

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN**

UNITED STATES OF AMERICA,

Plaintiff,

v.

GERDAU SPECIALTY STEEL, N.A.,
MICHIGAN,

Defendant.

Civil Action No. 18-12228

CONSENT DECREE

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CONSENT DECREE

WHEREAS, Plaintiff United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“U.S. EPA”), has filed a complaint in this action (“Complaint”) concurrently with this Consent Decree alleging that the Defendant, Gerdau Specialty Steel, North America, (“Gerdau”) violated: (1) the National Emission Standards for Hazardous Air Pollutants (“NESHAP”) provisions of the Clean Air Act (“CAA” or “Act”), 42 U.S.C. § 7412, and the NESHAP regulations codified at 40 C.F.R. Part 63, Subpart YYYYY; and (2) Gerdau’s Title V Operating Permit No. MI-ROP-B4306-2009;

WHEREAS, the Complaint alleges that the above violations took place at the steel mini mill at 3100 Brooklyn Road in Jackson, Michigan, owned and operated by Gerdau (“Facility”);

WHEREAS, Gerdau does not admit any liability to the United States arising out of the transactions or occurrences alleged in the Complaint;

WHEREAS, the United States and Gerdau (the “Parties”) recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345, 1355, 1362, and 1367, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and over the Parties. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because the violations alleged in the Complaint are alleged to have occurred in, and Gerdau conducts business in, this judicial district. Gerdau consents to this Court’s jurisdiction over this Consent Decree and any action to enforce this Consent Decree, and to venue in this judicial district.

2. For purposes of this Consent Decree, Gerdau agrees that the Complaint states claims upon which relief may be granted pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States and upon Gerdau and any successors, assigns, or other entities or persons otherwise bound by law.

4. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Gerdau of its obligation to ensure that the terms of the Consent Decree are implemented. At least 30 Days prior to such transfer, Gerdau shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed relevant provisions of the transfer/sale agreement that obligate the transferee to the requirements of this Consent Decree, to EPA Region 5, the United States Attorney for the Eastern District of Michigan, and the United States Department of Justice, in accordance with Section XIII (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Consent Decree.

5. Gerdau shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. Gerdau shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

6. In any action to enforce this Consent Decree, Gerdau shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

7. Terms used in this Consent Decree that are defined in the CAA or in federal and state regulations promulgated pursuant to the CAA shall have the meaning assigned to them in the CAA or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, including attached appendices, the following definitions shall apply:

- a. “ACFM” shall mean actual cubic feet per minute.
- b. “Caster” shall mean the piece of equipment used to convert molten steel into a semi-finished billet for subsequent finishing.
- c. “Caster Roof Monitor” shall mean the opening in the Melt Shop located above the Caster designed for natural ventilation.
- d. “Caster Roof Monitor Capture and Control System” shall mean a system designed to capture emissions currently exhausted from the Caster Roof Monitor and route those emissions to the New Baghouse.
- e. “Charging” shall mean the phase of the steel production cycle in which iron and steel scrap or other materials are added into the top of either Electric Arc Furnace.

f. “Complaint” shall mean the complaint filed by the United States in this action.

g. “Consent Decree” or “Decree” shall mean this Consent Decree and all appendices hereto.

h. “Day” shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

i. “Effective Date” shall have the definition provided in Section XIV (Effective Date).

j. “Electric Arc Furnace” or “EAF” shall mean a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes. An electric arc furnace consists of the furnace shell, roof, and the transformer. There are two EAFs at the Facility, described as EAF No. 1 and EAF No. 2 in the Permit.

k. “EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies.

l. “Existing Baghouse” shall mean the existing air pollution control device at the Facility that uses fabric filter bags for the removal of Particulate Matter and PM₁₀, referred to as Baghouse No. 3 in the Permit.

m. “Facility” shall mean the steel mini mill at 3100 Brooklyn Road in Jackson, Michigan, owned and operated by Gerdau.

n. “Hold Fire” shall mean a portion of the melting phase of the steel production cycle during which the burner is operated in stand-by mode and supplied with a limited and controlled flow of fuel and/or oxidant. This mode is used to prevent burner plugging from splashing molten steel or slag.

o. “Malfunction Abatement Plan” shall mean a written document prepared by Gerdau to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation.

p. “Melt Shop” shall mean the building that houses EAF No. 1 and EAF No. 2.

q. “New Baghouse” shall mean the air pollution control device at the Facility that uses fabric filter bags for the removal of Particulate Matter and PM₁₀ from air routed from the Caster Roof Monitor to the new device. The New Baghouse has been designated as Baghouse No. 4.

r. “Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral.

s. “Particulate matter” or “PM” emissions shall mean all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method, specified in 40 C.F.R. Chapter 1, or by a test method specified in the Michigan State Implementation Plan.

t. “Parties” shall mean the United States and Gerdau.

u. “Permit” shall mean Gerdau’s Title V Permit, No. MI-ROP-B4306-2015, and all revisions, modifications, renewals, and successors to this permit.

v. “Section” shall mean a portion of this Consent Decree that has a heading identified by an upper case Roman numeral.

w. “Tapping” shall mean the phase of the steel production cycle during which the EAF pours molten steel into a ladle.

x. “United States” shall mean the United States of America, acting on behalf of EPA.

IV. COMPLIANCE REQUIREMENTS

A. Emissions Minimization and Interim Measures

8. Emissions Minimization. At all times, Gerdau shall operate and maintain the EAFs and associated air pollution control equipment to minimize emissions through the implementation of good air pollution control practices as required by 40 C.F.R. § 63.6(e)(1)(i).

9. Interim Measures

a. Dampers. Between the Effective Date and the date of completion of the Caster Roof Monitor Capture and Control System, Gerdau shall follow the referenced damper control logic at EAF Nos. 1 and 2 as shown below to optimize exhaust rates and maximize capture. Gerdau may modify the damper control logic as necessary to address operational issues while continuing to meet the required emission limits. If Gerdau modifies the damper control logic, within forty-eight hours after making the modifications, Gerdau shall perform a Method 9 opacity reading at the exterior of the Melt Shop for a minimum duration of three hours.

FURNACE DAMPER CONTROL SETTINGS

Date: 08/04/2017							
#1 FURNACE							
MODE No.	Furnace Cojet Mode	Baghouse Mode	Side Draft Damper	Side Draft DP Range	Charge Damper (east)	Tap Damper (west)	Center Damper
#1	HOLD FIRE	HEATING	D.P. Controlled	0.2 - 2.0	OPEN	CLOSED	50%
#2	CHARGE FIRE	CHARGE	10 - 20%	None	OPEN	OPEN	100%
#3	HOT FIRE 1	HEATING	D.P. Controlled	0.5 - 2.0	OPEN	CLOSED	75%
#4	HOT FIRE 2	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#5	HOT FIRE 3	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#6	LANCE 1	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#7	LANCE 2	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#8	LANCE 3	SLAGGING	D.P. Controlled	1.0 - 3.5	OPEN	CLOSED	0%
#9	IDLE	IDLE	45 - 55%	None	OPEN	CLOSED	75%
#10	TAPPING	TAPPING	10 - 20%	None	OPEN	OPEN	100%
#2 FURNACE							
MODE No.	Furnace Cojet Mode	Baghouse Mode	Side Draft Damper	Side Draft DP Range	Charge Damper (east)	Tap Damper (west)	Center Damper
#1	HOLD FIRE	HEATING	D.P. Controlled	0.5 - 2.0	OPEN	CLOSED	50%
#2	CHARGE FIRE	CHARGE	10 - 20%	None	OPEN	OPEN	100%
#3	HOT FIRE 1	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#4	HOT FIRE 2	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#5	HOT FIRE 3	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#6	LANCE 1	HEATING	D.P. Controlled	0.5 - 2.0	OPEN	CLOSED	75%
#7	LANCE 2	HEATING	D.P. Controlled	1.0 - 2.0	OPEN	CLOSED	75%
#8	LANCE 3	SLAGGING	D.P. Controlled	1.0 - 3.5	OPEN	CLOSED	0%
#9	IDLE	IDLE	45 - 55%	None	OPEN	CLOSED	75%
#10	TAPPING	TAPPING	10 - 20%	None	OPEN	OPEN	100%

b. Door Closures. Between the Effective Date and the date of completion of the Caster Roof Monitor Capture and Control System, Gerdau shall implement interim measures to improve capture of emissions at EAF No. 1 and EAF No. 2 and to minimize drift of emissions from the area of the Facility containing the EAFs toward the area of the Facility containing the Caster in the following manner:

- i. When wind conditions are from the northwest at over 10 miles per hour (mph) during Tapping stages at EAF No. 1, Gerdau shall close doors 18, 19, 20, and 25 in the Melt Shop for the duration of that stage.
- ii. Gerdau Melt Shop personnel shall monitor weather conditions prior to Tapping of EAF No. 1 through the www.forecast.weather.gov website covering the Jackson County Airport. If northwest winds are indicated at over 10 mph, Gerdau shall:
 1. Close the charge bucket doors (#18 and #19) prior to Tapping of EAF No. 1.
 2. Close the scrap loader door (#20) prior to Tapping of EAF No. 1.

