

DRAFT PERMIT
FOR
GERDAU AMERISTEEL US INC

MND041775008

FOR A
HAZARDOUS WASTE LAND DISPOSAL FACILITY

LOCATED AT
1675 RED ROCK ROAD
ST. PAUL, MINNESOTA

APRIL 30, 2012

MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD NORTH
ST. PAUL, MINNESOTA 55155-4194

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STATE OF MINNESOTA
POLLUTION CONTROL AGENCY
HAZARDOUS WASTE LAND DISPOSAL FACILITY PERMIT
FOR
GERDAU AMERISTEEL US INC.
EPA ID NO. MND041775008

In accordance with the provisions of Minn. Stat. chs. 115 and 116, Minn. R. 7001.0010 to 7001.0730, and Minn. R. 7045.0020 to 7045.1400, a Hazardous Waste Land Disposal Facility Permit (Permit) is hereby reissued to Gerdau Ameristeel US Inc. (Permittee) for a Facility located at 1678 Red Rock Road, St. Paul, Minnesota (the Facility).

This State Permit comprises the Resource Conservation and Recovery Act (RCRA) Permit which has been prepared based upon the information provided by Gerdau Ameristeel US Inc.'s most recent Permit Application (Part A and Part B) dated April 2011, including revisions received through June 2011. The Part B permit application is comprised of two documents entitled, Minnesota Closed Hazardous Waste Disposal Facility Permit Application, and Post Closure and Groundwater Protection Plan. The Permit Application is referenced throughout this Permit and as such, is an integral and enforceable part of this Permit.

Gerdau Ameristeel US Inc. is the owner and operator of the Facility and is hereafter referred to as the Permittee. Specific operating, emergency, record keeping, reporting, and general conditions apply to the Facility, which contains all permitted regulated units. The Facility is defined to be all property owned and operated by the Permittee located at 1678 Red Rock Road, St. Paul, Minnesota and delineated in Appendix I – Facility Boundary Map of this Permit. This Permit authorizes and requires the Permittee to conduct monitoring, maintenance, and corrective action at the closed hazardous waste land disposal facility (the Flue Dust Landfill) and corrective action at solid waste management units (SWMUs) at the Facility.

Hazardous waste is generated on site hence the Facility is considered an on-site Facility.

The Permittee must at all times conduct its hazardous waste management activities in accordance with the terms and conditions of this Permit and any other requirements imposed by law or Minnesota Rules.

This Permit shall become effective on the date of reissuance, by the Manager of the Minnesota Pollution Control Agency's (MPCA) Land and Air Compliance Section of the Industrial Division. This Permit was last reissued on September 25th, 2006.

This Permit is effective until five years from date of reissuance or until terminated, revoked, or modified by the MPCA, whichever comes first. To obtain a future reissued Permit, the Permittee shall submit an application to the MPCA for reissuance of the Permit. In accordance with Minn. R. 7001.0040, subp. 3, an application for reissuance of this Permit must be submitted to the MPCA no later than 180 calendar days prior to the expiration date of this Permit.

DATE OF REISSUANCE:_____

Jeff Connell, Manager
Compliance and Enforcement Section
Industrial Division

PART I. DESCRIPTION OF FACILITY

A. REGULATED UNIT

Gerdau Ameristeel US Inc. (hereafter Permittee) is the owner and operator of the 75 acre steel production Facility located in the Red Rock Industrial Park, at 1678 Red Rock Road, St. Paul, Minnesota (Facility) which includes the Hazardous Waste Land Disposal Facility. The Facility is delineated in Appendix I. The facility melts scrap steel in one (1) 90-ton heat size Electric Arc Furnace (EAF) and produces rolled steel in rod shapes. Shredded automobiles and other used steel are the primary scrap feed for the EAF. After removal of recyclable materials such as batteries, the automobile bodies are shredded and the steel portion is magnetically separated. The scrap steel is melted in the EAF and new steel is produced. The molten steel is cast into billets, which are rolled into the finished steel shapes. The shredder capacity is up to 2,000 tons of frag (processed auto scrap) per day. The maximum steel mill capacity is approximately 700,000 tons of billet steel per year.

The scrap melting process produces particulate matter (referred to as EAF flue dust), which is removed by air pollution control equipment (a baghouse filter system). Particulate matter is pneumatically transported from the furnaces in a closed system to the baghouse that contains bag filters for collecting the particulate.

The filter cake, which collects on the filter bags, is removed periodically by means of a “reverse air” cleaning cycle. The particulate matter (EAF flue dust) drops down into the dust hopper. Enclosed screw conveyers transport the dust from the enclosed hoppers to a pneumatic conveying system, which transports the dust into a large enclosed dust storage silo. Dust is loaded from the storage silo through a rubber hose spout into railroad cars or trucks for delivery to a recycling facility. The flue dust is currently being sent to recycling facilities in either Illinois or Monterrey, Mexico that recycle the metals from the dust. In the past, flue dust was stored in piles at the Facility.

The EAF flue dust generated by the Permittee is a listed hazardous waste, K061. It is listed because EAF flue dust typically contains chromium, lead, and cadmium.

The regulated unit at the Facility is a hazardous waste land disposal facility that has been permanently closed as a land disposal facility (Flue Dust Landfill). It contains EAF flue dust with some slag, tires, flue dust contaminated wetland sediment, and plastic sheeting. It is located near the south end of North Star Lake, north of the auto storage area. The volume of the waste pile is approximately 34,000 cubic yards. In order to prevent releases of hazardous constituents to the environment, the waste is covered with a protective cap which includes a low permeability layer (two feet of compact clay) which is covered with 42 inches of sand and an erosion resistant top layer of ten (10) inches of crushed slag (a dense rock-like by-product of the melting process). A system for groundwater monitoring is in place to detect any releases of hazardous constituents to the groundwater from the waste pile.

The Permittee is currently conducting a corrective action program at the Flue Dust Landfill in accordance with Minn. R. 7045.0484, subp. 14. As a result of mercury concentrations in the groundwater at the Flue Dust Landfill above the groundwater protection standards established in the Permit, an active groundwater pump and treatment system was installed downgradient of the Flue Dust Landfill to prevent impacts to North Star Lake and to prevent migration of contamination off site. Monitoring wells have been installed downgradient of the groundwater removal system to demonstrate the effectiveness of the corrective action program. Monitoring and maintenance of the Flue Dust Landfill shall be conducted in compliance with the conditions of the Permit.

Under Minn. R. 7045.0485, facilities operating under or applying for a hazardous waste facility permit must undertake corrective action for any releases of hazardous wastes or hazardous constituents from Solid Waste Management Units (SWMUs) (including regulated units) at the Facility. Partial corrective action has been implemented at the Flue Dust Landfill and at various SWMUs as described in Part VII of this Permit. Any work plans, design drawings, construction specifications, and project schedule for corrective actions shall be developed in accordance with this Permit and applicable guidance.

B. AUTHORIZED HAZARDOUS WASTE TO BE MANAGED

The Permittee is authorized to manage the following hazardous wastes in the Flue Dust Landfill under the conditions of this Permit:

<u>Hazardous Waste Code</u>	<u>Hazardous waste description</u>
K061	Emission control dust or sludge from the primary Production of steel in electric furnaces

PART II. FACILITY MONITORING, OPERATING, AND MAINTENANCE CONDITIONS FOR THE FLUE DUST LANDFILL

A. PROPER MONITORING, OPERATING, AND MAINTENANCE

1. The Permittee shall at all times properly monitor and maintain the Flue Dust Landfill and systems of treatment and control and the appurtenances related to it, which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper monitoring and maintenance includes effective performance, adequate funding, adequate staffing and training, adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate back-up or auxiliary facilities if they are necessary to achieve compliance with the conditions of the Permit.

2. The Permittee shall prevent the discharge of hazardous waste from the Facility to the surface waters or ground waters of the State.

3. The Permittee shall operate and maintain the Facility to minimize the possibility of fire, explosion, or other event that might allow hazardous wastes to escape into the air, land, or water.

B. INSPECTIONS

The Permittee shall conduct inspections at the Facility as required under the Inspection Plan set forth in Section 5.0 of the Permit Application and in accordance with Minn. R. 7045.0452, subp. 5 and 7045.0538, subp. 5.

C. SECURITY

The Permittee shall control access to the Facility by the use of fences, gates, locks and other similar methods to allow access only to persons who are authorized by the Permittee. The Permittee shall post a sign legible from a distance of 25 feet with the legend, "Danger – Unauthorized Personnel Keep Out," at each entrance to the active portion of the Facility. The Permittee shall provide security against unauthorized entry onto the site, in accordance with Minn. R. 7045.0452.

D. POST CLOSURE CARE

1. **Post Closure Care and Maintenance.** The Permittee shall provide post closure care of the Flue Dust Landfill in accordance with the Post Closure and Ground Water Protection Plan dated March 2011 or as subsequently revised and approved by the MPCA, and in accordance with Minn. R. 7045.0490 through 7045.0496 and 7045.0538, subp. 7. The Permittee shall:

- a. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events. If any such effects are observed, the Permittee shall immediately contact the appropriate staff at the MPCA to give MPCA staff an opportunity to inspect the cap prior to making repairs.
- b. Maintain and monitor the ground water corrective action and monitoring systems and comply with all other applicable requirements of Minn. R. 7045.0484 and Part II.E. of this Permit.
- c. Prevent run-on and run-off from eroding or otherwise damaging the final cover.
- d. Protect and maintain surveyed benchmarks used in complying with Minn. R. 7045.0538, subp. 6.
- e. Survey the Flue Dust Landfill at least annually and visually inspect quarterly to determine any effects from settling, subsidence, erosion, or other events.

2. Post Closure Period. Post Closure Care of the Flue Dust Landfill must continue for not less than 30 years after completing closure unless reduced or extended by the Commissioner pursuant to Minn. R. 7045.0492. Closure was completed December 1988, and unless modified by the Commissioner, the post closure period will extend through December 31, 2018. The Commissioner has determined that extending the post closure care period beyond the 30-year period is necessary to protect human health and the environment. Thus, pursuant to Minn. R. 7045.0492, subp 1.C., the post closure care period will continue until the Commissioner determines that post closure care is no longer needed. An owner operator may at any time make a demonstration to the Commissioner that post closure care of the land disposal facility is no longer necessary to protect human health and the environment. The MPCA will review the demonstration and the Commissioner will make a determination regarding extending the post closure care period.

The Permittee is currently conducting a corrective action program at the Flue Dust Landfill in accordance with Minn. R. 7045.0484, subp. 14. If the Permittee is conducting corrective action at the end of the post closure period, the Permittee shall continue the corrective action as long as necessary to achieve compliance with the ground water protection standard at all monitoring wells.

3. Post Closure Plan Modifications. The Permittee may submit a written request for a Permit modification to amend the Post Closure and Groundwater Protection Plan in accordance with procedures in Minn. R. ch. 7001. The Permittee shall request a Permit modification to amend the plan whenever changes in monitoring and maintenance plans, Facility design, or other events affect the Post Closure and Groundwater Protection Plan. The Commissioner may also request modifications to the Post Closure and Groundwater Protection Plan under these conditions. The Permittee must submit a written request for a Permit modification at least 60 days before implementing any proposed change in monitoring and maintenance plans or Facility design, or no later than 60 days after any unexpected event, which affects the Post Closure and Groundwater Protection Plan occurs. If the Commissioner requests modification of

the Post Closure and Groundwater Protection Plan, the Permittee must submit the modified Plan no later than 60 days after the Commissioner's request.

4. Certification After the Post Closure Period. Within 60 days after completion of the established post closure care period for the Flue Dust Landfill the Permittee shall submit to the Commissioner, by registered mail, certification by the Permittee and by an independent registered professional engineer that the post closure care for the Flue Dust Landfill was performed in accordance with the approved Post Closure and Groundwater Protection Plan.

