station B and Station E, in Pueblo, Colorado. Samples were collected from the Station B and Station E wells on September 9, 2015. The samples were analyzed for the compounds required by the facility Permit. Pinyon completed the statistical analysis of the analytical results on October 27, 2015. The following observations were made with respect to the sampling data:

- Upon observation of the wells during the September 2015 sampling event, nine of the 10 wells were in good condition. Well MW-87-8 was not locked. A locking j-plug and lock will be installed in the next sampling event.
- Groundwater depths were higher than in March 2015 which could be attributed to the large amount of rain in the Spring of 2015.
- With respect to the free-phase petroleum, which was identified in monitoring well MW-2A in 2004, the continued use of absorbent booms in monitoring well MW-2A is an adequate response to the oil sheen in the well. The sheen may be disappearing as no staining or odor was noticed on the boom during this sampling event.
- In general, the concentrations of standard semi-annual compounds at Station B were very similar to the March 2015 results, with a few exceptions (Section 3.0). During the September 2015 sampling event, of the four Appendix IX constituents, only 1,4-dioxane was detected at concentrations above MCL.
- Longer-term trends were analyzed using statistical methods. The results of the statistical analysis of the semi-annual compounds from Station B wells confirmed that concentrations are decreasing or stable for the eight of the nine VOCs. The Theil-Sen slope was positive for 1,1-dichloroethane in MW-87-5; however, this compound has no maximum contaminant level and this is the first time in recent years that this has had a positive slope. Furthermore, it did not have a statistically significant increasing Mann-Kendall trend. It will be monitored closely during the next sampling round in March 2016.
- In September of 2014 and March of 2015, 1,4-dioxane was observed to have increased Theil-Sen slopes in MW-3. Due to that it appeared that a release had occurred from the Station B liner. Samples were collected from the Station E wells and analyzed for 1,4-dioaxane to help delineate the lateral extent of 1,4-dioxane throughout the area. It was detected above the MCL in two of the four Station E wells, MW-87-2 and MW-96-1. Those two wells are the furthest down gradient wells to the north of the Station B and Station E wells. 1,4-Dioxane was not detected in MW-3A which is in between the two wells just mentioned and the Station B wells to the south, therefore there may be a series of finger-like plumes spreading from the slag pile and moving northeast. Further investigation is warranted and Pinyon is in the process of creating a work plan to fully delineate 1,4-Dioxane. It should be noted though that concentrations of 1,4-Dioxane and Pyrene reverted to having no trend or negative trends in the Station B wells sampled during the September 2015 sampling event. Pinyon is in the process of developing a work plan to more fully characterize the source and extent of impacts of 1,4-Dioxane and additional investigations will be conducted pending CDPHE approval.
- At Station E, all semi-annual compounds were detected below MCLs, consistent with previous sampling results. Semi-annual sampling will continue as required by the monitoring program. Station E is in compliance with the existing Permit.
- The next bi-annual monitoring event will be scheduled for March 2016.

ATTACHMENT 13

WASTE INVENTORY

The waste inventory is included by reference and is available in the files at CDPHE HMWMD Records Center, B2 4300 Cherry Creek Drive South, Denver, CO 80246 and can be accessed by calling 303-692-3331.

ATTACHMENT 14

CORRECTIVE ACTION SCHEDULE

ATTACHMENT 14
SCHEDULE OF COMPLIANCE
EVRAZ ROCKY MOUNTAIN STEEL
PUEBLO, COLORADO

Facility Submission Requirements	**Due Date**
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 or as approved by CDPHE
SWMU Assessment Report	forty five (45) calendar days after completion of implementation of SWMU Assessment Plan or as approved by CDPHE
RFI Work Plan for Newly Identified SWMU's or Releases	as determined
Revised RFI Work Plan	as determined
Implement RFI Work Plan	ninety (90) calendar days after Director approval or as approved by CDPHE
RFI Report	ninety (90) calendar after completion of the field investigations of the RFI or as approved by CDPHE
Supplemental or Revised RFI Report	as determined
Mail RFI Summaries to Mailing List	fifteen (15) calendar days After Director Approval of No Further Action Determination
CMS Plan	ninety (90) calendar days after notification of requirement to perform CMS or as approved by CDPHE
Revised CMS Plan	as determined
Implement CMS Plan	ninety (90) calendar days after Director approval or as approved by CDPHE
CMS Report	ninety (90) calendar days after completion of implementation of CMS plan or as approved by CDPHE
Revised CMS Report	as determined