3. Close the EAF electrode door (#25) prior to Tapping of EAF No. 1.
 4. Gerdau will have the doors shut when winds exceed 10 mph out of the northwest, however during certain times of the operation, Gerdau may open either Door #18 or Door #19 to receive scrap for the next heat and then immediately shut the door to minimize drift inside the Melt Shop.
- iii. By the Effective Date, Gerdau shall train all employees responsible for Melt Shop operations on the procedures for implementation of the door closures required by Paragraph 9.b.
 - iv. Gerdau shall use a checklist to verify and record that the required doors are closed prior to initiating Tapping, as required by Paragraph 9.b.

B. Capture and Control System Requirements

10. Baghouse PM Limits. Gerdau shall not discharge or cause to be discharged into the atmosphere PM emissions from either the New or Existing Baghouse in excess of 0.0052 grains per dry standard cubic foot.

11. Melt Shop Opacity. Beginning October 1, 2018, Gerdau shall limit emissions from the Melt Shop to a six-minute average of 6% opacity.

12. Caster Roof Monitor Capture and Control System. By September 1, 2018, Gerdau shall install, operate, and maintain the Caster Roof Monitor Capture and Control System. The system shall consist of closure of the Caster Roof Monitor and routing of emissions to the New Baghouse. Gerdau shall install the Caster Roof Monitor Capture and Control System consistent with the design plan attached to this Consent Decree as Appendix A. In the event that the Melt Shop is temporarily (for at least two consecutive months) or permanently shut down, the September 1, 2018 deadline in this Paragraph shall be extended for a corresponding amount of time.

13. First Performance Test.

a. By July 31, 2018, Gerdau shall submit to EPA for review and approval pursuant to Section IV.E a proposed stack testing protocol that describes the methods and procedures for an initial performance test. The initial performance test shall include concurrent PM tests at both the New and Existing Baghouses, in accordance with Methods 1-4 and 5; concurrent Method 9 opacity readings at both Baghouses; and concurrent Method 9 opacity readings at the Melt Shop. With respect to the Existing Baghouse, the PM stack test and concurrent opacity readings shall be conducted using three 3-hour test runs with a three fan operation and three 3-hour runs with a two fan operation while operating under representative (normal) conditions. The test runs shall include a full tap-tap cycle at EAF No. 1 and EAF No. 2. A PM stack test for the Existing Baghouse conducted pursuant to compliance testing required

under the Permit shall satisfy the requirements for the Existing Baghouse PM stack test under this Paragraph.

- b. Within 180 days after Gerdau receives EPA approval of its stack testing protocol, Gerdau shall submit to EPA a report of the first performance testing, including:
 - i. a summary of results, including operations under both two and three fan operating scenarios;
 - ii. a description of Facility operations and throughput;
 - iii. identification of sampling and analytical procedures; and
 - iv. all data from the testing, including the PM emission rate in grains per dry standard cubic foot and opacity data.

14. Second Performance Test. Between January 1, 2021, and September 31, 2021, Gerdau shall conduct a second performance test. The second performance test shall consist of a PM performance test at the New Baghouse, in accordance with Methods 1-4 and 5; concurrent Method 9 opacity readings at the New Baghouse; and concurrent Method 9 opacity readings at the Melt Shop. The test runs shall include a full tap-tap cycle at EAF No. 1 and EAF No. 2.

- a. By November 30, 2021, Gerdau shall submit to EPA a report of the second performance testing, including:
 - i. a summary of results;
 - ii. a description of Facility operations and throughput;
 - iii. identification of sampling and analytical procedures; and
 - iv. all data from the testing, including the PM emission rate in grains per dry standard cubic foot and opacity data.

15. Two Fan Operation.

a. Unless and until Gerdau successfully demonstrates compliance with the opacity limit in Paragraph 11 during a two fan operation pursuant to Paragraph 13, Gerdau shall not simultaneously operate EAF No. 1 and No. 2 when only two Existing Baghouse fans are online. If only two fans are operating and either EAF No. 1 and/or EAF No. 2 contains molten metal, Gerdau shall operate in a staggered operation mode, with power to only one EAF at a time, until the heat at EAF No. 1 and No. 2 can be tapped and the EAFs are emptied.

- b. Two fan operation shall consist of the following:
 - i. At the beginning of the scenario, Gerdau shall operate in a staggered operation mode, with power to only one EAF at a time, until the heat at

EAF No. 1 can be tapped and the EAF emptied.

- ii. Once the heat at EAF No. 1 is tapped and EAF No. 1 is emptied, Gerdau shall operate EAF No. 2 normally, with the two remaining fans in operation at the Existing Baghouse, and shall modify dampers to isolate EAF No. 2 for the duration of the scenario. EAF No. 1 shall remain idled until all three Existing Baghouse fans are back online and in operation.

- c. If Gerdau successfully demonstrates compliance with the opacity limit during a two fan operation pursuant to Paragraph 13, Gerdau shall conduct visible emission readings, followed by opacity readings, in accordance with Paragraph 20, twice per day during two fan operation. If Gerdau does not successfully demonstrate compliance with the opacity limit during a two fan operation pursuant to Paragraph 13, Gerdau shall operate in accordance with Paragraph 15 at all times during two fan operation.

C. Monitoring, Recordkeeping, and Reporting Requirements

16. Preventative Maintenance and Inspections

- a. On a monthly basis, Gerdau shall inspect the exterior building and ductwork from the east, south, and west side of the Facility for signs of holes, wear, or other degradation that could result in visible emissions. Gerdau must document and maintain records in connection with the monthly inspections, which include the following: (1) the inspection date and name of inspector; (2) the identification of any holes, wear, or other degradation observed during the inspection; and (3) whether any visible emissions were observed during the inspection. Gerdau shall address any holes, wear, or other degradation that is resulting, or could result, in visible emissions as soon as possible, and shall document and maintain records of any corrective actions that were taken.

- b. Gerdau shall timely conduct all inspections in accordance with the procedures delineated in Table 3 of its revised Malfunction Abatement Plan, dated August 11, 2017. Gerdau shall maintain records of inspection dates, times, performed preventative maintenance, identified issues, and any corrective actions taken (date, time, and description).

- c. By September 1, 2018, Gerdau shall incorporate into its Malfunction Abatement Plan: (1) the requirements in 16.a; (2) quarterly inspections of all associated ductwork for signs of internal build-up using infrared technology; and (3) the preventative maintenance tasks associated with the Caster Roof Monitor Capture and Control System, in accordance with manufacturer's recommendations. Gerdau shall maintain records for all additional inspections, as described in 16.b.

17. Stack Testing. Gerdau shall timely conduct stack testing, as required by the Permit.

18. Computerized Maintenance Management System. Gerdau shall utilize its Computerized Maintenance Management System for documenting inspections and associated

deadlines; stack testing and associated deadlines; and maintenance activities associated with the Existing Baghouse and the Caster Roof Monitor Capture and Control System.

19. Pressure Drop.

a. With respect to the Existing Baghouse, Gerdau shall measure pressure drop in accordance with the Permit. Records will be kept on file for five years. Gerdau shall operate the Existing Baghouse in a pressure drop range of three inches to ten inches of water column. Gerdau shall update the facility Compliance Assurance Monitoring Plan and Malfunction Abatement Plan to include the requirements of this Paragraph.

20. Visible Emissions Observations.

a. Beginning October 1, 2018, Gerdau shall conduct weekly visible emission observations at the Melt Shop, in accordance with EPA Method 22, for a minimum of ten minutes when at least one EAF is operating. At least two of the weekly Melt Shop visible emission observations per month shall cover a full Tapping cycle at EAF No. 1. Gerdau shall conduct the observations from a Method 9 sun compliant location where both the EAF portion and the Caster portion of the Melt Shop are visible.

b. If visible emissions are observed, Gerdau shall immediately conduct a Method 9 opacity reading for a minimum of six minutes.

c. Notwithstanding the results of the opacity reading pursuant to Paragraph 20.b, if visible emissions are observed, Gerdau shall investigate the cause of the emissions and implement corrective actions, if any, to stop the emissions as soon as possible. Gerdau shall maintain records of the cause and corrective actions, if any; the date the cause was identified; and the date the corrective actions, if any, were implemented. Once the investigation is complete and corrective actions, if any, have been implemented, Gerdau shall conduct another set of Method 22 or Method 9 readings, if applicable, to verify that the corrective actions have addressed the visible emissions.

d. Gerdau shall maintain a record of all visible emissions observations, including the start time of observations, end time of observations, whether any visible emissions were observed, and the results of any Method 9 opacity readings.

21. Notification of Compliance Status. Within 180 days after Gerdau receives EPA approval of stack testing results, Gerdau shall submit to EPA a Notification of Compliance Status in accordance with the NESHAP Subpart YYYYYY.