E. GROUND WATER PROTECTION

1. Scope

a. The Permittee shall conduct a ground water protection program for the Flue Dust Landfill in accordance with appropriate provisions of the RCRA ground water management Technical Enforcement Guidance Document (TEGD) (U.S. EPA, 1992), the Permittee's current Quality Assurance Project Plan (QAPP), and the MPCA Hazardous Waste Rules. The ground water protection program consists of a detection monitoring program, a compliance monitoring program, and a corrective action program.

b. The requirements of Minn. R. 7045.0484, subps. 2 to 14 apply during the post closure care period under Minn. R. 7045.0492, when the Permittee is conducting a detection monitoring program, a compliance monitoring program, or a corrective action program. The Flue Dust Landfill is a regulated unit and must comply with Minn. R. 7045.0484, subps. 2 to 14 for detecting, characterizing, and responding to releases.

c. The financial responsibility requirements of Minn. R. 7045.0485 apply to regulated units.

2. Required Programs. The Permittee shall conduct a monitoring and response program at the Flue Dust Landfill as follows:

a. If hazardous constituents or monitoring parameters are detected and show a statistically significant increase at the compliance point of the Flue Dust Landfill, the Permittee shall implement the compliance monitoring program in accordance with Part II.E.8 of this Permit and Minn. R.7045.0484, subp.13.

b. If the ground water protection standard is exceeded, the Permittee shall institute corrective action in accordance with Part II.E. 9 of this Permit and Minn. R. 7045.0484, subp. 14.

c. If hazardous constituents from a regulated unit exceed concentration limits in ground water at or past the compliance point, the Permittee shall institute a corrective action program in accordance with Part II.E. 9 of this Permit and Minn. R. 7045.0484, subp. 14. The Permittee is currently conducting a corrective action program at the Flue Dust Landfill in accordance with Minn. R. 7045.0484, subp. 14.

d. In all other cases the Permittee shall institute a detection monitoring program in accordance with Part II.E.7, of the Permit and Minn. R. 7045.0484, subp.12.

3. Ground Water Protection Standard. The Permittee shall comply with conditions specified in this Permit that are designed to ensure that the levels of hazardous constituents from the Flue Dust Landfill detected in the ground water do not exceed the concentration limits in the ground water at or beyond the point of compliance during the post closure period.

These concentration limits are based on Minn. R. 7050.0220. Ultimately, the ground water protection standard is the performance goal for any corrective action conducted on the ground water at the Flue Dust Landfill.

<u>Constituent</u>	<u>Ground Water Protection Standard</u>
Total Chromium (filtered)*	11 micrograms/liter
Mercury (filtered)*	0.007 micrograms/liter

* Both filtered and unfiltered samples shall be collected from all wells during one sampling event each year.

4. Monitoring Parameters. At each sampling event the Permittee shall monitor for the following parameters as indicators of ground water quality. Those constituents for which a surface water standard has been determined have their concentration limits listed.

<u>Monitoring Parameters</u>	<u>Concentration Limit</u>
Chloride	100 milligrams per liter
Iron	***
Manganese	***
Sodium	***
Specific conductivity	1000 micro-Mhos per centimeter
PH	***

5. Point of Compliance

a. The point of compliance is that point or those points at which the ground water protection standard applies and at which monitoring must be conducted. For the Flue Dust Landfill the point of compliance currently consists of the monitoring wells designated as FDMW-1, FDMW-3, FDMW-5, FDMW-9S, FDMW-9D, FDMW-10S, FDMW-10D, FDMW-

11S, and FDMW-11D and are shown and described in the Post Closure and Groundwater Protection Plan.

b. During the corrective action program, additional monitoring wells may be installed, as required to monitor the effectiveness of the corrective action system.

c. Upon completion of the corrective action program, compliance monitoring of the Flue Dust Landfill in accordance with this Permit shall continue until the Permittee demonstrates that the ground water protection standard has not been exceeded for a period of five (5) consecutive years.

6. General Ground Water Monitoring Requirements

a. The Permittee shall maintain the ground water monitoring system at the Flue Dust Landfill to monitor area ground water throughout the post closure period. The ground water monitoring system currently consists of the upgradient monitoring wells, FDMW-2, and FDMW-6A, and the downgradient wells at the point of compliance, FDMW-1, FDMW-3, FDMW-5, FDMW-9S, FDMW-9D, FDMW-10S, FDMW-10D, FDMW-11S, and FDMW-11D.

b. The Permittee shall comply with the requirements of this section for any ground water monitoring program developed to satisfy Parts II.E.7, 8 and 9 of this Permit dealing with detection, compliance and corrective action.

c. The ground water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground water samples that:

- 1) Represent the quality of background ground water that has not been affected by leakage from the Flue Dust Landfill;
- 2) Represent the quality of ground water passing the point of compliance;
- 3) Allow for the detection of potential contamination from the Flue Dust Landfill; and
- 4) Allow for the determination of the effectiveness of any corrective actions implemented at the Flue Dust Landfill.

d. The Permittee shall submit to the Commissioner a work plan for installation of additional ground water monitoring wells at least 30 days in advance of the anticipated date of installation. The work plan is subject to review in accordance with Part IX of the Permit. The Permittee shall have the right to install monitoring wells for the Permittee's own purposes in addition to those wells included in the ground water monitoring system for the Flue Dust Landfill. Monitoring wells must be constructed and installed in accordance with Rules Relating to Wells and Borings, Minn. R. ch. 4725, and the Technical Enforcement Guidance Document, and be cased in a manner that maintains the integrity of the monitoring well bore hole. The hole must be screened and packed with gravel or sand, where necessary, to enable collections of ground water samples. Where necessary, wells must be properly developed to enable collection

of representative ground water samples. The annular space (the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water. Materials used in well construction must be compatible with the intended use of the well.

e. The ground water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground water quality below the Flue Dust Landfill. The program must include procedures and techniques for: sample collections, sample preservation and shipment, analytical procedures, and chain of custody control. All sampling and analyses shall be conducted in accordance with the Quality Assurance Project Plan (QAPP) dated June 6, 2007, and any subsequent revisions to the QAPP approved by the MPCA. The QAPP must be kept up to date with current practices, with MPCA approval of revisions.

f. The ground water monitoring program must include sampling and analytical methods that are appropriate for ground water sampling and that accurately measures hazardous constituents and monitoring parameters in ground water samples. "Monitoring parameters" means waste reaction products, nonhazardous waste constituents, and indicator parameters that provide a reliable indication of the presence of hazardous constituents in the ground water. The monitoring parameters are identified in Part II.E.4. of this Permit.

g. The ground water monitoring program must include a determination of the potentiometric surfaces and ground water flow directions at least annually and immediately prior to each time ground water is sampled. The data and calculations shall be submitted to the Commissioner with the report for the concurrent sampling event.

h. At least annually during the detection and compliance monitoring programs, the Permittee shall determine the flow rates of the ground water being monitored. The Commissioner must be notified of the results and any significant change in the flow rate of the ground water, which may be grounds for modification of the Permit. These results shall be submitted to the Commissioner with the report for the most concurrent sampling event.

i. The ground water monitoring program must establish background ground water quality for each hazardous constituent, which may reasonably be expected to be in or derived from the wastes to be managed at the Facility. The Permittee shall establish background ground water quality in accordance with Minn. R. 7045.0484, subp. 11.

j. The Commissioner may also require the establishment of background values as well as periodic monitoring of ground water for chemical components and physical properties, which are necessary to document ground water quality.

k. The Permittee shall specify one of the statistical methods in Minn. R. 7045.0484, subp. 11.H. to be used in evaluating ground water monitoring data for each hazardous constituents.

l. The Permittee shall provide to the Commissioner, in writing, any field data, analytical data, and statistical calculations from the sampling of ground water monitoring wells as part of establishing or complying with the general ground water monitoring requirements, ground water protection standard, detection monitoring program, compliance monitoring program, or corrective action program. The data and calculations shall be submitted within 90 days of sample collection.

m. Each well shall be equipped with a locking cap and protective posts. Each well shall be provided with a cement collar at the surface to divert drainage away from the well casing. At the top of the well casing, the well number shall be permanently marked on each well at the site. At grade wells may be considered on a case by case basis, and must be approved by the Commissioner. For at grade and above grade wells, the Permittee shall comply with all applicable design, construction, operating and maintenance rules and requirements.

n. An annual ground water monitoring report must be submitted by the Permittee to the Commissioner following each annual sampling event, in accordance with the Post Closure and Groundwater Protection Plan. The annual report will include a summary of sampling events conducted at the Flue Dust Landfill and SWMUs during the monitoring year. The annual ground water monitoring event will occur during June of each year and the annual report shall be submitted by September 15th of that year. The annual ground water monitoring report must contain at a minimum the following:

- 1) Date, location and time each sample was collected and each analysis was completed;
- 2) Static water level for each well to the nearest 0.01 foot from the surveyed reference point, along with a map indicating the ground water flow direction;
- 3) Volume of water removed in gallons and well volumes before sampling;
- 4) Sampler's signature and field comments on unusual or noteworthy occurrences during the sampling event;
- 5) Stabilization test results;
- 6) Reasons for and ramifications of any deviations in sampling or analysis techniques or equipment used from those stated in the approved quality control plan;
- 7) Laboratory results of each sample analysis and the results of the quality control sample analysis along with a table which summarizes the results and compares them to the approved QAPP method detection limits;
- 8) Conditions of the wells and their protection;
- 9) Copies of the chain of custody forms;

10) Calculations made to determine if there has been a statistically significant increase above background or the concentration limits for each constituent for each well.

11) Elevation of North Star Lake and the Mississippi River; and

12) Flue Dust Landfill Monitoring Well Inspection checklist.

13) A table of Flue Dust Landfill surveyed elevations and deviations from the previous year;

14) Flue Dust Landfill Inspection results;

15) Ground water flow rate calculations and discussion;

16) SWMU No. 2 surveyed elevations;

17) Summary of ground water pump-and-treat system operations and evaluation of effectiveness of corrective measures;

18) Pump-and-treatment system ground water capture area map;

19) Operation, Maintenance and Monitoring plan for the pump-and-treatment system;

20) Descriptions of any repair or maintenance activities;

21) Summary of any significant findings;

o. A semiannual ground water monitoring report must be submitted by the Permittee to the Commissioner following each semiannual sampling event, in accordance with the Post Closure and Groundwater Protection Plan. The semiannual ground water monitoring event occurs in November of the sampling year for a reduced number of Flue Dust Landfill and SWMU monitoring wells identified in Table 2 of the March 2011 Post Closure and Groundwater Protection Plan. The semiannual report shall be submitted by February 15 of the year following sampling. The monitoring wells to be sampled during the semiannual event shall be included in the Operation, Maintenance and Monitoring Plan submitted along with the annual report. The semiannual report must contain sufficient information to make a determination as to the effectiveness of the corrective action system. The semiannual ground water monitoring report must contain at a minimum the following:

- 1) Summary of ground water elevations in monitoring wells;
- 2) Ground water flow direction map;
- 3) Sampling (well inspection) logs for each well;
- 4) Review of monitoring well recovery rates;
- 5) Chain of Custody forms;
- 6) Analytical results;
- 7) Summary of the analytical data;
- 8) Summary of pump-and-treatment system operations;
- 9) Pump-and-treatment system ground water capture map;
- 10) Descriptions of any repair or maintenance activities; and
- 11) Summary and review of significant findings.

7. Detection Monitoring Program. The Permittee, if required by the MPCA to return to a detection monitoring program, shall monitor for hazardous constituents and monitoring parameters to indicate the presence of hazardous constituents in the ground water. The hazardous constituents and monitoring parameters to be monitored for in detection monitoring are identified in Part II.E.3 and Part II.E.4 of this Permit. If a detection monitoring program is required, the Permittee shall conduct a detection monitoring program in accordance with the conditions of this Permit and Minn. R. 7045.0484, subp. 12.

8. Compliance Monitoring Program. If the Permittee successfully completes the corrective action program and is required to return to a compliance monitoring program, the Permittee shall conduct a compliance monitoring program in accordance with the Minn. R. 7045.0484, subp. 13 and the following:

- a. The Permittee shall monitor the ground water to determine whether the Flue Dust Landfill is in compliance with the ground water protection standard set forth in Part II.E.3. of this Permit.
- b. Annually, the Permittee shall conduct a sampling program for each hazardous constituent and monitoring parameter specified in Part II.E.3. and Part II.E.4. of this Permit. The Permittee shall express the concentration at the monitoring wells in a form necessary for the determination of a statistically significant increase.
- c. The Permittee shall determine whether there is statistically significant evidence of increased contamination for any monitoring parameter (excluding pH, chloride, sodium, and specific conductivity) or any hazardous constituent specified in Parts II.E.3 and 4, each time the Permittee determines the concentration of hazardous constituents in ground water at the compliance point.