ATTACHMENT 14
CORRECTIVE ACTION SCHEDULE
EVRAZ ROCKY MOUNTAIN STEEL
PUEBLO, COLORADO

SWMU NO	DESCRIPTION	YEAR FROM START																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	SOUTH DUMP																														
	1a - Station A Waste Pile, 1b - Station C Waste Impoundment, 1c - Station D Surface Impoundment																														
2	HARLEM SLAG PILE (SEE NOTE 1)																														
3	IMS SITE ALONG SALT CREEK (E. SLAG PILE)																														
4	CLEAN FILL SITE																														
5	LIME FINES PILE																														
6	COAL WASHERY PONDS (EAST)																														
7	SLAG FOR COAL WASHERY PONDS																														
8	FOUNTAIN SAND AND GRAVEL FILLED LAKE																														
9	NORTH MILLS LAGOON (SEE NOTE 2)																														
10	FINAL TREATMENT LAGOON																														
11	FIRST FINAL (OLD) TREATMENT LAGOON																														
12	#2 STM LAGOON ON SALT CREEK																														
13	SOUTH MILLS SETTLING BASINS (SLUDGE AND FINISHING)																														
14	SOUTH MILLS OIL SKIMMER AND TANKS																														
15	WIRE MILL CLARIFIER BASIN																														
16	BLACK LAKE																														
17	FORMER ORE PREP. CLEANOUT PIT																														
18	COKE PLANT SURGE PIT, OIL SKIMMER (SEE NOTE 3)																														
19	FORMER BLAST FURNACE SLUDGE FILTER PRESS, CONVEYOR, AND LOADING STATION																														
20	FORMER BLAST FURNACE CLARIFIER AND SETTLING BASIN, COOLING TOWER SUMP																														
21	FORMER BOF SLUDGE BASIN																														
22	NO. 1 C. CASTER SCALE PIT																														
23	NO. 2 C. CASTER SCALE PIT																														
24	EAST RAIL MILL SCALE PIT																														
25	ROD MILL ROUGHER SCALE PIT																														
26	ROD MILL FINISH SCALE PIT																														
27	STM #1 PIERCER SCALE PIT																														
28	STM #2 PIERCER SCALE PIT																														
29	STM - STRETCH SCALE PIT																														
30	11" - ROUGHER SCALE PIT																														
31	11" - FINISHER SCALE PIT																														
32	FORMER 14" - ROUGHER SCALE PIT AREA																														
33	FORMER 14" - FINISHING SCALE PIT AREA																														
34	14" - U-SHAPED SCALE PIT																														
35	20" - SCALE PIT																														
36	25" - 3 HIGH SCALE PIT																														
37	25" - ROUGHER SCALE PIT																														
38	25" - FINISHING SCALE PIT																														
39	40" - SCALE PIT																														
40	45" - SCALE PIT																														
41	BALL MILL NO. SCALE PIT																														
42	BALL MILL SO. SCALE PIT																														
43	GRADER BLADE SCALE PIT																														
44	ACID NEUTRALIZATION SPENT PICKLE LIQUOR TANKS - pH																														
45	DRUM STORAGE-WIRE MILL WAREHOUSES																														
46a	STORAGE TANK SUMP																														
46b	WASTE OIL STORAGE TANKS																														
47	GENERAL TRASH DUMP AREA																														
48	PCB STORAGE AREA																														
49	COAL WASHERY SUMP AND SETTLING BASIN																														
50	BOF GAS CLEANING SILO AND LOADOUT																														