D. Permits

22. Where any compliance obligation under this Section requires Gerdau to obtain a federal, state, or local permit or approval, Gerdau shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Gerdau may seek relief under the provisions of Section VIII (Force Majeure) for any delay in the performance of

any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Gerdau has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

23. Applications for Permits Incorporating the Requirements in Section IV.

a. By August 12, 2019, Gerdau shall submit to permitting authorities in the State of Michigan complete applications, amendments and/or supplements to incorporate as “applicable requirements” the following limits and standards into a non-Title V, federally enforceable permit to install that will survive termination of this Decree:

- i. The requirement to limit emissions from the Melt Shop to a six-minute average of 6% opacity, as required by Paragraph 11;
- ii. The requirement to operate and maintain the Caster Roof Monitor Capture and Control System, as required by Paragraph 12;
- iii. The requirement to operate in accordance with the operational scenarios in Subparagraph 15.b or Subparagraph 15.a that demonstrate compliance with the opacity readings pursuant to Paragraph 13. Gerdau shall identify in the application the operational scenarios and include the results of opacity readings pursuant to Paragraph 13;
- iv. The requirement to conduct inspections, maintain records to document inspections, and address issues, as required by Paragraph 16;
- v. The requirement to operate the Existing Baghouse in a pressure drop range of three inches to ten inches of water column, as required by Paragraph 19; and
- vi. The requirement to conduct weekly Melt Shop visible emissions observations and Method 9 opacity observations, when necessary, and maintain records, as required by Paragraph 20.

b. Pursuant to the timeframes required by MDEQ’s approved Part 70 program, in accordance with 40 C.F.R. Part 70 and R 336.1211 – 336.1217, Gerdau shall submit to permitting authorities in the State of Michigan an application to modify, amend, revise, reopen, or renew, as applicable, its Title V Permit for the Facility to incorporate the limits and standards identified in Subparagraph 23.a.

E. Approval of Deliverables

24. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Consent Decree, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

25. If the submission is approved pursuant to Paragraph 24, Gerdau shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part pursuant to Paragraph 24(b) or (c), Gerdau shall, upon written direction from EPA, take all actions required by the approved plan, report, or other item that EPA determines are technically severable from any disapproved portions, subject to Gerdau's right to dispute only the specified conditions or the disapproved portions, under Section IX (Dispute Resolution).

26. If the submission is disapproved in whole or in part pursuant to Paragraph 24(c) or (d), Gerdau shall, within 45 days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Gerdau shall proceed in accordance with the preceding Paragraph.

27. Any stipulated penalties applicable to the original submission, as provided in Section VII, shall accrue during the 45 day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Gerdau's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable, subject to Gerdau's right to invoke Dispute Resolution (Section IX), notwithstanding any subsequent resubmission.

28. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA may again require Gerdau to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself correct any deficiencies, subject to Gerdau's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties as provided in the preceding Paragraphs.

V. CIVIL PENALTY

29. By no later than 30 days after the Effective Date of this Consent Decree, Gerdau shall pay to the United States a civil penalty in the amount of \$325,000, together with interest accruing from the date on which the Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging. Gerdau shall pay the civil penalty by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to Gerdau, following the entry of the Decree, by the Financial Litigation Unit ("FLU") of the U.S. Attorney's Office for the Eastern District of Michigan. The costs of such EFT shall be Gerdau's responsibility. The payment instructions provided by the FLU will include a Consolidated Debt Collection System ("CDCS") number, which Gerdau shall use to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to:

Environmental Manager
Gerdau Special Steel—Jackson Mill

3100 Brooklyn Road
Jackson, MI 49203
Ph: 734 384 6544

Gerdau may change the individual to receive payment instructions on its behalf by providing written notice of such change to the United States and EPA in accordance with Section XIII (Notices). At the time of payment, Gerdau shall send a copy of the EFT authorization form, the EFT transaction record, and a transmittal letter: (i) to EPA via email at cinwd_acctsreceivable@epa.gov or via regular mail at EPA Cincinnati Finance Office, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268 and (ii) to the United States via email or regular mail in accordance with Section XIII (Notices). The transmittal letter shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States v. Gerdau Specialty Steel, and shall reference the civil action number, CDCS number, and DOJ case number 90-5-2-1-11453.

30. Gerdau shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section VII (Stipulated Penalties) in calculating its federal income tax.

VI. REPORTING REQUIREMENTS

31. Progress Reports. By July 31 and January 31 of each year after the Effective Date of this Consent Decree until termination of this Consent Decree, Gerdau shall submit to EPA a progress report regarding the implementation of the requirements of this Decree in the preceding six months (“Progress Report”). The Progress Report shall include:

a. A statement setting forth the deadlines and other terms that Gerdau is or was required to meet by the Consent Decree since the date of the last Progress Report, whether and to what extent Gerdau has met these requirements, and the reasons for any failure to meet such requirements;

b. A general description of the projects and activities conducted during the reporting period pursuant to this Consent Decree, and a projection of work to be performed pursuant to this Consent Decree during the next reporting period. Notification to EPA of any anticipated delay shall not, by itself, excuse the delay;

c. A summary of all material problems or potential problems encountered during the reporting period, and the actions taken to rectify the problems;

d. During the time Interim Measures are in place, the new furnace damper control settings when modified and the results of the Method 9 opacity reading required by Paragraph 9.a;

e. During the time Interim Measures are in place, the date, time, and duration of instances when Gerdau opens Door #18 or Door #19 to receive scrap for the next heat pursuant to Paragraph 9.b.ii.4;

- f. The results and related information for all inspections required by Paragraph 16 that identify issues requiring corrective action, if any;
- g. The dates and times of stack testing pursuant to Paragraph 17;
- h. The dates and times of all visible emissions observations and the results of Method 22 and/or Method 9 opacity readings, as required by Paragraph 20;
- i. Copies of any permit applications or other materials, as required by Paragraph 23; and
- j. Any other non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.

32. In addition to the reports required pursuant to this Section, if Gerdau violates any provision of this Consent Decree, Gerdau shall notify EPA of such violation in writing within 10 working days after Gerdau knew of the violation. Gerdau shall explain the likely cause of the violation and the remedial steps taken, and/or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, Gerdau shall so state in the report. Gerdau shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 days of the day Gerdau becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Gerdau of its obligation to provide the notice required by Section VIII (Force Majeure).

33. Whenever Gerdau has reason to believe that any violation of this Consent Decree or of any applicable permits or any other event affecting Gerdau's performance under this Decree may pose an immediate threat to the public health or welfare or the environment, Gerdau shall notify EPA orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after Gerdau first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraphs.

34. All reports shall be submitted to the persons designated in Section XIII (Notices) with a courtesy copy to each email addressee.

35. Each report submitted by Gerdau under this Section shall be signed by a Gerdau official and include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

36. The reporting requirements of this Consent Decree do not relieve Gerdau of any reporting obligations required by its Permit, the CAA and the rules promulgated thereunder, and any other federal, state, or local law, regulation, permit, or other requirement.

37. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

VII. STIPULATED PENALTIES

38. Gerdau shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section VIII (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

39. Late Payment of Civil Penalty. If Defendant fails to pay the civil penalty required to be paid under Section V (Civil Penalty) when due, Defendant shall pay a stipulated penalty of \$1,000 per Day for each Day that the payment is late.

40. For each day of failure to make fully operational the Caster Roof Monitor Capture and Control System by September 1, 2018, in accordance with Paragraph 12, Gerdau shall pay:

<u>Period of Delay</u>	<u>Penalty per Day</u>
Days 1-30	\$750
Days 31-60	\$2,000
Days 61 and over	\$3,000

41. For each failure to comply with the interim measures requirements in Paragraph 9, Gerdau shall pay \$750 per day.

42. For each failure to comply with the baghouse PM limits in Paragraph 10, Gerdau shall pay \$750 per day.

43. For each failure to comply with the Melt Shop opacity limit in Paragraph 11, Gerdau shall pay \$1,500 per day.

44. For each day of failure to satisfactorily complete the First and/or Second Performance Tests by the deadlines specified in Paragraphs 13 and 14, Gerdau shall pay:

<u>Period of Delay</u>	<u>Penalty per Day</u>
Days 1-30	\$750
Days 31-60	\$2,000
Days 61 and over	\$3,000

45. For each failure to operate in accordance with the two fan operation requirements in Paragraph 15, Gerdau shall pay \$750 per day.

46. For each failure to timely conduct inspections and/or implement corrective actions in accordance with the requirements of Paragraph 16, Gerdau shall pay \$1,000 per day.

47. For each failure to timely conduct stack testing in accordance with the requirements of Paragraph 17, Gerdau shall pay \$1,000 per day.

48. For each failure to operate the Existing Baghouse in a pressure drop range of three inches to ten inches of water column, as required by Paragraph 19, Gerdau shall pay \$1,000 per day.

49. For each failure to carry out visible emissions observations, opacity readings, and/or corrective actions as required by Paragraph 20, Gerdau shall pay \$1,000 per day.