The Permittee shall compare the ground water quality at the monitoring wells at the compliance point for each hazardous constituent to the concentration limit in Part II.E.3. of this Permit for that hazardous constituent according to the statistical procedures specified in Minn. R.7045.0484 and the Permittee's Post Closure and Groundwater Protection Plan. Comparisons to date indicate that the concentration limit is being exceeded at the point of compliance as defined in Part II.E.5.

d. If the Permittee determines that the ground water protection standard is being exceeded at any monitoring well the Permittee shall:

1) Notify the Commissioner of this finding in writing within seven (7) days. The notification must indicate the concentration limits that have been exceeded.

2) Implement the corrective action program and submit to the Commissioner an application for Permit modification, if necessary, to supplement the corrective action program so as to meet the requirements of Minn. R. 7045.0484, subp. 14, within 90 days. The Permittee must include a detailed description of corrective actions that will achieve compliance with the ground water protection standard specified in the Permit and a plan for a ground water monitoring program that will demonstrate the effectiveness of the corrective action program. The ground water monitoring program must also be capable of demonstrating compliance with the concentration limits in the ground water at the downgradient portion of the property line of the facility, and beyond the Facility boundary, where necessary to protect human health and the environment.

e. If the Permittee determines that the ground water protection standard is being exceeded at any monitoring well at the point of compliance, the Permittee may demonstrate that a source other than the regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, statistical evaluation, or natural variation in ground water. Until the Permittee makes such a demonstration, the Permittee is not relieved of the requirement to submit a Permit modification application, if necessary to comply with Part II.E.8.d. of this Permit and Minn. R. 7045.0484, subp. 13.H. In noting the demonstration, the Permittee shall:

1) Notify the Commissioner in writing within seven (7) days of the intent to make a demonstration;

2) Within 90 days, submit a report to the Commissioner, which demonstrates that a source other than the regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation.

3) Within 90 days, submit to the Commissioner an application for a Permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

4) Continue to monitor in accordance with compliance monitoring program.

f. If the Permittee or Commissioner determines that the compliance monitoring program no longer satisfies the requirements of the Permit, the Permittee shall, within 90 days, submit an application for a Permit modification to make any appropriate changes to the program.

g. The Permittee shall in any case ensure that monitoring and corrective action measures necessary to achieve compliance with the ground water protection standard are taken during the term of the Permit.

9. Corrective Action Monitoring Program. The Permittee is currently conducting a corrective action program at the Flue Dust Landfill in accordance with Minn. R. 7045.0484, subp. 14. The Permittee has determined that the ground water protection standard for mercury has been exceeded at the point of compliance as defined in Part II.E.5. In accordance with Minn. R. 7045.0484, subp.13 item H, the Permittee is required to implement the corrective action program outlined in Part III.B.1 of this Permit. In conjunction with the corrective action program, the Permittee shall establish and implement a ground water monitoring program to demonstrate the effectiveness of the corrective action program. The monitoring program may be based on the requirements for a compliance monitoring program and must be at least as effective as that program in determining compliance with the ground water protection standard, and in determining the success of a corrective action program. This monitoring program must also be capable of demonstrating compliance with the concentration limits in Part II.E.3 of this Permit at the downgradient portion of the Facility property line.

F. COST ESTIMATES AND FINANCIAL ASSURANCE

1. Cost Estimate for Post Closure Care. The Permittee's post closure cost estimate is set forth in the Post Closure and Ground Water Protection Plan.

a. The Permittee shall also revise the post closure cost estimate within 30 days after the Commissioner has approved any modification to the Post Closure and Groundwater Protection Plan, whenever a change in the Post Closure and Groundwater Protection Plan increases the cost of post closure care.

b. The Permittee must keep a copy of the latest post closure cost estimate at Gerdau Ameristeel US Inc., 1678 Red Rock, St. Paul, Minnesota. When this estimate is adjusted in accordance with Item a above, the latest adjusted post closure cost estimate shall be kept on file.

2. Cost Estimate for Corrective Action. The Permittee's corrective action cost estimate is set forth in the 2011 Corrective Measures Implementation Evaluation Report dated February 2012.

a. The Permittee must adjust annually the corrective action cost estimate within 30 days of the end of the Permittee's fiscal year and submit the cost estimate and financial assurance to the Commissioner.

b. The Permittee must also revise the corrective action cost estimate whenever a change in the corrective action plan increases the cost of corrective action.

c. The Permittee must keep at the Facility a copy of the latest corrective action cost estimate. When this estimate is adjusted in accordance with Item a or b above, the latest adjusted corrective action cost estimate shall be kept on file.

3. Financial Assurance. The Permittee shall provide financial assurance using the financial test and a corporate guarantee provided by Gerdau Ameristeel Corporation, the Permittee's parent corporation, for post closure care and corrective action for the land disposal facility, in accordance with Minn. R. 7045.0508, subp. 7 and 7045.0514, subp. 7. The Permittee shall continue to maintain the financial test and corporate guarantee until and unless the Commissioner approves a request by the Permittee to satisfy the requirements of Minn. R. 7045.0508 and 7045.0514 in another manner.

G. LIABILITY COVERAGE

In accordance with requirements of Minn R. 7045.0518, the Permittee shall have and maintain liability coverage for sudden and nonsudden accidental occurrences, in form and substance satisfactory to the MPCA. The Permittee shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least One Million Dollars (\$1,000,000) per occurrence, with an annual aggregate coverage in the amount of at least Two Million Dollars (\$2,000,000), exclusive of legal costs. The Permittee shall have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least Three Million Dollars (\$3,000,000) per occurrence, with an annual aggregate coverage in the amount of at least Six Million Dollars (\$6,000,000), exclusive of legal costs.

The Permittee shall comply with this requirement by providing a financial test and corporate guarantee by Gerdau Ameristeel Corporation in accordance with Minn. R. 7045.0518, subps. 6 and 7.

The Permittee shall continue to maintain the financial test and corporate guarantee for liability coverage until and unless the Commissioner approves a request by the Permittee to satisfy the requirements of Minn. R.7045.0518 in another manner.

H. RECEIPT OF UNAUTHORIZED WASTE

In the event the Permittee receives a shipment of hazardous wastes that the Permittee is not authorized to manage at the Facility, the Permittee shall IMMEDIATELY notify the MPCA and wait for further instructions before accepting the waste. This is required by Minn. R. 7045.0452, subp. 3, item B.

I. PERSONNEL TRAINING

The Permittee shall not allow any employee to work at the Facility in a job related to hazardous waste management until that employee has received all training required by Minn. R. 7045.0454 and the Personnel Training Plan set forth in section 6.0 of the Permit Application.

J. LIGHTING

The Permittee shall provide adequate lighting for the Facility to ensure safety and proper operation.

PART III. SPECIAL CONDITIONS

A. QUALITY ASSURANCE PROJECT PLAN FOR GROUND WATER MONITORING

Within 60 days of reissuance of this permit, the Permittee shall revise, as necessary, the Quality Assurance Project Plan (QAPP) so that the QAPP reflects current conditions and procedures used at the Flue Dust Landfill and SWMUs.

B. CORRECTIVE ACTION

1. Regulated Unit (Flue Dust Landfill). The Permittee has determined that the ground water protection standard for mercury has been exceeded at the point of compliance. Therefore, in accordance with Minn. R. 7045.0484, subp. 13, item H, the Permittee has implemented corrective action at the Flue Dust Landfill. Corrective action at the Flue Dust Landfill consists of a ground water pump-and-treatment system, monitoring, and institutional controls as discussed in Part VII of this Permit.

The Permittee has implemented a corrective action program to restore hazardous constituents to concentrations at or below the ground water protection standard at or beyond the compliance point in accordance with the approved April 2001 Corrective Measures Study (CMS) and the Pilot and Full-Scale Corrective Measures Implementation (CMI) Work Plans submitted to and approved by the Commissioner.

Corrective action measures may be terminated subject to approval by the Commissioner once the concentration of hazardous constituents is reduced to levels below their respective concentration limits contained in Part II.E.3. of this Permit, at the compliance point and areas downgradient of the compliance point including areas beyond the Facility property line.

The Permittee shall continue corrective action measures during the post closure care period to the extent necessary to ensure that the ground water protection standard is not exceeded at any monitoring well.

If the Permittee is conducting corrective action at the end of the post closure period, the Permittee shall continue that corrective action for as long as necessary to achieve compliance with the ground water protection standard at each monitoring well.

The Permittee may terminate corrective action measures taken, beyond the post closure period for the regulated unit, if the Permittee can demonstrate, based on data from the ground water monitoring program under Part II.E.9. that the ground water protection standard has not been exceeded for a period of five (5) consecutive years at any monitoring well.

The Permittee shall report, on a frequency as specified in the Post Closure Groundwater Protection Plan, in writing to the Commissioner on the effectiveness of the corrective action program.

If the Permittee or the Commissioner determines that the corrective action program no longer satisfies the requirements of the Permit, the Permittee shall, with 90 days, submit an application for a Permit modification to make appropriate changes to the program.

If the selected remedy (i.e. pump and treat) is ineffective, the Permittee shall evaluate other remedies, including control of the source of mercury being released into the ground water in the vicinity of the Flue Dust Landfill, namely the flue dust or potentially contaminated material underlying the Flue Dust Landfill.

2. Solid Waste Management Units. The Permittee shall implement corrective action at the Facility for SWMUs in accordance with Part VII of this Permit.

3. Contaminated Sediment in North Star Lake. The Permittee has completed an investigation of the contaminated sediment in North Star Lake to fully determine the extent of contamination in the sediment. The Permittee has submitted and the MPCA has approved a Corrective Measures Study (CMS). The CMS developed and evaluated corrective action alternatives to remedy the contaminated sediment, and recommends a corrective measure to be taken. The Permittee has submitted to the MPCA for review and approval, the Corrective Measures Implementation (CMI) Work Plan. After approval by the MPCA, the CMI Work Plan shall be implemented in accordance with Part VII.L of this Permit and completed in accordance with the schedule in the approved CMI Work Plan.

C. COMPLIANCE SCHEDULE

The Permittee shall, as soon as is reasonably possible but in no case later than the time specified herein, comply with the requirements and schedules set forth in this Section.

<u>Corresponding Activity</u>	<u>Permit Section</u>	<u>Due Date</u>
Revise QAPP if necessary	III.A.	Within 60 days of reissuance of this Permit.
Annual Ground Water Monitoring Report	II.E.6.n.	Annually by Sept. 15.
Semiannual Ground Water Monitoring Report	II.E.6.o	Annually by February 15.
Implement the approved CMI Work Plan for North Star Lake Sediment	III.B.3	Per the schedule in the CMI

Submit Draft CMI Report for North
Star Lake Sediment

VII.L.3

Within 90 days after
completion of corrective
measures for North Star Lake
sediment

Submit Draft Environmental
Covenant for MPCA review

VII.C.1

Within 90 days after
completion of corrective
measures for North Star Lake
sediment

PART IV. EMERGENCY PROCEDURES

A. IMPLEMENTATION OF CONTINGENCY PLAN

In accordance with Minn. R. 7045.0466, subp. 3, the Permittee must ensure that the provisions of the contingency plan, set forth in Section 7 of the Permit Application, are carried out IMMEDIATELY whenever there is a release, fire, or explosion of hazardous waste or hazardous constituents which could threaten human health or the environment.