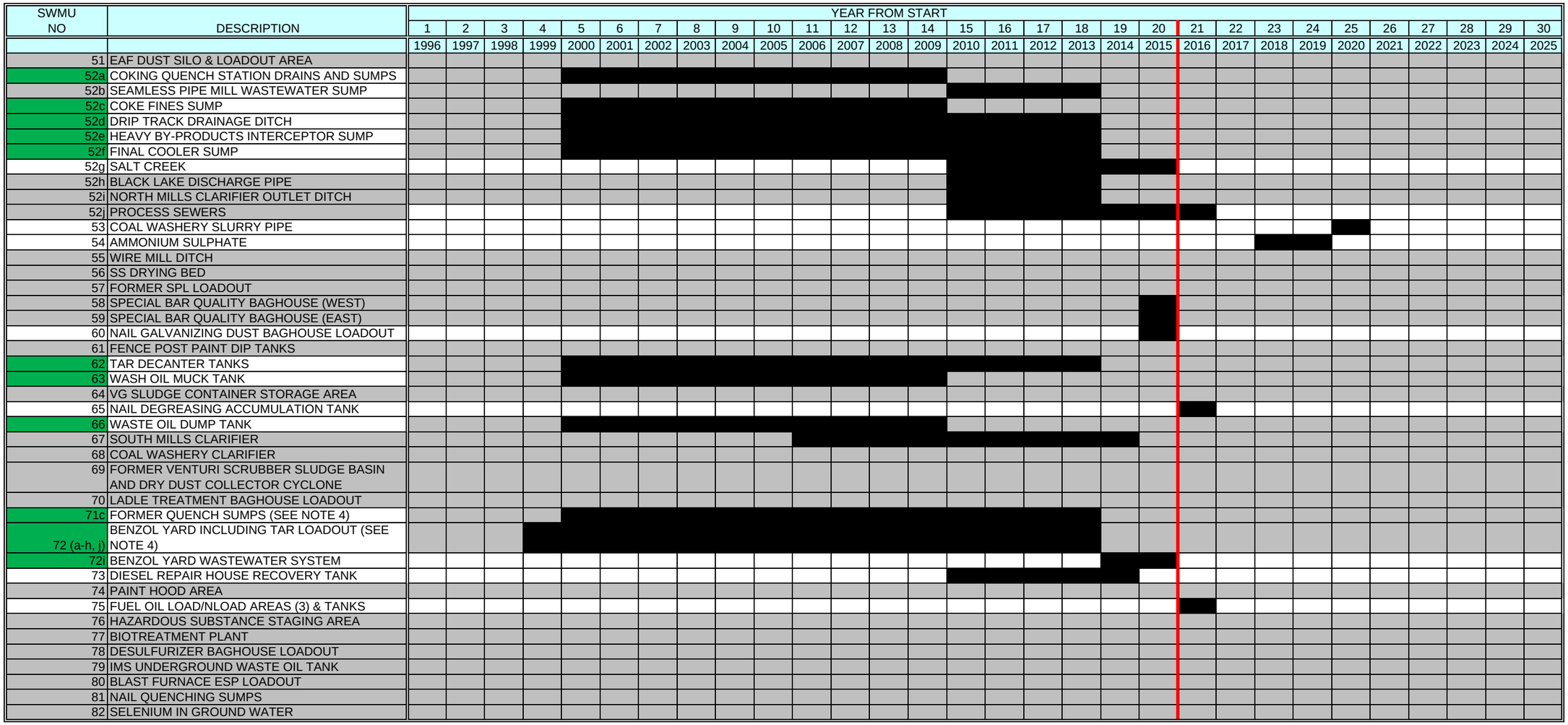
POST-CLOSURE PERMIT
EVRAZ ROCKY MOUNTAIN STEEL
2015 update

NOTE 1. -- START DATE IS DEPENDENT ON COMPLETION OF RECLAMATION ACTIVITIES. THESE ARE EXPECTED TO BE COMPLETED IN 10 TO 15 YEARS
NOTE 2. -- CMS TO BE COMPLETED AT PLANT DECOMMISSIONING
NOTE 3. -- WEST SIDE OF THIS UNIT IS BEING INVESTIGATED AS PART OF SWMU 72

INVESTIGATION/REMEDIATION START YEAR AND ESTIMATE OF DURATION; DURATION IS DEPENDENT UPON SITE CHARA TERIZATION AND REMEDIAL ACTIONS CHOSEN

INDICATES SWMUS WHICH HAVE BEEN REMOVED FROM THE SCHEDULE / NO FURTHER ACTION REQUIRED

ATTACHMENT 14
CORRECTIVE ACTION SCHEDULE
EVRAZ ROCKY MOUNTAIN STEEL
PUEBLO, COLORADO



POST-CLOSURE PERMIT
EVRAZ ROCKY MOUNTAIN STEEL
2015 update

INVESTIGATION/REMEDIATION START YEAR AND ESTIMATE OF DURATION
DURATION IS DEPENDENT UPON SITE CHARACTERIZATION AND REMEDIAL ACTIONS CHOSEN.

INDICATES SWMUS WHICH HAVE BEEN REMOVED FROM THE SCHEDULE / NO FURTHER ACTION REQUIRED

NOTE 4. -- PORTIONS OF THESE SWMUS (71a, 71b) WERE REMOVED FROM THE SCHEDULE PER THE DIVISION'S JUNE 9, 2005 RFI REPORT APPROVAL