50. For each failure of Gerdau to submit plans, schedules, reports, or permit applications as required by this Consent Decree, the following stipulated penalties will apply:

<u>Period of Noncompliance</u>	<u>Penalty per Day per Violation</u>
Days 1-30	\$750
Days 31-60	\$2,000
Days 61 and over	\$3,000

51. For each failure of Gerdau to maintain records as required by this Consent Decree, the following stipulated penalties will apply:

<u>Period of Noncompliance</u>	<u>Penalty per Day per Violation</u>
Days 1-30	\$500
Days 31-60	\$1,000
Days 61 and over	\$2,000

52. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

53. Gerdau shall pay any stipulated penalty within 30 Days of receiving the United States' written demand.

54. Stipulated penalties shall continue to accrue as provided in Paragraph 52, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to the Court, Gerdau shall pay accrued penalties determined to be owing, together with interest, to the United States within 30 Days of the effective date of the agreement or the receipt of EPA's decision or order.

b. If the dispute is appealed to the Court and the United States prevails in whole or in part, Gerdau shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 Days of receiving the Court's decision or order, except as provided in subparagraph c, below.

c. If any Party appeals the District Court's decision, Gerdau shall pay all accrued penalties determined to be owing, together with interest, within 15 Days of receiving the final appellate court decision.

55. Gerdau shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 29, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

56. If Gerdau fails to pay stipulated penalties according to the terms of this Consent Decree, Gerdau shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Gerdau's failure to pay any stipulated penalties.

57. The payment of penalties and interest, if any, shall not alter in any way Gerdau's obligation to complete the performance of the requirements of this Consent Decree.

58. Stipulated penalties are not the United States' exclusive remedy for violations of this Consent Decree. Subject to the provisions of Section XI (Effect of Settlement/Reservation of Rights), the United States expressly reserves the right to seek any other relief it deems appropriate for Gerdau's violation of this Decree or applicable law, including but not limited to an action against Gerdau for statutory penalties, additional injunctive relief, mitigation or offset measures, and/or contempt. However, the amount of any statutory penalty assessed for a

violation of this Consent Decree shall be reduced by an amount equal to the amount of any stipulated penalty assessed and paid pursuant to this Consent Decree.

VIII. FORCE MAJEURE

59. “Force Majeure,” for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Gerdau, of any entity controlled by Gerdau, or of Gerdau’s contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Gerdau’s best efforts to fulfill the obligation. The requirement that Gerdau exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential Force Majeure event and best efforts to address the effects of any potential Force Majeure event (a) as it is occurring and (b) after it has occurred, such that the delay and any adverse effects of the delay are minimized. “Force Majeure” does not include Gerdau’s financial inability to perform any obligation under this Consent Decree.

60. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a Force Majeure event, Gerdau shall provide notice orally or by electronic or facsimile transmission to EPA within 72 hours of when Gerdau first knew that the event might cause a delay. Within 15 Days thereafter, Gerdau shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Gerdau’s rationale for attributing such delay to a Force Majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Gerdau, such event may cause or contribute to an endangerment to public health, welfare or the environment. Gerdau shall include with any notice all available documentation supporting the claim that the delay was attributable to a Force Majeure. Failure to comply with the above requirements regarding an event shall preclude Gerdau from asserting any claim of Force Majeure regarding that event, provided, however, that if EPA, despite the late notice, is able to assess to its satisfaction whether the event is a Force Majeure under Paragraph 59 and whether Gerdau has exercised its best efforts under Paragraph 59, EPA may, in its discretion, excuse in writing Gerdau’s failure to submit timely notices under this Paragraph. Gerdau shall be deemed to know of any circumstance of which Gerdau, any entity controlled by Gerdau, or Gerdau’s contractors knew or should have known.

61. If EPA agrees that the delay or anticipated delay is attributable to a Force Majeure event, the time for performance of the obligations under this Consent Decree that are affected by the Force Majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Gerdau in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event.

62. If EPA does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, EPA will promptly notify Gerdau in writing of its decision.

63. If Gerdau elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than 30 days after receipt of EPA's notice. In any such proceeding, Gerdau shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Gerdau complied with the requirements of Paragraphs 59 and 60. If Gerdau carries this burden, the delay at issue shall be deemed not to be a violation by Gerdau of the affected obligation of this Consent Decree identified to EPA and the Court.

IX. DISPUTE RESOLUTION

64. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Gerdau's failure to seek resolution of a dispute under this Section shall preclude Gerdau from raising any such issue as a defense to an action by the United States to enforce any obligation of Gerdau arising under this Decree.

65. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations, which may include any third-party assisted, non-binding alternative dispute resolution process agreeable to the Parties. The dispute shall be considered to have arisen when Gerdau sends the United States a written Notice of Dispute in accordance with Section XIII (Notices). Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 30 Days from the date of the Notice of Dispute, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within 45 Days after the conclusion of the informal negotiation period, Gerdau invokes formal dispute resolution procedures as set forth below.

66. Formal Dispute Resolution.

a. Gerdau shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States in accordance with Section XIII (Notices) a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Gerdau's position and any supporting documentation relied upon by Gerdau.

b. The United States shall serve its Statement of Position in accordance with Section XIII (Notices) within 45 Days of receipt of Gerdau's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Gerdau, unless Gerdau files a motion for judicial review of the dispute in accordance with the following Paragraph.

c. Gerdau may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XIII (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 15 Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Gerdau's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

d. The United States shall respond to Gerdau's motion within the time period allowed by the Local Rules of this Court. Gerdau may file a reply memorandum, to the extent permitted by the Local Rules.

67. Standard of Review

a. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Gerdau shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

b. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 66, Gerdau shall bear the burden of demonstrating that its position complies with this Consent Decree.

68. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Gerdau under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute. If Gerdau does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VII (Stipulated Penalties).

X. RIGHT OF ENTRY AND INFORMATION COLLECTION AND RETENTION

69. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into and upon the Facility at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Consent Decree;

- b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Gerdau or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess Gerdau's compliance with this Consent Decree.

70. Upon request, Gerdau shall provide EPA or its authorized representatives splits of any samples taken by Gerdau. Upon request, EPA shall provide Gerdau splits of any samples taken by EPA.

71. Until three years after the termination of this Consent Decree, Gerdau shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Gerdau's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States, Gerdau shall provide copies of any documents, records, or other information required to be maintained under this Paragraph, subject to the right under Paragraph 72 to claim privilege. If EPA and Gerdau disagree as to whether a particular document or record is privileged, Gerdau shall deliver such document or record to the United States or EPA unless it invokes dispute resolution pursuant to Section IX (Dispute Resolution), in which case Gerdau shall not have an obligation to deliver such document or record until a final determination is made, pursuant to the procedures set forth in Section IX (Dispute Resolution), that such document or record is not privileged.

72. At the conclusion of the information-retention period provided in the preceding Paragraph, Gerdau shall notify the United States at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, Gerdau shall deliver any such documents, records, or other information to EPA. Gerdau may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Gerdau asserts such a privilege, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Gerdau. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

73. Gerdau may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2. As to any information that Defendant seeks to protect as CBI, Gerdau shall follow the procedures set forth in 40 C.F.R. Part 2.

74. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Gerdau to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XI. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

75. This Consent Decree resolves the civil claims of the United States for the violations alleged in the Complaint filed in this action through the date of lodging.

76. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CAA and the rules promulgated thereunder, or under other federal or state laws, regulations, or permit conditions, except as expressly stated in Paragraph 75. The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Gerdau’s Facility, whether related to the violations addressed in this Consent Decree or otherwise.

77. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, or other appropriate relief relating to the Facility, Gerdau shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 75.

78. This Consent Decree is not a permit, or a modification of any permit, under any federal, state, or local laws or regulations. Gerdau is responsible for achieving and maintaining complete compliance with all applicable federal, state, and local laws, regulations, and permits. Gerdau’s compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Gerdau’s compliance with any aspect of this Consent Decree will result in compliance with provisions of Gerdau’s Permit, the CAA and the rules promulgated thereunder, or any other federal, state, or local law, regulation, permit, or other requirement.

79. This Consent Decree does not limit or affect the rights of Gerdau or of the United States against any third parties, not party to this Consent Decree, nor does it limit the rights of

third parties, not party to this Consent Decree, against Gerdau, except as otherwise provided by law.

80. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XII. COSTS

81. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) against Gerdau incurred in any action necessary to enforce this Consent Decree or to collect any portion of the civil penalty or any stipulated penalties due but not paid by Gerdau, provided that the United States prevails in the action.

XIII. NOTICES

82. Unless otherwise specified in this Consent Decree, whenever notifications, submissions, Statements of Position, or communications are required by this Decree, they shall be made in writing and addressed as follows. Any notification, submission, Statement of Position, or communication required to be made to the United States shall be made to both the United States Department of Justice and EPA. Any notification, submission, Statement of Position, or communication required to be made to EPA need not be made to the Department of Justice.