B. AMENDMENT OF CONTINGENCY PLAN

1. The Permittee shall amend the contingency plan whenever:
 - a. This Permit is revised,
 - b. Said plan fails in an emergency,
 - c. The Facility changes in its design, construction, operation, maintenance, or other circumstance in a way that increases the potential for fires, explosions, or the release of hazardous waste or hazardous constituents, or changes the response necessary in an emergency,
 - d. The designated emergency coordinator changes, or
 - e. The list of emergency equipment changes.
2. The Permittee shall maintain a copy of its contingency plan at the Facility at all times.
3. The Permittee shall submit a copy of its contingency plan to all local police departments, fire departments, hospitals, and all local and state emergency response teams that may be called upon to respond in an emergency situation at the Facility.

C. PREPAREDNESS AND PREVENTION

1. **Required equipment.** At a minimum, the Permittee shall maintain emergency equipment required by the contingency plan.
2. **Testing and maintenance of equipment.** The Permittee shall test and maintain all Facility communications or alarm systems, fire protection equipment, and spill control equipment to ensure proper operation in time of emergency. The maintenance and inspection of emergency equipment shall be conducted in accordance with the Inspection Plan set forth in Section 5 of the Permit Application.

3. **Access to communications or alarm system.** The Permittee shall ensure that whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual and/or voice contact with another employee.

D. EMERGENCY COORDINATOR

In accordance with Minn. R. 7045.0468, subp. 1, the Permittee shall at all times have at least one (1) employee either on the Facility premises or on call with the responsibility for coordinating all emergency response measures. The following person qualifies as the emergency coordinator and each assumes all responsibilities described in Part IV. of this Permit.

Douglas B. Stolowski, Environmental Manager
Gerdau Ameristeel US Inc.
Telephone: 651-731-5697

The Permittee may change the names of employees who qualify as emergency coordinator by contacting the MPCA and identifying the new emergency coordinators.

G. NOTIFICATION TO MPCA REGARDING SPILLS/LEAKS/RELEASES OF HAZARDOUS WASTE

1. **Scope.** Minn. Stat. §§ 115.061 and 116.061 require notification to the MPCA regarding discharges to water and air, respectively, for materials other than hazardous waste. Minn. R. 7045.0468, subp. 5, item B, and subp. 6 also provide requirements for reporting to the agency discharges of hazardous waste. Compliance under items 3 and 5 below satisfies the agency notification requirements regarding releases of hazardous waste at permitted hazardous waste facilities for both the rules and statutes cited above

All notifications required by items 3 and 5 below must be made to the Minnesota Duty Officer at one of the appropriate numbers provided below. Notification to the Minnesota Duty Officer satisfies the requirement for notifying the agency.

TWIN CITIES METRO AREA (AND OUTSIDE MINNESOTA): 651-649-5451

GREATER MINNESOTA: 1-800-422-0798

2. Statutory Language

MINN. STAT. § 115.061 DUTY TO NOTIFY AND AVOID WATER POLLUTION

(a) Except as provided in paragraph (b), it is the duty of every person to notify the agency of the discharge, accidental or otherwise, of any substance or material under its control which, if not recovered, may cause pollution of waters of the state, and the responsible person shall recover as rapidly and thoroughly as possible such substance or material and take immediately such other action as may be reasonably possible to minimize or abate pollution of waters of the state caused thereby.

(b) Notification is not required under paragraph (a) for a discharge of five gallons or less of petroleum, as defined in section 115C.02, subd 10. This paragraph does not affect the other requirements of paragraph (a).

3. Required Notification

a. The following actions constitute compliance with the agency reporting requirements of Minn. Stat. § 115.061 and with Minn. R. 7045.0468, subp. 5, item B, and subp. 6 regarding discharges of hazardous waste, other than releases to air, at permitted hazardous waste facilities.

The Minnesota Duty Officer must be notified immediately of any of the following discharges:

- 1) A fire, explosion, or discharge that could threaten human health or the environment outside the Facility.
- 2) A discharge to the secondary containment of a permitted unit that is NOT completely contained in the secondary containment and/or is NOT recovered in a timely manner.
- 3) All discharges to areas that could cause pollution of soil, surface water, or ground water.

4. Statutory Language:

MINN. STAT. § 116.061. AIR POLLUTION EMISSIONS ABATEMENT

Subd. 1. Emission notification required.

(a) A person who controls the source of an emission must notify the MPCA immediately of excessive or abnormal unpermitted emissions that:

- (1) May cause air pollution endangering human health.
- (2) May cause air pollution damaging property; or
- (3) Cause obnoxious odors constituting a public nuisance.

(b) If a person who controls the source of an emission has knowledge of an event that has occurred and that will subsequently cause an emission described in paragraph (a), the person must notify the MPCA when the event occurs.

Subd. 2. Abatement required. A person who is required to notify the MPCA under subdivision 1 must take immediate and reasonable steps to minimize the emissions or abate the air pollution and obnoxious odors caused by the emissions.

Subd. 3. Exemption. The following are exempt from the requirements of subdivisions 1 and 2:

- 1) emissions resulting from the activities of public fire services or law enforcement services;
- 2) emissions from motor vehicles, as defined in section 169.01, subdivision 3;
- 3) emissions from an agricultural operation deemed not a nuisance under section 561.19, subdivision 2; or
- 4) emissions from MPCA regulated sources that are routine or authorized by the agency.

Subd. 4. Penalty exception. A person who notifies the agency of emissions under subdivision 1 and who complies with subdivision 2 shall not be subject to criminal prosecution under section 115.071, subdivision 2.

Subd. 5. Use of Notification. Any notice submitted under subdivision 1 is not admissible in any proceeding as an admission of causation.

5. Required Notification. Compliance with the statutory notification requirements above in Part IV.E, and the requirement below in Part IV.F, constitutes compliance with the agency reporting requirements of Minn. R. 7045.0468, subp. 5. item B, and subp. 6 regarding discharges of hazardous waste to the air at permitted hazardous waste facilities.

Notification must be provided for a fire, explosion, or discharge that could threaten human health or the environment outside the facility.

F. ADDITIONAL EMERGENCY COORDINATOR DUTIES AND NOTIFICATION TO OTHER AGENCIES

For reporting requirements regarding discovery of "noncompliance" with a condition of this Permit which could endanger human health or the environment, please refer to Part VI, of this Permit.

Whenever the contingency plan is implemented; the emergency coordinator shall IMMEDIATELY:

1. Activate internal Facility alarms or communication systems,
2. Identify the character, exact source, amount, and areal extent of any released material,
3. Assess possible hazards to human health or the environment, considering both direct and indirect effects of the release, fire, explosion; effects from any toxic, irritating, or asphyxiating gases that are generated; and effects of any hazardous surface water run-off from water or chemical agents used to control fire and explosions, and
4. Carry out the appropriate provisions of the contingency plan set forth in Section 7 of the Permit Application.

If the emergency coordinator determines that:

- a. The hazardous waste or hazardous constituent release, fire, or explosion could threaten human health or the environment, outside the Facility as defined in Part I, of this Permit, or
- b. Evacuation of local areas may be advisable, or
- c. A released hazardous waste or hazardous constituent may cause pollution of the air, land resources, or waters of the state, the emergency coordinator shall IMMEDIATELY notify:
 - 1) Appropriate state and local authorities,
 - 2) The governmental official designated as the on-scene coordinator for that geographical area, or the National Response Center at 800-424-8802.

The information in items a) through f) below shall be given to each of the above authorities at the time of the notification:

- a) Name and telephone number of reporter,
- b) Name and address of Facility,
- c) Date, time, and type of incident,
- d) Name and quantity of material involved,
- e) Extent of damages or injuries, if any, and
- f) The possible hazards to human health and/or the environment.

G. CONTAINMENT MEASURES

During an event that requires implementation of the contingency plan, the emergency coordinator shall ensure that releases, fires, and explosions do not occur, recur, or spread to other hazardous waste at the Facility. If the Facility stops operations, the emergency coordinator shall monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

H. POST EMERGENCY CLEANUP

IMMEDIATELY after an event that requires implementation of the contingency plan, the Permittee shall provide for treating, storing, or disposing of recovered waste, contaminated soil, ground water, and any other contaminated material resulting from the emergency incident at the Facility, in a manner required by applicable laws and rules.

I. STARTUP OF OPERATIONS

The Permittee shall not recommence operations after an emergency until the EPA, MPCA, and local police and fire departments have been notified and the Facility is in compliance with Minn. R. 7045.0470, subp. 2.

J. POST EMERGENCY REPORTING

WITHIN 15 DAYS after an event that requires implementation of the contingency plan as required by Minn. R. 7045.0466, subp. 3, the Permittee shall submit a written report to the Commissioner describing the incident, containing information as required by Minn. R. 7045.0470, subp. 3.

K. OPERATING RECORD

The Permittee shall note in the operating record the time, date, and details of any incident that requires implementation of the contingency plan.

PART V. RECORD KEEPING REQUIREMENTS

A. DOCUMENTS TO BE MAINTAINED AT FACILITY

The Permittee shall maintain at the facility, until post closure care is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to those documents:

1. A post closure plan prepared in accordance with Minn. R.7045.0490 and 7045.0492. The Permittee's Post Closure Plan is set forth in Section I of the Post Closure and Groundwater Protection Plan;
2. A ground water protection plan prepared in accordance with Minn. R. 7045.0484. The Permittee's Groundwater Protection Plan is set forth in Sections II, III, and IV of the Post Closure and Groundwater Protection Plan;
3. An inspection plan developed in accordance with Minn. R. 7045.0452, subp. 5. The Permittee's inspection schedules are set forth in the Permit Application;
4. Quality Assurance Project Plan (QAPP) for ground monitoring;
5. A copy of the Contingency Plan that meets the requirements of Minn. R. 7045.0466. The Contingency Plan is set forth in Section 7.0 of the Permit Application; and
6. A personnel training plan that meets the requirements of Minn. R. 7045.0454. The personnel training plan is set forth in Section 6.0 of the Permit Application.

B. POST CLOSURE OPERATING RECORD

The Permittee shall keep a written operating record at the Facility that contains the following information:

1. Records and results of inspections as required by Minn. R. 7045.0452, subp.5, and Part V.A.3 of this Permit.
2. Monitoring, testing, or analytical data required by this Permit or by Minn. R. 7045.0484.
3. Cost estimates and financial assurance for post closure and corrective action.
4. Summary reports and details of all incidents, which required implementation of the Contingency Plan.
5. All annual and corrective action monitoring reports specified in Part II.E.6.n. and o. and Part VII of this Permit.

C. MONITORING WELL AND TESTING RECORDS

In accordance with Minn. R. 7001.0150, subp. 2, items B and C:

1. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, and records of all data used to complete the Application for this Permit.
2. Records of monitoring information shall specify:
 - a. The date(s), exact place, and time(s) of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques for methods used; and
 - f. The results of such analyses.

D. PERSONNEL RECORDS

The Permittee shall maintain at the Facility at all times a copy of the following personnel records:

1. The job title for each position at the Facility related to hazardous waste management and the name of the employee filling each job.
2. A written job description of each position at the Facility related to hazardous waste management. This description may be consistent in its degree of detail with descriptions for other similar positions in the same company location or bargaining unit, but must include at least the requisite skill, education, or other qualifications and duties of employees assigned to each such position.
3. A written description of the type and amount of both introductory and continuing training in accordance with the Personnel Training Plan set forth in section 6.0 of the Permit Application, that will be given to each person filling a hazardous waste position referenced in item 1, above.
4. Records that document the training provided to each employee filling a position referenced in item 1 above.

E. INSPECTION RECORDS.

The Permittee shall record all inspections in an inspection log. These records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

F. RETENTION AND DISPOSITION OF RECORDS

The retention period for all records required is three (3) years, unless otherwise specified by this Permit or by Minn. R. 7045.0450 to 7045.0544. The retention period is extended automatically during the course of an unresolved enforcement action regarding the Facility and shall be extended upon request of the Commissioner.

G. MONITORING WELL RECORDS.

The Permittee shall maintain records from all ground water monitoring wells and associated ground water surface elevations for the active life of the Facility, and for disposal facilities, the post closure care period as specified in Minn. R. 7001.0720, subp. 2. B.

PART VI. REPORTING REQUIREMENTS

A. REPORTING NONCOMPLIANCE

As used herein, the term "noncompliance" refers to any failure, intentional or unintentional, avoidable or unavoidable, to satisfy any requirement of this Permit.