As to the United States
Department of Justice by email: eesdcopy.enrd@usdoj.gov
Re: DJ # 90-5-2-1-11453

As to the United States
Department of Justice by mail: EES Case Management Unit
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611
Re: DJ # 90-5-2-1-11453

As to U.S. EPA: r5ardreporting@epa.gov

As to Gerdau: Vice President/General Manager
3100 Brooklyn Road
Jackson, MI 49203
Ph: 517-764-3900

83. Any Party may, by written notice to the other Party, change its designated notice recipient or notice address provided above.

84. Notices submitted pursuant to this Section shall be deemed submitted upon mailing (including emailing), unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XIV. EFFECTIVE DATE

85. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

XV. RETENTION OF JURISDICTION

86. The Court shall retain jurisdiction over this case until termination of this Consent Decree pursuant to Section XVII (Termination), for the purpose of resolving disputes arising under this Decree pursuant to Section IX (Dispute Resolution), entering orders modifying this Decree pursuant to Section XVI (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XVI. MODIFICATION

87. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court. Any other modifications that do not constitute a material change to this Consent Decree may be made upon the written agreement of the Parties, and upon execution shall become enforceable under this Consent Decree and shall be filed with the Court.

88. Any disputes concerning modification of this Decree shall be resolved pursuant to Section IX (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 67 the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XVII. TERMINATION

89. After Gerdau has completed the requirements of Section IV (Compliance Requirements), Gerdau may submit to the United States for review and approval in accordance with Paragraph 24 a Request for Termination of this Consent Decree. Such Request for Termination shall be approved if: (a) Gerdau has completed installation of the Caster Roof Monitor Capture and Control System, it is fully operational and has been in compliance with the emission limit requirements as stated in Section IV (Compliance Requirements) for at least 12 months; (b) all civil penalties due and all stipulated penalties demanded under this Decree (and any interest thereon) have been paid; and (c) Gerdau has maintained satisfactory compliance with all other requirements of this Consent Decree.

90. Following receipt by the United States of Gerdau's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Gerdau satisfactorily has complied with the requirements for termination. If the United States agrees that the Decree may be terminated and approves the Request, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

91. If the United States does not agree that the Decree may be terminated, Gerdau may invoke dispute resolution under Section IX of this Decree (Dispute Resolution). However, Gerdau shall not invoke dispute resolution of any dispute regarding termination until 90 days after service of its Request for Termination, unless the United States makes a final determination that the Decree may not be terminated at an earlier date.

XVIII. PUBLIC PARTICIPATION

92. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Gerdau consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of this Decree, unless the United States has notified Gerdau in writing that it no longer supports entry of this Decree.

XIX. SIGNATORIES/SERVICE

93. The Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice or his designee and the undersigned representative of Gerdau certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

94. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Gerdau agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service

requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. Gerdau need not file an answer to the Complaint in this manner unless or until the Court expressly declines to enter this Consent Decree.

XX. INTEGRATION

95. This Consent Decree and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXI. FINAL JUDGMENT

96. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Gerdau. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXII. 28 U.S.C. SECTION 162(F)(2)(A)(II) IDENTIFICATION

97. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of Section II (Applicability), Paragraph 5; Section IV (Compliance Requirements), Paragraphs 8-25; Section VI (Reporting Requirements), Paragraphs 31-32 and 34-35; and Section X (Right of Entry and Information Collection and Retention), Paragraphs 69-72; and related Appendix A is restitution or required to come into compliance with law.


SO ORDERED this _____ day of _____, 2018.

United States District Judge


Signature Page for *United States v. Gerdau* Consent Decree

FOR PLAINTIFF UNITED STATES OF AMERICA:

Date: 7-11-18


KAREN S. DWORKIN
Deputy Chief
Environmental Enforcement Section
Environment & Natural Resources Division
United States Department of Justice

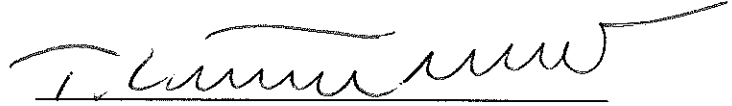
Date: 7-11-18


NICHOLAS A. MCDANIEL
Trial Attorney
Environmental Enforcement Section
Environment & Natural Resources Division
United States Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
Telephone: 202-514-0096

Signature Page for *United States v. Gerdau* Consent Decree

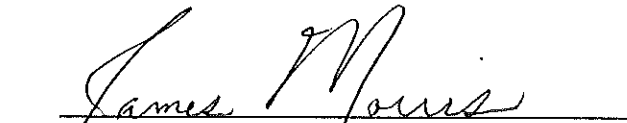
FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5:

Date: 7/13/2018



T. LEVERETT NELSON
Regional Counsel
U.S. Environmental Protection Agency
Region 5

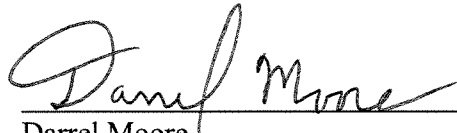
Date: 7/13/2018



JAMES MORRIS
Associate Regional Counsel
U.S. Environmental Protection Agency, Region 5
Office of Regional Counsel
77 West Jackson Blvd.
Chicago, IL 60604-3590
(312) 886-6632

FOR DEFENDANT GERDAU:

Date: 6/8/2018



Darrel Moore
Vice President/General Manager
Gerdau Specialty Steel – Michigan and Indiana

APPENDIX A



Schust Engineering, Inc.

701 North Street

P.O. Box 128

Auburn, IN 46706

Phone: (260) 925-6550

Fax: (260) 925-6093

E-mail: office@schustengineering.com

January 11, 2018

Gerdau Jackson Mill
3100 Brooklyn Road
Jackson, MI 49203

Attn: Mr. Kevin Jilbert
Senior Category Manager – Capital Equipment

Re: Turnkey Supply and Installation of New Caster Emissions Control APC System
Schust Engineering **Revised** Quotation #7951-17-F R1.

Schust Engineering, Inc. is pleased to submit the following revised quotation for the design, supply, and installation of the new Caster Emissions Control APC system for your Jackson, MI facility.

Per the conference call and technical review of the proposal on 1-8-2018, we have made the following requested modifications and clarifications.

- Schust Engineering will make every attempt to use Gerdau structural steel in our supply providing price or availability does not prevent us from doing so. In such case Gerdau will be contacted for assistance in sourcing. In any case steel produced in North American will be supplied.
- Per request, we have provided an option price for adding a second back up air compressor in the MCC/Air compressor room.
- All personnel in-house and sub-contractors will attend four (4) hour safety training prior to working on site.
- All fire and explosion protection for the dust collector if required by Gerdau's insurance carrier will be provided by Gerdau. Site fire protection during construction will be the responsibility of Schust Engineering.
- Weekly review meetings will be held to monitor status of the project. Prior to start of construction, meetings will be alternating bi-weekly Webex type and on site meetings. After construction starts meetings will be held weekly on site.

Per the specifications, the system volume has been established at 150,000 acfm to provide exhaust for the new Caster Monovent Hood. The new monovent hood shall replace the 50'-0" of open monovent currently in place. The new hood shall be ducted to the new dust collector system located to the South of the caster area in the laydown yard. The collector system will consist of two (2) modules in an in-line arrangement with one (1) ID fan and a 50'-0" tall self-supporting exhaust stack. Material collected from the two modules will be gathered by a screw conveyor and transported to a collection container provided by Gerdau. Further description of the equipment supply and installation is provided in the following document.

Proposal based on supplied “RFPs for the New Caster Emission Control APC System” and drawings 4862-A01, A02, A03, A04, A05, H01, H02, H03, S01R2, S02, S03, S04, S05, S06, S07, S08 and S09 supplied by Gerdau.

We trust that we have interpreted your requirements accurately and that the proposal contains all the information necessary for your evaluation. If additional data or clarification is required, please do not hesitate to call.

Sincerely,

Keith Blair

Keith Blair
Engineering Manager
Schust Engineering, Inc.

Terms & Conditions

Cc: Mr. Steve Burns – Project Manager
Mr. Paul Johnson – Sr. Project Engineer

SUPPLY TECHNICAL DESCRIPTION:

Schust Engineering, Inc. shall furnish the following:

1. Caster Monovent Hood Dust Collection System.

OPERATING PARAMETERS:

Volume:-----	150,000 acfm
Operating Temperature °F:-----	125
Application:-----	Melt Fume/Dust
Number of Collector Modules:-----	2
Configuration:-----	1 x 1
Cleaning:-----	On-line, Pulse-jet
Total Number of Filters:-----	1,980
Total Cloth Area:-----	36,503 ft ²
Gross Air to Cloth Ratio:-----	4.1:1
Interstitial Velocities:-----	276 fpm
Can Velocities:-----	164 fpm

Two (2) 6615-PBW-12-8 Schust pulse-jet cleaning walk-in plenum baghouse modules complete with the following:

1.1. Module Construction Each:

- 10 Ga. H.R.S. housing and hopper, all welded construction.
- Stiffened to withstand -20 "wg.
- Full height walk-in clean air plenum for contained filter access.
- 3/16" tube sheet with laser precision cut holes, seal welded into housing.
- Three (3) access doors per module:
 - o Two (2) 20" x 48" front clean air plenum access.
 - o One (1) 24" x 24" hopper access.
 - Standard door seals.
 - Hinged.
- 1-½" pulse valve cleaning system:
 - o Turbo double diaphragm design.
 - o Nitrile diaphragms.
 - o 120 VAC remote solenoids in a NEMA 4 enclosure.
 - o Flex coupled.
 - o Standard bulkhead connectors: NBR seals.
- Six (6) 5" round pulse air headers.
 - o 1-½" minimum coupler ports each header.
 - o 1-½" pulse air manifold pipes.
- Four (4) flanged inlets with internal baffle air diffusion.
- One (1) flanged outlet.
- Trough hopper configuration:
 - o Minimum side angle: 60° from horizontal.

- Valley angle: 51° from horizontal.
- 35'-0" x 10" ID outlet flange.
- Exterior HRS surfaces of the collector shall be cleaned to a minimum SSPC-SP3 specification.
 - One (1) coat of industrial grade primer.
 - One (1) finish coat of industrial enamel.

1.2. Filter Bags

- 100% Polyester fabric w/ PTFE membrane.
- 16.0 oz. /yd.2, needle felt, heat-set, singed finish.
- 6" nominal dia. x 144" long.
- Stainless steel snap band w/ disc bottom & 3" wear strip.
- 15-25 CFM initial permeability @ ½ in. W.G.
- Maximum continuous operating temperature 275 °F.
- Guaranteed bag life shall be 36 months from date of start-up under normal operating conditions. Based on normal operating conditions we anticipate the bags service to be well beyond our guarantee.

1.3. Filter Support Cages

- Exclusive Filter Fit System™ mechanical seal assist stabilized design.
- Reinforced integral spun steel venturi.
- Fabricated from 11 gauge carbon steel wire.
- 12 vertical wires each.
- Horizontal rings spaced on 8" centers.
- Rigid single piece construction.
- Solid hemmed cup bottom.

1.4. Support Steel

- Support structure to provide 8'-0" clearance under the hopper discharge flange.
- Supports designed with cross bracing to withstand wind load for local conditions and with dust at 90 lbs. /cu. ft. bulk density and hopper 70% full.
- One (1) clean air plenum platform walkway per unit for maintenance access to filters and cleaning system. One (1) connecting platform between modules:
 - OSHA compliant handrail and toe-boards.
- Two (2) safety caged ladders total. One (1) per module to provide access to the clean air plenum platform from the base plate elevation of the structural steel:
 - OSHA and ANSI compliant ladder safety gates.
- All safety handrails and ladder shall be painted with one (1) coat of primer and one (1) finish coat of safety yellow industrial enamel.

1.5. Controls

- One (1) Solid-state digital AMETEK NCC microprocessor pulse timers per unit.
- Weatherproof NEMA 4 Hoffman enclosures.
- Programmable on/off times (and last output used.)
- LED indication.
- Pre-wired and set-up for continuous cleaning.

2. Exhaust Fan:

2.1. Furnish One (1) Twin City Direct Driven Type “BCS” Centrifugal Exhaust Blower Model #660-BCS-1170-500 complete with the following:

- 150,000 CFM @ 14” ESP @ 125 Deg. F. @ 967’ Elevation.
- 500 HP 1170 RPM TEFC Premium Efficient Motor for 4160/3/60 Electrical Operation.
- TECO Model #KG5006.
- Heavy Gauge Class 22 Construction.
- Arrangement #7.
- 66” Backward Inclined Non-Overloading Impeller @ 104% Diameter.
- Flanged Inlet & Outlet.
- Bolted Housing Access Door.
- Housing Drain with Plug.
- Shaft Seals.
- OSHA Shaft Guards Painted Safety Yellow.
- Heavy Duty Motor & Bearing Pedestal.
- Independent Non Drive Side Bearing Pedestal.
- Pie Shaped Split Blower Housing.
- Structural Base for Complete Blower Assembly.
- Integral Inlet Box with Access Door & Drain.
- Inlet Box Pre-Spin Parallel Blade Damper.
- 120 Volt Beck Inlet Box Damper Actuator.
- Actuator Ground Mounted Stand with Linkage.
- Rebar in Motor & Bearing Pedestals for Concrete Fill by *SEI*.
- Blower Bearing RTD’s.
- Motor Bearing RTD’s.
- Blower Bearing Metrix Vibration Sensors.
- Motor Bearing Metrix Vibration Sensors.
- Gearhead Spacer Coupling with Guard.
- Final alignment and connection of coupling by *SEI*.
- Blower Balanced to BV-4 Standards.
- Blower Painted with TCF Industrial Enamel Standard Color.
- Blower Suitable for Airstream Temperatures up to 300 Deg. F.
- Blower Shipped Factory Tested & Assembled.
- Blower Shaft RPM @ 1170 RPM.
- Maximum Blower Shaft RPM for Class 22 @ 1265 RPM @ 150 Deg. F.
- Blower Shaft BHP @ 457.22 BHP @ 125 Deg. F. @ 967’ Elevation.
- Blower Shaft BHP @ 500.23 BHP @ 75 Deg. F. @ 967’ Elevation.
- Blower Evase Outlet Velocity @ 4500 FPM.
- Approximate Sound Level of 88 dbA @ 5’ from Blower Housing.

3. Discharge Screw Conveyor and Rotary Airlock:

- 3.1. Furnish one (1) 96'-0" OAL hopper discharge screw conveyor complete with:
 - 9" diameter, helicoids flights.
 - 10 ga. mild steel trough with angle flange.
 - 15 HP WEG, 1800 RPM, TEFC, 460/3/60 drive motor.
 - Dodge TA-II Reducer, motor mount and drive guard.
 - Hinged inspection cover over discharge.
 - Hanger pocket with cover for each hanger bearing.
- 3.2. Furnish one (1) slave-driven rotary airlock complete with:
 - Cast iron housing construction.
 - Six-vane open-end carbon steel rotor.
 - Sprockets and roller chain drive with shear pins.
 - OSHA guard.
 - Electro-Sensors M100T/EZ100 Zero Speed switch.

4. Compressed Air System:

- 4.1. Furnish one (1) new Ingersoll Rand Rotary Air Compressor complete with:
 - UP6S-25-125 Rotary screw compressor.
 - Star Delta starter.
 - 25 HP.
 - 98 cfm, Max. operating pressure 125psig.
 - Tank mounted 120 Gallon.
 - XE Series Controller.
 - Inline Pre-filter, Auto drain.
 - Oil Water Separator.
- 4.2. Furnish one (1) new Ingersoll Rand Heatless Desiccant Air Dryer complete with:
 - Floor mounted low profile design.
 - Pre-filters and after-filters.
 - Digital controller and NEMA 4 electronics.
 - 120 scfm capacity.
 - (-40) degrees F dew point.
 - 150psig maximum operating pressure.

5. Electrical Supply:

- 5.1. Electrical Engineering Services:
 - P&ID Diagrams.
 - Sequence of Operations.
 - Instrumentation, equipment lists.
 - Panel layout, power schematics, control schematics and I/O drawings.
 - PLC and HMI programming.
 - Startup Checkout and commissioning.

5.2. Field Instrumentation includes (may be reflected in additional locations):

- Two (2) Dwyer magnehelic type module DP transmitters.
- One (1) industrial thermocouple c/w 4-20mA transmitter.
- One (1) emissions particulate monitor, Auburn Tribo U3400 Loop powered.

5.3. One (1) Main Control Panel:

- NEMA 12 enclosure complete with main disconnect.
- 120Vac power supply.
- Allen Bradley 1756-L71 ControlLogix controller.
- Allen Bradley 1756-ENBT Ethernet Interface Module.
- Allen Bradley 1756 Digital and Analog I/O.
- Fiber/copper non-managed Ethernet switch.
- AB 2711P PanelView Plus 7 Standard Touch Screen Operator Interface.
- External programming receptacle and panel light.
- Terminal blocks, relays, etc. to provide a complete panel.

5.4. One (1) Allen Bradley 2100 Series MCC supporting dust collector area equipment including the control panel and the disposal screw:

- 480/3/60.
- NEMA 12 fully gasketed, 90"high, 20" deep.
- 800A Horizontal Bus, 400A main.
- MCB, CB disconnects.
- 65kA buss bus bracing.
- Automatic shutters.
- Tentatively 2 to 3 sections.
- One (1) FVR disposal screw/slave driven rotary valve starter complete w/E300 OL.
- One (1) 25kVA transformer and 225A 30 space lighting and service panel.
- One (1) lot FCBs to support SEI supplied equipment including:.
- Air compressor.
- One lot doors, etc. to complete the MCC.

5.5. One (1) Allen Bradley 1562E 500HP SMC Medium Voltage soft start complete with:

- NEMA 1 Enclosure.
- 4160V, 1200A bus, 50kA bracing.
- Three pole, gang operated non-load break isolating switch with external operating handle interlocked with the main contactor and power cell.
- Low voltage control panel.
- Ethernet communications.
- MV contactor control circuit with IntelliVAC module.
- Normal- Emergency Bypass option with bulletin 592overload relays.