1. If the Permittee discovers that noncompliance with a condition of the Permit has occurred, which could endanger human health, public drinking water supplies, or the environment, the Permittee shall, **WITHIN 24 HOURS** after the discovery of the noncompliance, orally notify the Commissioner. **WITHIN FIVE (5) DAYS** of the discovery of the noncompliance, the Permittee shall submit to the Commissioner a written description of the noncompliance; the cause of the noncompliance; the exact dates of the period of noncompliance; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

2. For noncompliance occurrences not required to be reported under Part VI. A.1, above, the Permittee shall submit a written report to the Commissioner **WITHIN 30 DAYS** after the noncompliance is discovered.

B. REPORTING PLANNED CHANGES

The Permittee shall give advance written notice to the Commissioner as soon as possible of any planned physical alteration of or addition to the Permitted Facility and of any activity that may result in noncompliance with its Permit or with any requirement of state or federal law. This notice does not relieve the Permittee of:

1. The requirement to obtain a modification of this Permit or,
2. Any liability for noncompliance with this Permit or the law.

C. ANNUAL REPORTING REQUIREMENTS

1. **Annual Report.** The Permittee shall submit an annual report to the MPCA no later than March 1st of each year, for the previous calendar year. The annual report must include the information required by Minn. R. 7045.0482, subp. 2.

2. **Post Closure and Corrective Action Financial Assurance, and Liability Coverage.** Within 90 days after the close of the Permittee's fiscal year, the Permittee shall submit each year, to the MPCA, a revision of the financial assurance for Post Closure and Corrective Action (with cost updates) and liability coverage, with respect to those items required in Part II.F. hereof.

3. **Ground Water Monitoring Reports.** The Permittee shall, by September 15th of each year, submit to the MPCA an annual ground water monitoring report in accordance with Part II.E.6.n of this Permit. The Permittee shall, by February 15th of each year, submit to the MPCA a semiannual ground water monitoring report in accordance with Part II.E.6.o of this Permit.

4. **Fees.** The Permittee shall pay the required annual facility fee as specified in Minn. R. 7046.0020.

D. CERTIFICATION AND SIGNATORY REQUIREMENTS

All reports or other information required to be submitted to the Commissioner in accordance with the terms and conditions of this Permit shall carry the certification required by Minn. R. 7001.0070 and 7001.0540.

E. SUBMITTAL OF WRITTEN REPORTS

The MPCA will designate a specific staff person to whom specific reports should be submitted. If not otherwise specified, written reports required to be submitted by the Permittee shall be sent to:

Minnesota Pollution Control Agency
Land and Air Compliance Section Manager
Industrial Division
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

PART VII. CORRECTIVE ACTION FOR SWMUs

A. SCOPE OF CORRECTIVE ACTION

The primary objective of the Resource Conservation and Recovery Act (RCRA) corrective action program is to clean up releases of hazardous waste or hazardous constituents at treatment, storage, or disposal facilities subject to Subtitle C of RCRA. Section 3004 (u) of the 1984 Hazardous and Solid Waste Amendments (HSWA), and Minn. R. 7045.0485 require facilities issued Permits after November 8, 1984, to provide corrective action for releases of hazardous waste/hazardous contaminants (HW/HC) from any SWMU or Area of Concern (AOC), regardless of the time when waste was placed in the unit.

The RCRA corrective action program consists of the following four steps:

1. The RCRA Facility Assessment (RFA);
2. The RCRA Facility Investigation (RFI);
3. The Corrective Measures Study, (CMS); and
4. The Corrective Measures Implementation (CMI).

The RFA documents historical information, and provides an assessment of the potential for SWMU releases. The RFI further investigates the scope (nature, rate, and extent) of contamination posed by SWMUs through a hydrogeologic investigation, and once complete, the CMS serves to compare remediation alternatives and select the most reasonable, practical, and feasible technology. Finally, the CMI is the corrective action stage, which implements the chosen remediation method. The remedial alternative is designed, operated, maintained, and monitored to optimize performance necessary to protect human health and the environment.

B. HISTORY OF CORRECTIVE ACTION AT THE FACILITY

1. **Assessment.** In 1987, MPCA staff conducted an RFA at the facility. The RFA identified twelve (12) SWMUs and concluded that several areas required further investigation during the RFI process. Based on the RFA and subsequent investigations, the following six (6) SWMUs (Appendix I – SWMU Site Layout Map) were included in the RFI process:

- a. SWMU #1 - Former Surface Impoundment.
- b. SWMU #2 - Former Flue Dust Waste Pile.
- c. SWMU #3 - Container Storage Area.
- d. SWMU #4 - Automobile Shredder Area.
- e. SWMU #5 - Automobile Storage Area.
- f. SWMU #6 - EAF Baghouse Area.

In 2005, an assessment of potential impacts to the sediment of North Star Lake was conducted by the Permittee which indicated the need for investigation to define the extent and magnitude of sediment contamination.

2. **Investigation.** Each SWMU in item 1 was subject to a RCRA RFI, as defined in Part VII.H of this Permit, to determine the potential for and extent of releases of hazardous constituents to the soil and ground water and their rate of migration. Initial investigation of the above referenced SWMUs was conducted between 1994 and 1995. In response to a request from the MPCA, an investigation was completed between 2005 and 2009, to determine level and extent of contamination of the sediments in North Star Lake. Based on concentrations of metals in the sediment in North Star Lake, the MPCA is requiring corrective actions.

3. **Selected Remedies.** Based on the results of the 1995 RFI of the original six SWMUs, the Permittee submitted a Final CMS report dated April 2001. The purpose of the corrective measure study report is to develop and evaluate corrective action alternatives and to make recommendations for potential corrective action for addressing hazardous constituents at SWMUs at the Facility. Based on the investigation data collected to date and the evaluations of alternatives in the 2001 CMS, the proposed corrective measures for the original six SWMUs are listed below. A further description of these alternatives and rational behind selecting these alternatives is contained in the CMS and the Statement of Basis (SB) dated June 2001. Based on the results of the RFI for the contaminated sediments in North Star Lake, the Permittee submitted a Final CMS dated August 2011 selecting sediment removal as the corrective action alternative. The Permittee is in the process of finalizing a CMI Work Plan for the removal of contaminated sediments from North Star Lake.

SELECTED REMEDY

<u>COMPONENTS</u>	<u>SWMU 1</u>	<u>SWMU 2</u>	<u>SWMU 4</u>	<u>SWMU 5</u>	<u>FDL</u>
1. Pump and Treat		X			X
2. Monitor	X	X	X		X
3. Hot Spot Removal	X		X	X	
4. Soil Cover		X			
5. Institutional Controls	X	X	X	X	X
6. Storm Water Control			X	X	

a. **SWMU 1 – Former Surface Impoundment.** Surface soils contaminated above cleanup levels at SWMU 1 in the area of samples TT-1-1 and TT-1-3 were excavated and disposed off site, i.e. “Hot Spot Removal”. Long-term ground water monitoring and institutional controls will be implemented at this SWMU. If concentrations of chemicals of concern in ground water consistently exceed surface water protection standards, active remediation options will be evaluated and implemented if the MPCA determines that it is necessary.

b. SWMU 2 – Former Flue Dust Waste Pile. A ground water pump and treat system was installed at SWMU 2 to prevent the further migration of hazardous constituents into North Star Lake. A soil cover was placed on top of SWMU 2 to prevent direct contact with the flue dust waste. If the performance monitoring of the pump and treat system indicates the system is not effectively restricting contaminant migration to North Star Lake, the MPCA may require the Permittee to evaluate additional remedies. A long-term ground water monitoring program has been implemented to monitor the effectiveness of the system. In addition, institutional controls will be implemented at this SWMU.

In 1988, approximately 200 cubic yards of flue dust and sediment were removed from North Star Lake in the area of SWMU 2, and placed in the Flue Dust Landfill. Between 2005 and 2009, the Permittee conducted sediment sampling in North Star Lake to determine the magnitude and extent of contamination of the sediment. The Permittee is in the process of finalizing a CMI work plan for the removal of contaminated sediments from North Star Lake.

c. SWMU 3 – Container Storage Area. No active corrective measures are recommended for SWMU 3 at this time.

d. SWMU 4 and 5 – Automobile Shredder Area and Automobile Storage Area. Elevated lead and PCB concentrations in near surface soils that exceeded cleanup levels were excavated and disposed off site, i.e., “Hot Spot Removal.” A storm water control and treatment system has been installed in the area of SWMUs 4 and 5 to prevent untreated storm water from those areas from running into North Star Lake. Long-term ground water monitoring of SWMU 4 at well MW-4-1 is being conducted. In addition, institutional controls will be implemented at SWMUs 4 and 5.

e. SWMU 6 – Baghouse Area. Soil from areas that failed Toxicity Characteristic Leaching Procedure (TCLP) criteria were excavated and transported off site, except in the area covered by a half foot-thick concrete pad. This area was capped with remaining residual contamination being identified in a Notice filed with the property deed. Exposed soils in this area were sampled and analyzed for total cadmium, chromium, lead, mercury, nickel, and zinc. Concentrations of these metals are below cleanup criteria. No additional corrective measures are proposed for SWMU 6 at this time.

f. Flue Dust Landfill. A ground water pump and treat system was installed at the Flue Dust Landfill to prevent the further migration of hazardous constituents into North Star Lake and off site towards the Mississippi River. A long-term ground water monitoring program has been implemented to monitor the effectiveness of the system. In addition, institutional controls will be implemented at the Flue Dust Landfill.

C. CORRECTIVE MEASURES IMPLEMENTATION (CMI) – CURRENTLY UNDERWAY AT TIME OF PERMIT REISSUANCE

Corrective measures identified in Part VII.B.3, other than Institutional Controls have been implemented for all identified releases at the Facility, except for the recently identified sediment contamination in North Star Lake. Corrective measures implementation requirements that remain for identified releases at the Facility other than the contaminated sediments includes:

1. **Placement of Institutional Controls.** Upon completion of remedy implementation for contaminated sediments in North Star Lake, the Permittee shall submit to the MPCA for review and approval a draft environmental covenant and easement per the schedule in Part III.C., using the format approved by the MPCA. The environmental covenant shall contain restrictions that the MPCA determines are necessary to protect public health, welfare, or the environment from contamination that remains in place in North Star Lake and the SWMUs identified as requiring institutional controls in Part VII. B.3 of this permit. Within 30 days after the MPCA approval of the environmental covenant and easement, the Permittee shall file the environmental covenant and easement with the Ramsey County Recorder's Office on the Facility property records and submit to the MPCA a copy of the proof of filing within 30 days after filing.

2. **North Star Lake Sediment.** The Permittee is currently finalizing a CMI Work Plan for the removal of contaminated sediment in North Star Lake and has submitted a draft CMI Work Plan for MPCA review and approval. After approval of the CMI Work Plan, by the MPCA, the Permittee shall implement the CMI Work Plan in accordance with the approved schedule in the CMI Work Plan.

3. Reporting Requirements

a. The Permittee shall submit an Annual CMI Evaluation Report. Annual CMI Evaluation Reports shall be submitted by March 1 of each year until the Commissioner determines that these reports are no longer necessary. The reporting period for each CMI Evaluation Report is defined as the previous calendar year and shall include all work not reported in previous CMI Evaluation Reports. The CMI Evaluation Report shall include, but is not limited to, the items listed below for that reporting period.

- 1) A general, qualitative description of the work completed;
- 2) Summaries of progress of remedy implementation including:
 - a) The total amount of soil, sediment, or waste excavated.
 - b) A map identifying the areas remediated and the depth to which soil, sediment, or waste was excavated. The maps shall be prepared at a scale no smaller than one (1) inch equals 60 feet.

3) A description of how the excavated soil, sediment, or waste was managed, including a description of on-site management prior to transport and a description of off-site management.

4) An itemized summary of the cost expenditures associated with the remedial work for that construction season.

5) An evaluation of the existing cost estimate for all remediation not completed to date. Such a cost estimate shall be modified, if necessary, based on the costs incurred for the most recent remedial work;

6) Table summaries of all laboratory data and analytical sheets provided by the laboratory.

7) A status report on the areas for which remediation is being deferred or waste is managed in place that includes identification of the areas not yet remediated, a description of any maintenance performed and copies of the inspection logs completed during that reporting period, and estimated completion dates.

8) Problems encountered and actions taken or proposed to solve the problems;

9) Changes in personnel conducting or managing the remedial effort;

10) Projected work for the next reporting period;

11) Proposed modifications to the CMS as required under Part VII.D.4. below.

b. The Permittee shall submit periodic ground water monitoring and operation and maintenance reports on a frequency specified in Part III.C, Part VI.C.3 and Part II.E.6.n and o of this Permit.

c. All raw data, such as laboratory reports, drilling logs, and other supporting information generated from the remedial activities shall be maintained at the Facility during the term of this Permit, if any, including the term of the reissued permit, and shall be available for review by the MPCA at any time upon request.

4. Corrective Measures Modifications

a. Modifications Requested by the Commissioner. If the Commissioner, based on ground water monitoring, operation and maintenance, CMI Evaluation reports, or other submittals by the Permittee determines that the selected remedy is not providing adequate protection of human health or the environment, the Commissioner may require that the Permittee make modifications, including a requirement that alternate remedies be evaluated and implemented.

b. Modifications Requested by the Permittee. The Commissioner may approve changes to the corrective measures proposed by the Permittee to provide increased protection for human health and the environment based on a review of ground water monitoring, operation and maintenance, Annual CMI Evaluation Reports or other submittals by the Permittee.

D. CORRECTIVE ACTION REQUIREMENTS FOR CONTAMINATED SEDIMENT IN NORTH STAR LAKE

Corrective action for the contaminated sediments in North Star Lake shall be conducted in accordance with Part VII.E., F, G., H., I., J., K., and L., for newly identified releases.

1. Investigation. The Permittee has completed an investigation of the contaminated sediment in North Star Lake which has fully defined the extent of contamination in the sediment.

2. Corrective Measures Study. The Permittee has finalized a Corrective Measures Study (CMS) which is dated August 2011. The corrective action selected was removal and off-site disposal of contaminated sediment with a one foot clean sand cover over the dredged area.

3. Corrective Measures Implementation. Upon approval of the CMI Work Plan, the work plan shall be implemented in accordance with Part VII.L of this Permit and completed in accordance with the schedule in the approved CMI Work Plan.

E. GENERAL CORRECTIVE ACTION REQUIREMENTS

This section provides general requirements regarding all corrective action activities at the Facility. Corrective action work plans, investigation, reporting, and implementation shall be conducted in accordance with this section of the Permit and the RCRA Corrective Action Plan guidance document (U.S. EPA-RCRA Corrective Action Plan (CAP), Final, OSWER Directive 9902.3-2A, May 1994).

1. Quality Assurance Project Plan (QAPP). In accordance with Part III, within 60 days of reissuance of the Permit, the Permittee shall submit for MPCA review and approval a revised and updated Quality Assurance Project Plan (QAPP) or QAPP Addendum as necessary. The QAPP shall address sampling, field measurements, laboratory analyses, and other tasks conducted as part of RFI or CMI activities, or shall explicitly reference previously approved QAPPs. The Permittee shall prepare the QAPP and complete both field and laboratory procedures in accordance with the following documents:

a. USEPA Quality Assurance Project Plan requirements (USEPA QA/R-5) (<http://www.epa.gov/quality/qs-docs/r5-final.pdf>, USEPA Quality Assurance Project Plan guidance (USEPA QA/G-5) (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>) and EPA, Region V, Model RCRA QAPP Guidance.

b. Technical Enforcement Document (November 1992), OSWER Directive 9950.1.

c. Test methods for evaluating solid wastes (EPA/SW-846).

2. Submittals.

a. Failure to submit the information required in this Corrective Action Section, or falsification of any submitted information, is grounds for termination of this Permit. The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Commissioner required in this Corrective Action Section are signed in accordance with Minn. R. 7001.0060 and certified in accordance with Minn. R. 7001.0070 and 7001.0540. Two (2) copies of these plans, reports, notifications or other submissions shall be submitted to the MPCA staff designated to receive the Corrective Action submittals. If an MPCA staff is not designated, submittals should be sent to the Commissioner and sent by certified mail or hand delivered to:

Minnesota Pollution Control Agency
Land and Air Compliance Permit Section Manager
520 Lafayette Road
St. Paul, Minnesota 55155-4194

b. All plans and schedules required shall upon approval of the Commissioner, be incorporated by reference and become an enforceable part of this Permit. Any noncompliance with such approved plans and schedules shall be deemed to be noncompliance with this Permit. Extensions of the due dates for submittals may be granted by the Commissioner.

c. If the Commissioner determines that further action beyond those provided in this Corrective Action part or changes to those which are stated herein, are warranted, the Commissioner shall modify the Permit according to the Permit modification processes under Minn. R.7001.0190 and 7001.0730.

F. DISCOVERY OF NEWLY IDENTIFIED SWMU(s)

1. **Notification.** The Permittee shall notify the Commissioner in writing of any additional SWMU(s) (i.e. a unit not specifically identified in the RFA) discovered during the course of ground water monitoring, field investigations, environmental audits, or other means, NO LATER THAN FIFTEEN (15) CALENDAR DAYS after discovery.

2. **Request for SWMU Assessment Report.** After such notification, the Commissioner may request, in writing, that the Permittee prepare a SWMU Assessment Report NO LATER THAN SIXTY (60) CALENDAR DAYS from the Commissioner's request. At a minimum, the report shall provide the following information for each newly-identified SWMU:

- a. The location of the newly-identified SWMU in relation to other SWMUs.
- b. The type and function of the unit;
- c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);

- d. The period during which the unit was operated;
- e. The specific details on all wastes that have been or are being, or are expected to be, managed at the SWMU, to the extent available; and
- f. The results of any sampling and analysis indicating whether releases of hazardous wastes or hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

3. Investigation of newly-identified SWMUs. Base on the results of the SWMU Assessment Report, the Commissioner shall determine the need for further investigation at specific units. If the Commissioner determines that such investigation is needed, the Commissioner may require the Permittee to prepare a plan for such investigation similar to the RFI Work Plan identified under Part VII.H.1, and may require that corrective action be taken as the Commissioner determines is appropriate.

G. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASE AT SWMUS

The Permittee shall notify the Commissioner in writing, of any releases(s) of hazardous waste including hazardous constituents discovered by the Permittee or an agent or employee thereof, **NO LATER THAN FIFTEEN (15) CALENDAR DAYS AFTER DISCOVERY**. Such newly-discovered releases may be from any SWMU; existing or newly discovered. The Commissioner will require further investigation of the newly-identified release(s) in accordance with Minn. R. 7045.0485, and may require that corrective action be taken as appropriate.

H. RCRA FACILITY INVESTIGATION (RFI) – FOR NEWLY IDENTIFIED RELEASES

1. Work Plan. If the Commissioner determines that an RFI Work Plan is required based on the results of the SWMU Assessment Report required in Part VIII.F of this Permit, or newly discovered releases at the Facility, the Permittee shall submit an RFI Work Plan to address the releases of hazardous waste or hazardous constituents identified in Minn. R. 7045.0141 and media of concern. The RFI Work Plan must be developed and signed by a qualified geologist or environmental engineer, experienced in subsurface investigations as well as related geotechnical and environmental engineering work and approved by the Commissioner.

The RFI Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the releases of hazardous wastes or hazardous constituents from each area of contamination, and their actual or potential receptors. The RFI Work Plan shall detail all proposed activities to be conducted at the site, the schedule for implementing and completing the investigation, the qualifications of personnel performing or directing the investigation, and the overall management of the investigation.

The RFI Work Plan shall provide for collecting the following information:

a. Environmental Setting. The Permittee shall collect information to characterize the environmental setting at each area of contamination. The information shall allow the characterization of:

- 1) The soil and rock units above the water table in the vicinity of each area of contamination.
- 2) Surface water bodies and their sediments in the vicinity of the Facility, if applicable.
- 3) Hydrogeologic conditions at the Facility.

b. Source Characterization. The Permittee shall collect analytical data to completely characterize each area of contamination. Permittee shall document all procedures used in making the determinations below. This shall include quantification of the following characteristics at each area of contamination:

- 1) Source area characteristics:
 - a) Location of source area
 - b) Type of source area
 - c) Design features
 - d) Operating practices (past and present)
 - e) Period of operation
 - f) Age of source area
 - g) General physical conditions
- 2) Waste Characteristics
 - a) Type of waste (hazard classification, quantity, composition)
 - b) Physical and chemical characteristics
 - c) Migration and dispersal characteristics

c. Contamination Characterization. The Permittee shall collect analytical data to define the horizontal and vertical extent, origin, direction, and rate of movement of contaminants. Data shall include time and location of sampling, media sampled, concentrations found, and conditions during sampling. The Permittee shall address the following types of contamination at the site:

- 1) Soil contamination.
- 2) Surface water and sediment contamination.

3) Ground water contamination.

Specifically, the RFI Work Plan shall address:

- a) Number, location, and depth of wells and/or soil sampling locations;
- b) Any geographical techniques to be utilized in selecting sampling locations;
- c) Sampling number and frequency;
- d) Sampling procedures;
- e) Selection of monitoring parameters;
- f) Laboratory analytical procedures;
- g) Quality assurance procedures for sampling and laboratory analysis;
- h) Use of previously gathered monitoring data;
- i) Evaluation of site design and construction reports, and site operating procedures;
- j) Schedule for RFI implementation.

d. Potential Receptors. The Permittee shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the source. Chemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be needed. As appropriate, the following characteristics shall be identified:

- 1) Local uses and possible future uses of ground water;
- 2) Local uses and possible future uses of surface waters;
- 3) Human use of or access to the source and adjacent lands;
- 4) A description of the biota in surface water bodies on, adjacent to, or affected by the source.
- 5) A description of the ecology overlying and adjacent to the source.
- 6) A demographic profile of the people who use or have access to the source and adjacent land, including, but not limited to: age, sex, and sensitive subgroups.
- 7) A description of any endangered or threatened species near the source.

e. The RFI Work Plan shall include the development of the following project plans, which shall be prepared concurrently, including:

1) Project Management Plan. The Permittee shall prepare a Project Management Plan, which must include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan must also include a description of qualifications of

personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RFI.

2) Data Collection Quality Assurance Plan. The Permittee shall prepare a plan to conduct all monitoring procedures: sampling, field measurements and sample analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid and properly documented.

3) Data Management Plan. The Permittee shall develop a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements and project related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

4) Health and Safety Plan. The Permittee shall prepare a Facility Health and Safety Plan. The plan shall be consistent with the requirements of the National Institute of Occupational Safety and Health, the Occupational Health and Safety Administration, and the Environmental Protection Agency for hazardous waste site activities. The plan shall describe: resources available at the Facility to facilitate safety and emergency aid; hazards and evaluate risks; key personnel for site safety, work areas and levels of protection in work areas; procedures to control site access; decontamination procedures; site emergency procedures; emergency medical care for site specific problems; environmental surveillance program; and specify training required for responders.

5) Community Relations Plan. The Permittee shall prepare a plan for the dissemination of information to the public regarding investigation activities and results.

2. Implementation. NO LATER THAN (30) CALENDAR DAYS after receiving written approval from the Commissioner for the RFI Work Plan, the Permittee shall begin implementation of the RFI according to the schedules specified in the Work Plan.

3. Draft Report. In accordance with the time schedule in the approved RFI Work Plan, the Permittee shall submit to the MPCA the Draft RFI Report describing the results of the RFI. The Permittee shall also include in the report a recommendation as to whether corrective action is needed. The Draft RFI Report shall describe the procedures, methods, and results of Facility investigations, including information on the type and extent of contamination at the Facility, sources and migration pathways, and actual or potential receptors. The report shall present all information gathered under the approved RFI Work Plan. The report must contain adequate information to provide a basis for further corrective action decisions at the Facility.

4. Final Report. WITHIN THIRTY (30) DAYS after receipt of the Commissioner's comments on the Draft RFI Report, the Permittee shall submit the Final RFI Report. This report shall be developed in final format incorporating comments received on the Draft RFI Report and must be approved by the Commissioner.