6. MCC and Compressor Room:

6.1. Furnish one (1) building for the MCC/Controls and Air Compressor. It is assumed that the building will be located with 25' of the dust collector system. The building shall be as follows:

- High cube modified shipping container A1 condition approx. 40'L x 8'W x 8'-6"H.

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- Floor: 3/16" diamond tread plate secured to frame.
- Walls & Ceiling: 18GA liner system, galvanized steel painted w/ pre-cat water based epoxy. Polar white.
- Insulation: R13 batt in walls and ceiling.
- Doors: (1) Double personnel door @ 72" x 84" w/ key lock, panic, closer, weather strip, and hinges.
 - o (1) Single personnel door @ 36" x 84" w/ key lock, panic, closer, weather strip, and hinges.
 - o (1) set original container double hinged doors to remain intact.
- (1) partition wall @ full interior width and height.
- (1) BARD HVAC unit sized for electrical equipment side only.
- (2) cutouts for HVAC and intake louvers.
- (4) anchor clips.
- (2) ground bars.
- (4) base mounted, removable lift eyes.
- Electrical package as follows:
 - o One (1) 200 amp panel box with main breaker, surface mount, no conduit stuff-out.
 - o Eight (8) 20 amp duplex receptacles. Max 3 receptacles per circuit. Separate circuit for Lighting.
 - o Two (2) Single pole light switch.
 - o Five (5) 2-tube fluorescent light fixtures complete with cover.
 - o Exit lighting.
- The building will be fastened to a concrete pad located within 25' of the dust collector.

7. Ductwork:

7.1. Fabricate ductwork starting from the three taps on the new monovent hood to the inlet flanges on the two collector modules.

- The ductwork to the collector will be designed for an estimated 30 PCF dust at 50% full, 125 PSF live load, 30 PSF snow load and basic wind speed of 90 MPH.
- Outlet duct from the collectors to the fan inlet box and fan.
- Ductwork shall be flanged for ease of installation and maintenance.
- Ductwork shall be provided with inspection/clean-out doors.
- Ductwork shall be painted with one (1) coat of primer and one (1) finish coat of industrial grade enamel paint, color to be determined.
- Ductwork will be fabricated from carbon steel ductwork in accordance with SMACNA industrial standards.

7.2. Fabricate outlet duct from the collector to the fan inlet box.

- Ductwork shall be flanged for ease of installation and maintenance.
- Ductwork shall be provided with inspection/clean-out doors.
- Ductwork shall be painted with one (1) coat of primer and one (1) finish coat of industrial grade enamel paint, color to be determined.
- Ductwork will be fabricated from carbon steel ductwork in accordance with SMACNA industrial standards.

8. Stack:

- 8.1. Fabricate one (1) 88" diameter x 50'-0" ft. free-standing exhaust stack.
- Stack shall be equipped with 180 degree platform and access ladder.
 - Stack shall have two (2) 6" dia. test ports 90 degrees apart for testing.
 - Stack will be fabricated from A-36 carbon steel plate and properly reinforced to meet structural codes using SMACNA – Guide for Steel Stack Construction.
 - The stack height is per good engineering practice. Should the stack height be required to be changed, Schust will adjust stack height design, foundations, and pricing accordingly.

9. Ductwork Support Steel:

- 9.1. Furnish and deliver the supports for the ductwork as follows:
- Fabricate roof duct header support steel.
 - Fabricate Two (2) four-legged duct support towers.
 - Fabricate Five (5) two-legged duct support towers.
 - Fabricate support steel for collector inlet header.
 - Supports shall be designed for ductwork 50% full of dust at 30 pcf.
 - Support steel shall be fabricated from A36 steel.
 - Supports shall be painted with one coat of primer and one (1) finish coat of industrial grade enamel paint. Color to be determined.

10. Monovent Hood Dampers:

- 10.1. Furnish Three (3) Manual Chain Wheel actuated Monovent hood dampers:
- MPF Heavy Duty Round Multi-Blade Industrial Duty Dampers complete with the following specifications and accessories:
 - o 48" I.D. diameter.
 - o All mild steel construction.
 - o 10 ga. roll formed body.
 - o 1/4" Thick Steel Blades w/ reinforcing stiffeners.
 - o 2" x 2" x 3/16" mounting flanges with holes.
 - o 8" damper flange to flange depth.
 - o 1" dia. carbon steel full length shafts.
 - o Shaft seal packing glands w/ graphoil packing.
 - o Heavy duty flanged ball bearings.
 - o Heavy duty step seats.
 - o SSPC-SP6 surface prep w/ primer coat and top coat.
 - o Manual gear operator w/ 20'-0" of usable chain.

11. New Monovent Hood:

11.1. Furnish One (1) New Monovent Hood as follows:

- Develop complete set of detailed shop drawings.
- Hood shall be nominal 6'-0" wide x 50'-0" long x 7'-0" tall.
- Hood shall be fabricated from structural angle.
- Hood shall be covered with 26 ga. corrugated sheeting.
- Hood shall be delivered in three (3) sub sections for bolted assembly in the field.
- Each sub section shall have lifting lugs for installation.
- Hood shall be attached to existing monovent structure with bolted connections.

12. Freight to job-site *included* for all Schust supplied equipment.

13. Maintenance & Operation Manuals.

14. Furnish a Maintenance & Operation manual on thumb drive.

INSTALLATION TECHNICAL DESCRIPTION:

1. Foundations:

- 1.1. Furnish labor tools and equipment to install the foundations for the dust collector, MCC/ compressor room, fan, stack and support towers.
 - Furnish concrete pad under the collector and around the fan and stack.
 - Furnish concrete pad under the MCC/compressor room
 - Furnish foundations for the Duct support towers, collector, fan and stack.
 - Furnish foundation with housekeeping pad and conduit stub up for the MV switchgear.
 - Furnish foundation with conduit stub ups and oil retention for the pad mount 480V service transformer.
 - Foundation excavation and design is based upon soil capable of bearing 3,000lbs./square foot and no rock. If rock or other buried items hampering the foundation installation are encountered, the additional work and materials shall be considered an extra and billed accordingly.
 - Excavated spoils shall be located on site and disposal shall be the responsibility of Gerdau.

2. Installation of New Dust Collector Modules and Related Equipment:

- 2.1. Furnish labor, tools, and mobile equipment, necessary to receive and unload incoming system equipment, materials, and ductwork.
- 2.2. Furnish labor, tools, and mobile equipment to complete the installation of the dust collector equipment including:
 - Install all support steel, hoppers, mid and upper sections.
 - Install platforms and access ladders.
 - Install new filter bags, cages, and re-install pulse pipes.
 - Install new pulse valve headers and solenoid valves.
 - Install new pulse timer boards.
 - Install magnehelic & photohelic pressure gauges.
 - Furnish labor and materials necessary to pre-coat filter bags and conduct a leak check of the filter bags.
 - Install hopper discharge screw conveyor and rotary valve.

3. Exhaust Fan:

- 3.1. Furnish labor, tools, and equipment to complete the installation of the exhaust fan and inlet box.
 - Fan shall be anchored to the new concrete and grouted after completion.
 - Final fan shaft and motor alignment.

4. Monovent Hood:

- 4.1. Furnish labor, tools, and mobile equipment to complete the installation of the Monovent hood.
- Hood shall be mounted and anchored to the existing support structure and framework of the existing roof vent.
 - Remove the existing roof vent and place at location on site determined by Gerdau personnel. Disposal shall be the responsibility of Gerdau.

5. Duct Support Steel:

- 5.1. Furnish labor, tools, and mobile equipment to complete the installation of the support steel for the duct.
- Duct roof header supports shall be attached to the existing building structure. All roof penetrations will be made weather tight.
 - o Building roof analysis and any required reinforcing not included.
 - Duct support towers will be assembled and be anchored to the new concrete and grouted after completion.

6. Dampers:

- 6.1. Furnish labor, tools and mobile equipment to install the dampers on the three (3) monovent hood taps.

7. Ductwork:

- 7.1. Furnish labor, tools and mobile equipment to install the ductwork.
- Install the duct from the mono vent hood to the collector inlets.
 - Install the outlet duct from the collector to the fan inlet.

8. Stack:

- 8.1. Furnish labor, tools and mobile equipment to assemble and install the self-supporting stack.
- 8.2. Stack shall be installed on the new concrete foundation and anchored with embedded anchors.
- 8.3. Stack shall be grouted after installation is complete.
- 8.4. The platform and access ladder shall be installed on the stack.

9. Broken Bag Detection:

- 9.1. Install one (1) Auburn Systems Tribo broken bag detector w/ a 36" long probe in the inlet duct to the fan.