I. INTERIM MEASURES – FOR NEWLY IDENTIFIED RELEASES

1. At the time of Permit reissuance, no specific interim measures have been identified or required by the Commissioner.

2. If during the courses of any activity initiated under this Corrective Action Section, the Commissioner determines that a newly identified release or potential release of hazardous waste or hazardous constituents from a SWMU poses a threat to human health or the environment, the Commissioner may require the Permittee to implement interim measures. The Permittee shall propose the specific action(s) that must be taken to implement the interim measures, including potential Permit modification and the schedule for implementing the required measures. The Commissioner shall notify the Permittee in writing of the requirement to perform such interim measures. The Commissioner shall modify the Permit according to the Permit modification procedure under Minn. R. 7001.0190 and 7001.0730 to incorporate such interim measures into the Permit.

The Permittee shall submit for the approval of the Commissioner an Interim Measures Plan within 30 days from notification of the requirement to perform interim measures.

3. The following factors may be considered by the Commissioner in determining the need for interim measures:

- a. Time required to develop and implement a final remedy;
- b. Actual and potential exposure of human and environmental receptors;
- c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;
- d. The potential for further degradation of the media absent interim measures;
- e. Presence of hazardous waste in SWMUs that may pose a threat of release;
- f. Presence and concentration of hazardous waste including hazardous constituents in soils that have the potential to migrate to ground water or surface water;
- g. Weather conditions that may affect the current levels of contamination;
- h. Risks of fire, explosion, or accident; and
- i. Other situations or conditions that may pose threats to human health and the environment.

J. CORRECTIVE MEASURES STUDY (CMS) – FOR NEWLY IDENTIFIED RELEASES

The purpose of a CMS is to develop and evaluate the corrective action alternative(s) and to recommend the corrective measure(s) to be taken. Based on the results of the RFI for newly identified releases, the MPCA may require a CMS. If so, the Commissioner shall notify Permittee in writing. This notice shall identify the hazardous constituents, which have exceeded action levels, as well as those, which have been determined to pose a threat to human health and the environment. The notification may also specify corrective measures to be evaluated by the Permittee during the CMS.

1. Work Plan. The Permittee shall submit a CMS Work Plan WITHIN SIXTY (60) CALENDAR DAYS from notification of the requirement to conduct a CMS. The CMS Work Plan must include, but is not limited to, the following:

- a. A list of alternative corrective measures to be evaluated;
- b. A definition of the objectives of the study;
- c. Schedules for conducting the study;
- d. A proposed format for presentation of information;
- e. Evaluation of performance, reliability, ease of implementation, and potential impacts of each corrective measure;
- f. Assessment of the effectiveness of each corrective measure in achieving adequate control of sources and cleanup of the contamination;
- g. Assessment of time required to begin and complete each corrective measure;
- h. Estimate of costs of corrective measure implementation; and
- i. Assessment of institutional requirements, such as state or local permit requirements, or other environmental or public health requirements which may affect implementation of the remedy.

The CMS Work Plan shall also address the following:

STANDARDS

- a. Protection of human health and the environment,
- b. Achievement of media cleanup standards,
- c. Control of the sources of releases,
- d. Compliance with standards for management of wastes.

FACTORS

- a. Long-term reliability and effectiveness,
- b. Reduction of toxicity, mobility, or volume of wastes,
- c. Short-term effectiveness,
- d. Implementability,
- e. Cost.

2. CMS Implementation. WITHIN THIRTY (30) CALENDAR DAYS after the Permittee has received written approval from the Commissioner of the CMS Work Plan, the Permittee shall begin to implement the CMS Work Plan. The CMS shall be completed according to the schedules in the approved CMS Work Plan.

3. CMS Final Report and Remedy Selection. WITHIN THIRTY (30) CALENDAR DAYS after completing the CMS, the Permittee shall submit to the MPCA for review and approval a CMS Final Report and Remedy Selection. The CMS Final Report shall summarize the results for each remedy studied and of any treatability study (bench scale and pilot test) conducted. The CMS Final Report shall present all information gathered under the approved CMS Work Plan and shall recommend the most feasible corrective measure(s).

K. PERMIT MODIFICATION FOR REMEDY – FOR NEWLY IDENTIFIED RELEASES

1. Pursuant to Minn. R. 7001.0190 and 7001.0730, based on the RFI final report, the CMS final report, and the selected remedy for newly identified releases, the Commissioner will modify this Permit. At that time, the Permit modification will specify the selected corrective action remedy and at a minimum include the following:

- a. Descriptions of all technical features of the remedy that are necessary for achieving the standards for the remedy established under Part VII.J.1 of this Permit, including the length of time for which compliance must be demonstrated at specified points of compliance;
- b. Development of the Corrective Measures Work Plan;
- c. All concentration levels of hazardous constituents in each medium that the remedy must achieve to be protective of human health and the environment;
- d. All requirements for achieving compliance with these concentration levels;
- e. All requirements for complying with the standards for management of wastes;
- f. Requirements for removal, decontamination, closure, or post closure of units, equipment, devices or structures that will be used to implement the remedy;
- g. A schedule for initiating and completing all major technical features and milestones of the remedy; and

- h. Requirements for submission of report and other information.

2. Within 120 calendar days after this Permit has been modified, the Permittee shall demonstrate financial assurance acceptable to the Commissioner for completing the approved remedy.

L. CORRECTIVE MEASURES IMPLEMENTATION (CMI) – FOR NEWLY IDENTIFIED RELEASES

1. **CMI Work Plan.** Regarding all newly identified releases, WITHIN SIXTY (60) CALENDAR DAYS after the MPCA approves the CMS, the Permittee shall prepare and submit to the MPCA a CMI Work Plan that includes detailed construction plans and specifications to implement the approved corrective measures. The CMI Work Plan will be subject to review and approval by the Commissioner in accordance with Part IX of this Permit. CMI Work Plans must include, but are not limited to, the following:

- a. Design Plans and Construction Specifications for all equipment and processes;
- b. Long-term Operation and Maintenance (O&M) plan;
- c. Project schedule;
- d. Cost estimate;
- e. Quality assurance (QA) measures, construction QA plan;
- f. Health and Safety Plan (HSP);
- g. Method to evaluate effectiveness of corrective measures; and
- h. Cleanup goals.

2. **CMI.** WITHIN THIRTY (30) CALENDAR DAYS of approval of the CMI Work Plan the Permittee shall implement the corrective measures. The CMI work shall be completed according to the schedules in the approved CMI Work Plan.

3. **Draft CMI Report.** The Permittee shall submit to the Commissioner a Draft CMI Report WITHIN FORTY FIVE (45) days after completion of the construction phase. The draft report shall include information such as field modifications to the approved CMI plans and specifications, field installation reports, daily inspections, as-built shop drawings, total amounts of waste, soils, or water treated or removed from site.

4. **Final CMI Report.** The Permittee shall submit to the Commissioner a revised (if required by the MPCA) Final CMI report WITHIN THIRTY (30) CALENDAR DAYS after receipt of comments on the Draft CMI report.

PART VIII. GENERAL CONDITIONS

A. NO RELEASE FROM LIABILITY

Issuance of this Permit by the MPCA does not release the Permittee from any liability, penalty, or duty imposed by Minnesota or federal statutes, rules or local ordinances, except the obligation to obtain this Permit.

B. THIRD PARTY LIABILITY

Issuance of this Permit by the MPCA does not release the Permittee from or affect any liability which either of the Permittee may incur as a result of the operation of the Permitted Facility.

C. FUTURE RULES

This Permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent or affect the enforcement of these rules, standards, or any orders against the Permittee.

D. PROPERTY RIGHTS

This Permit does not convey a property right or an exclusive privilege.

E. OBLIGATION TO ENFORCE

This Permit does not obligate the MPCA or the Commissioner to enforce laws, rules, or plans.

F. LIABILITY/RESPONSIBILITY

This Permit authorizes the Permittee to perform the activities described in this Permit under the conditions of this Permit. In issuing this Permit, the State and Commissioner assume no responsibility for injury to persons or damage to property or the environment caused by the activities of the Permittee including those activities authorized, directed, or undertaken under this Permit. To the extent the State and Commissioner may be liable for the activities of State employees, that liability is explicitly limited to that provided in the Tort Claims Act, Minn. Stat. § 3.736.

G. DEFENSE UNDER OTHER STATUTES AND RULES

Compliance with the terms of this Permit does not constitute a defense to any action brought under Section 7003 of the Resource Conservation and Recovery Act, Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), the Minnesota Environmental Response and

Liability Act of 1983 (Minn. Stat. ch. 115B), Minn. Stat. chs. 116, 400, 473, or any other Minnesota or Federal statutes, rules or regulations, or local ordinances.

H. MINIMUM STANDARDS

This Permit establishes minimum standards for the operation of the Permitted Facility. Nothing in this Permit precludes the Permittee from taking additional steps to protect the public health or welfare or the environment so long as these additional steps are not inconsistent with the terms and conditions of this Permit. The Permittee is solely responsible for ensuring that the Permitted Facility adequately safeguards public health and welfare and the environment.

I. DUTY TO COMPLY

The Permittee shall perform the actions and conduct the activity authorized by this Permit in accordance with the plans and specifications approved by the MPCA and in compliance with the conditions of this Permit and applicable local, state, and federal hazardous waste laws, rules, ordinances, and regulations.

J. FALSE STATEMENTS

The Permittee shall not knowingly make a false or misleading statement, representation, or certification in a record, report, plan or other document submitted to the MPCA or to the Commissioner. The Permittee shall IMMEDIATELY upon discovery report to the Commissioner an error or omission in any such record, report, plan, or other document.

K. DUTY TO PROVIDE INFORMATION

The Permittee shall, when requested by the Commissioner, submit within a reasonable time the information and reports that are relevant to the control of pollution, regarding the construction or operation of the Facility covered by this Permit, or regarding the conduct and the activity covered by this Permit, in accordance with Minn. Stat. §§ 115.04 and 116.07, subd. 9.

L. INSPECTION AND ENTRY

When authorized by Minn. Stat. §§ 115.04, 115B.17, subd. 4, or 116.091, and upon presentation of proper credentials, the MPCA, or an authorized employee or agent of the MPCA, shall be allowed by the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the Facility covered by this Permit or pertaining to the activity covered by this Permit.

M. DUTY TO MITIGATE

If the Permittee discovers, through any means, including notification by the MPCA, that noncompliance with a condition of the Permit has occurred, the Permittee shall promptly take all reasonable steps to minimize the adverse impacts on human health, public drinking water supplies, or the environment resulting from the noncompliance.

N. BANKRUPTCY

1. Notification of Bankruptcy. The Permittee shall notify the Commissioner by certified mail of the commencement of a voluntary or involuntary proceeding under United States Code, Title 11, Bankruptcy, naming the Permittee as debtor, **WITHIN TEN (10) DAYS** after commencement of the proceeding.

2. Incapacity of Financial Assurance and Liability Coverage. The Permittee currently meets the requirements regarding financial assurance for post closure care and corrective action and liability coverage through the use of financial test and corporate guarantee by Gerdau Ameristeel Corporation. The Permittee shall be deemed to be without such required financial assurance and liability coverage in the event of bankruptcy proceedings or any other change in circumstances affecting the corporate guarantor which impair the guarantor's ability to provide the required financial assurance or liability coverage. In such event, the Permittee shall have 60 days, upon notifying the MPCA of the bankruptcy proceeding, to obtain other means of financial assurance and liability coverage. Failure to do so shall constitute a violation of this Permit.

O. MODIFICATION, REVOCATION, AND REISSUANCE OF THIS PERMIT

This Permit may be modified, revoked and reissued, or revoked without reissuance for cause, as specified in Minn. R. 7001.0170 to 7001.0190 and Minn. R. 7001.0730.

The filing of a request for a Permit Modification, Revocation and Reissuance, or Revocation without Reissuance, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or affect the applicability or enforceability of a Permit condition.

Requests for modification of plans or specifications integral to this Permit must be approved by the Commissioner prior to implementing the requested change.

P. OPERATION DURING REISSUANCE PERIOD

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete Application for reissuance of the Permit at least 180 calendar days before this Permit expires, unless written permission for a later date has been granted by the Commissioner.

Q. CONTINUATION OF EXPIRED PERMIT

This Permit will remain in effect beyond the Permit's expiration date if the Permittee has submitted a timely and complete Application for reissuance of the Permit provided that the Commissioner determines, based on available information, that all of the following are true:

1. The Permittee is in compliance with the terms and conditions of the expired Permit;

2. The Permittee continues at all times to work diligently and in good faith to meet the requirements and satisfy the concerns of the Commissioner with respect to the Permit Application; and

3. The Commissioner, through no fault of the Permittee, has not taken final action on the Application before the expiration date of this Permit.

R. TRANSFER OF PERMITS

This Permit is not transferable to any person without the express written approval of the MPCA, and then only after compliance with the requirements of Minn. R. 7001.0190 and 7045.0452, subp. 3. item D. A party to whom this Permit has been transferred shall comply with the terms and conditions of this Permit.

S. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the Application of any provision of this Permit to any circumstance is held invalid, the Application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

PART IX. REVIEW OF SUBMITTALS AND EXTENSION OF SCHEDULES

A. REVIEW OF SUBMITTALS

The review of each submittal, document, report, or schedule (collectively referred to hereafter as "submittal") which is required to be submitted to the Commissioner for review and approval shall be as follows:

1. The Commissioner shall review each submittal made by the Permittee as required by this Permit. In the event the submittal is approved, it shall become an integral and enforceable part of this Permit. If the submittal is disapproved in whole or part, the Commissioner shall notify the Permittee in writing and shall explain the amendments or revisions that are necessary to bring the submittal into compliance with this Permit.

2. Within 30 calendar days of receipt of any notice of disapproval or modification, or on the first working day thereafter (if said 30th day fell on a Sunday or Holiday) the Permittee shall:

- a. Submit revisions to correct inadequacies that led to disapproval, or,
- b. State in writing the reasons why the submittal, as originally submitted, should be approved.

The Permittee may have longer than 30 days to respond if the longer time period is specified in the Commissioner's review letter referenced in paragraph 1.

3. If, within 30 calendar days from the date of the Permittee submission under paragraph 2, above, the parties have not reconciled all issues with respect to the submittal, the Commissioner shall inform the Permittee of the second disapproval of the submittal and whether in the Commissioner's view, the Permittee may be in violation of the Permit. In such event, the matter may be referred for enforcement action.

4. The Commissioner and the Permittee shall provide the opportunity to consult with each other during the review of submittals or modifications.

B. EXTENSION OF SCHEDULES

All time extensions must be requested by the Permittee in writing. The requests shall specify the reasons why the extension is needed. Extensions shall only be granted for such a period of time as the Commissioner determines is reasonable under the circumstances. A requested extension shall not be effective until approved by the Commissioner. The burden shall be on the Permittee to demonstrate to the satisfaction of the Commissioner that the request for the extension has been submitted in a timely fashion and that good cause exists for granting the extension and that the extension shall have no adverse effect upon human health or the environment.

Extension of compliance schedule dates provided in this Permit may be granted if requests are submitted in a timely fashion and good cause exists for granting the extension, and if the extension would have no adverse effect upon human health or the environment.

APPENDICES

APPENDIX I – FACILITY MAPS

LOCATION FACILITY BOUNDARY MAP FIGURE 1

SWMU LDF AND WELL LAYOUT MAP FIGURE 3

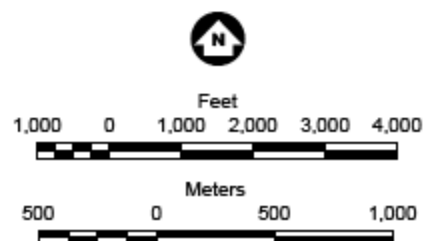
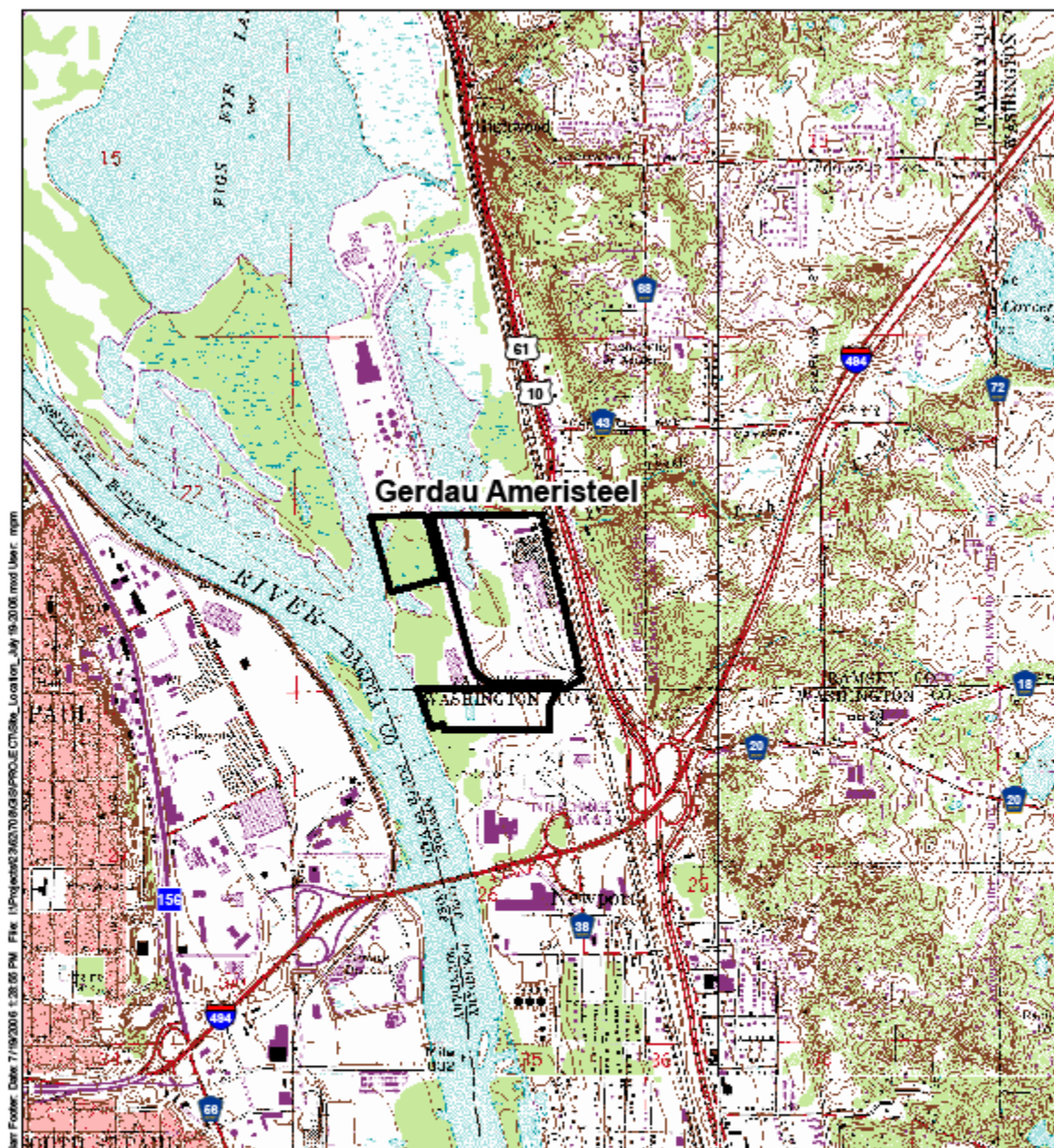
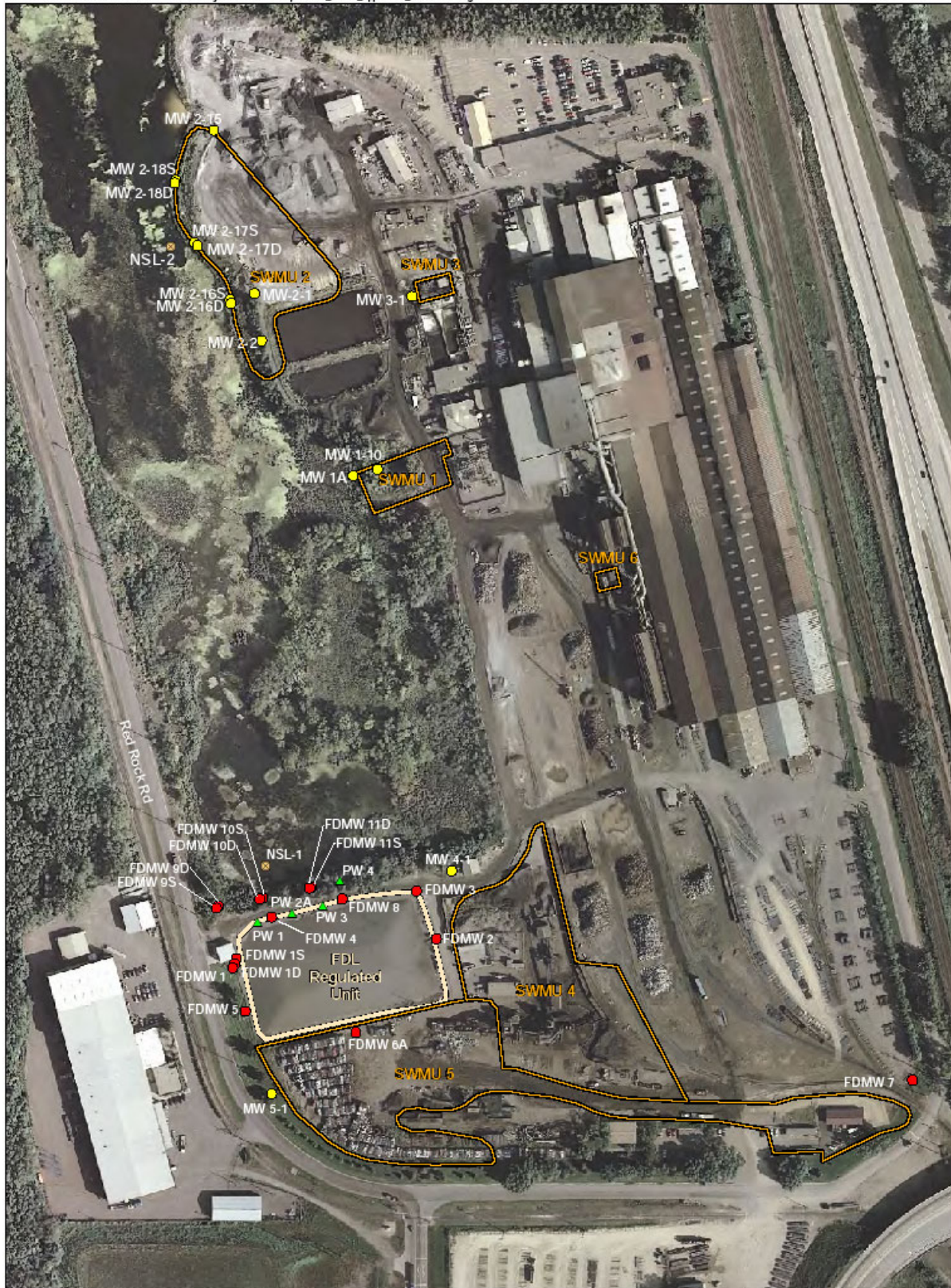


Figure 1
LOCATION MAP
Gerdau Ameristeel
St. Paul, Minnesota



Imagery: Aerials Express 2009

- FDL Monitoring Well
- SWMU Monitoring Well
- ▲ Pump-Out Well
- Surface Water Sample Location
- Solid Waste Management Unit (SWMU)
- Flue Dust Landfill Regulated Unit (FDL)

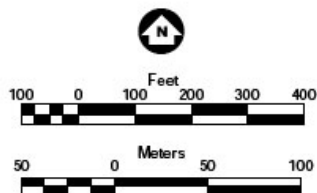


Figure 3
MONITORING LOCATIONS
Gerdau Ameristeel
St. Paul, Minnesota