10. Electrical:

10.1. Medium voltage supply to SEI distribution equipment.

NOTE:SEI understands that power is to be derived from the existing 4160VAC caster cooling water transformer for distribution to the new monovent dust collector system. As such, SEI has included a budgetary price from a local electrical contractor to route 4160V power from the Gerdau transformer to SEI equipment. This estimate was made on the basis that there was adequate power and connection available from the Gerdau source. Should SEI be awarded this contract, power supply and connection points must be reviewed so as to assure capacity, (voltage drop, short circuit coordination, etc.), connection point and routing. Additional costs associated with power supply installation will be on a cost plus basis.

10.2. Medium Voltage Electrical distribution equipment for installation.

- Supply one (1) line-up of 5kV, NEMA 3R metal enclosed switchgear for the incoming 4160V supply. SQ. D HVLcc or equivalent, approximately 3 sections including:
 - Main and two feeders, one for the 4160VAC x 480VAC transformer, one to the MV starter.
 - BIL 60Kv, 25kA maximum avail. fault current.
 - Main Live line indicator for line and load side.
 - Space heater, 600A continuous and interrupting current, 3 current limiting fuses, manually operated over toggle mechanism switch.
 - Supply one (1) 500kVA Pad mount transformer. SQ D/ABB or equivalent.
 - Liquid filled-mineral oil.
 - 4160VDelta primary, 480Y/277 secondary.

10.3. Furnish labor, tools and equipment to complete the field wiring from the SEI supplied distribution equipment to the SEI supplied equipment and collector field devices including:

- Grounding including bonded anchors/rebar, ground rods and bond jumpers MV Switchgear and transformer.
- Embedded non-metallic PVC conduit and MV feeds from the MV switchgear to the transformer and MV soft start.
- Embedded non-metallic, PVC conduit and 480V feed from the transformer to the SEI low voltage MCC.
- Embedment's based on general conditions, non-vehicular traffic.

10.4. Furnish labor, tools and equipment to complete the field wiring from the SEI supplied panels to the collector field devices including:

- Grounding including bonded anchors/rebar, ground rods and bond jumpers to existing or new building steel column.
- Set MCC, MV Soft Start and Control panels. Panels to be located inside the new control building, near the proposed collector.
- MCC, soft start and Control Panel interlocks.

- 480V distribution from the MCC to the SEI supplied control room equipment including the air compressor(s) and HVAC.
- Fan and fan components.
 - o Embedded feeds.
 - o MV soft start to MV fan motor.
 - o Control and instrumentation including the fan damper, vibration and bearing temperature devices.
- 480V power feeds and control to disposal screw feeder with field safety switch, safety switch interlocks, load out operator box and zero speed.
- Control/instrument feeds to SEI supplied field devices including the magnehelic transmitters, pulse timers and emissions probe.
- Approximately nine (9) 120VAC outdoor LED wall pack/low bay type fixtures for general illumination of the dust collector and components.
- Approximately seven (7) GFCI service receptacles at the dust collector.
- Fiber/copper Ethernet feeds from the dust collector control panel to the Gerdau training room. Above grade routing supported by the ductwork, stubbed into the training room.
- Dust collector feeds from the MCC and Control panel may be above grade or partially embedded, stubbing up at common points under the collector and above grade routing to the devices.

11. Compressed Air:

11.1. Furnish labor, tools and mobile equipment to complete the compressed air installation.

- Set and anchor the compressor in the new building.
- Set and anchor the desiccant dryer in the new building.
- Install the compressed air piping from the compressor equipment to the pulse air headers on the collector modules.
- Piping shall be schedule 40 B.I. and include all necessary regulator, filters, valves, fittings, etc.

12. Engineering:

- Design and fabrication detailing.
- Foundation design and detailing.
- Electrical design and programming.
- Compressed air design and detailing.
- Project management.
- Field supervision during installation.
- Start-up services to commission and debug the new equipment.
- Training of plant operation and maintenance personnel.

PERFORMANCE GUARANTEE

This Performance Guarantee applies to Schust Engineering, Inc. (SEI). Proposal No. 7951-17 F R1 dated January 11, 2018.

1. Definitions:

For the purposes of this Performance Guarantee, the following definitions will apply:

- 1.1. "Seller" -- Schust Engineering, Inc. (SEI).
- 1.2. Standard Conditions for conversion purposes -- 29.92" Hg and 70°F.
- 1.3. "Solid Particulate" -- any dry, finely divided material, dust, smoke or fume that exists as a stable, dry, solid phase material at the Design Conditions stipulated herein. Without limitation, Solid Particulate does not include aerosols, mists, gases, or water vapour.
- 1.4. "Equipment" -- all equipment and materials supplied by Seller hereunder.

2. Design Conditions:

- 2.1. As stated in our Proposal and per conditions listed in Purchaser's specification.

3. Guarantee(s):

3.1. Solid Particulate Guarantee:

- The Solid Particulate emissions from the Dust Collector will not exceed 0.0018 gr/DSCF.

4. Testing Provisions:

- 4.1. Measurements to determine compliance with the Solid Particulate Collection Guarantee above, shall be made according to EPA Method 5, Part 60, Appendix A, latest revision, dry portion only, with the added provision that the filter box temperature be maintained at or above gas temperature. Tests shall be conducted at mutually acceptable test planes. Test duration shall be mutually agreed to.

5. Guarantee Provisions:

5.1. The Guarantee(s) set forth herein are (is) subject to the following provisions:

- a) The Equipment supplied by Seller shall be erected, started up, operated and maintained according to Seller's guidelines, good engineering and operating principles and Seller's Maintenance and Operating manual.
- b) All replacement parts shall be of Seller's manufacture, or as approved by Seller.

- c) If the Equipment is operated by the Purchaser before Performance Tests, Seller reserves the right to inspect the Equipment to determine that the operation has been in accordance with Seller's Maintenance and Operating manual. If required by Seller, the Purchaser will restore the Equipment to good operating conditions before any Performance Tests are conducted.
- d) Seller will have access to any test records at all times and will have the co-operation of the Purchaser in conducting any preliminary tests that Seller may deem necessary.
- e) The parties acknowledge that Seller has received and relied upon the specification and data supplied by the Purchaser. In the event that the operating conditions vary from the Design Conditions set forth above, the Guarantee(s) set forth herein affected by such changed conditions shall be null and void, or if the parties mutually agree, in writing, the Guarantee herein may be appropriately modified.

6. Equipment Guarantee Period:

- 6.1. Any field performance test conducted by the Purchaser or Others to determine compliance with the Performance Guarantee(s) set forth herein, shall be completed within (90) days after the Equipment is ready for initial operation and testing as determined by Seller. This Performance Guarantee shall be deemed satisfied upon successful completion of the performance testing and all Seller's Performance Guarantee liability shall thereupon terminate.
- 6.2. If such field performance test is not completed within the previously specified 90 days period, through no fault of Seller, and Purchaser has received from Seller written notice thereof, the Equipment shall conclusively be deemed to meet the stated Performance Guarantee(s) and all of Seller's Performance Guarantee liability shall terminate. If erection and/or start-up of the Equipment is delayed and not completed within (180) days after final Equipment delivery, through no fault of Seller, the Performance Guarantee(s) set forth herein shall be deemed satisfied and all Seller's Performance Guarantee liability shall thereupon terminate.

7. Equipment Remedy:

- 7.1. If prior to the expiration of the Guarantee Period set forth herein, Seller receives written notice from the Purchaser that the Equipment fails to meet the above Performance Guarantee (as determined by results of the field Performance Testing Methods stated herein), Seller agrees to provide all necessary material in accordance with the F.O.B. terms of the contract for modifications or corrections to the Equipment in order to meet the Performance Guarantee. Such modifications or corrections shall be performed at a time mutually agreeable to Purchaser and Seller. Within thirty (30) days after completion of any modifications or corrections as determined by Seller and made pursuant to this section, a field Performance Test will be conducted, at Seller's expense, to determine if the affected Performance Guarantee has been attained.

8. General:

- 8.1. Any other provisions of the contract to the contract notwithstanding, this performance guarantee is in lieu of any other performance guarantees or warranties, expressed or implied, including merchantability and fitness for a particular purpose and whether arising by law, custom, or conduct, and the right and remedies provided herein are exclusive and in lieu of any other rights or remedies.
- 8.2. The Performance Guarantee(s) do (does) not cover and Seller makes no guarantee which extends to damage to the Equipment due to Purchaser's misapplications or use in an otherwise improper manner. Seller's sole responsibility and the Purchaser's exclusive remedy shall be limited to such modification or correction as above provided.
- 8.3. THE EXCLUSIVE REMEDIES set forth above shall not be deemed to have failed of their essential purpose so long as Seller is willing to repair, replace, modify or correct in the manner and within the limits prescribed herein.
- 8.4. If, for any reason, any or all of the exclusive remedies provided in this Agreement are deemed by a court of law to have failed of their essential purpose or otherwise by unavailing as limits on the Owner's remedies for breach of any of the Guarantees contained in this Agreement, then it is the intent of the parties that the Limitation on Liability of Seller's Terms and Conditions, which limits liability and prohibits consequential damages, nevertheless shall be accorded independent effect and would remain in full force as reflecting the allocation of risk intended by the parties.