

**STATE OF INDIANA**  
**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**PUBLIC NOTICE NO 20240508 – INP000238– D**  
**DATE OF NOTICE: May 08, 2024**  
**DATE RESPONSE DUE: June 10, 2024**

The Office of Water Quality proposes the following DRAFT IWP PERMIT:

**MINOR RENEWAL :**

**Steel Dynamics, Inc – Engineered Bar Products Division**, Permit No. INP000238, HENDRICKS COUNTY, 8000 North County Road 225 East, Pittsboro, IN. This facility operates as a ‘mini mill’ that produces special bar quality steel and carbon steel bar. This facility will discharge process wastewater, water softener backwash, and sanitary wastewater at a rate of 0.3 MGD to the Town of Pittsboro POTW Permit Manager: Heidi Etter, 317/233-4903, [hetter@idem.in.gov](mailto:hetter@idem.in.gov). Posted online at <https://www.in.gov/idem/public-notices/>.

**PROCEDURES TO FILE A RESPONSE**

You are hereby notified of the availability of a 30-day public comment period regarding the referenced draft permit, in accordance with 327 IAC 5-3-9. The application and draft permit documents are available for inspection at IDEM, Office of Water Quality, Indiana Government Center North - Room 1255, 100 N. Senate Ave, Indianapolis, IN 46204 from 9:00 a.m. until 4:00 p.m., Monday thru Friday, (copies 10¢ per page). The Draft Permit is posted online on the above-referenced IDEM public notice web page. A courtesy copy has also been sent via email to the local County Health Department. Please tell others whom you think would be interested in this matter. For more information about public participation including your rights & responsibilities, please see <https://www.in.gov/idem/public-notices/>. You may want to consult our online Citizens’ Guide to IDEM: <https://www.in.gov/idem/resources/citizens-guide-to-idem/>.

**Comments:** The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the draft permit. All comments must be delivered to IDEM or postmarked no later than the Response Due Date noted to be considered in the decision to issue a final permit. Deliver or mail all requests or comments to the attention of the Permit Manager at the above address.

**To Request a Public Hearing:** Any person may request a public hearing. A written request must be submitted to the above address on or before the Response Due Date. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the hearing. The Department will determine whether to hold a public hearing based upon the comments and the rationale for the request. Public Notice of such a hearing will be circulated in at least one newspaper in the geographical area of the discharge and to those persons submitting comments and/or on the mailing list at least 30 days prior to the hearing.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Eric J. Holcomb**  
Governor

**Brian C. Rockensuess**  
Commissioner

May 8, 2024

VIA ELECTRONIC MAIL

Michael Brooks, Environmental Engineer  
Steel Dynamics, Inc. – Engineered Bar Products Division  
8000 North County Road 225 East  
Pittsboro, IN 46167

Dear Michael Brooks:

Re: IWP Permit No. INP000238  
Draft Permit  
Steel Dynamics, Inc. – Engineered Bar Products  
Division  
Pittsboro, IN - Hendricks County

Your application and supporting documents have been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is draft Industrial Wastewater Pretreatment Permit No. INP000238 which applies to the discharges associated with the steel manufacturing facility.

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notices/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public.

Please review this document carefully and become familiar with the proposed terms and conditions. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form. We suggest that you meet with us to discuss major concerns or objections you may have with the draft permit. If you have any questions concerning this proposed permit, please contact Heidi Etter at 317/233-4903 or [hetter@idem.in.gov](mailto:hetter@idem.in.gov).

Sincerely,

Richard Hamblin, Chief  
Industrial NPDES Permits Section  
Office of Water Quality

cc: Hendricks County Health Department  
Jaime Saylor, Hatchett & Hauck LLP  
Chris York, Pittsboro POTW  
Leigh Voss, IDEM  
Jason Palin, IDEM

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
AUTHORIZATION TO DISCHARGE UNDER THE  
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM

**INDUSTRIAL WASTEWATER PRETREATMENT (IWP) PERMIT**

In accordance with 327 IAC 5-21 and IDEM's permitting authority under IC 13-15, **Steel Dynamics, Inc. – Engineered Bar Products Division** (hereinafter referred to as the permittee) is authorized to discharge from the facility located at 8000 North County Road 225 East, Pittsboro, Indiana, into the **Town of Pittsboro Publicly Owned Treatment Works (POTW)**, in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I and II hereof.

EFFECTIVE DATE: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

**NOTE:** In order to receive authorization to discharge beyond the date of expiration, the permittee must submit a renewal IWP permit application to the Industrial NPDES Permit Section in the Office of Water Quality, no later than one hundred and eighty (180) days prior to the date this permit expires. Failure to do so will result in expiration of the authorization to discharge.

Issued on \_\_\_\_\_ for the Indiana Department of Environmental Management.

Jerry Dittmer, Chief  
Permits Branch  
Office of Water Quality

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 102 [1][2]. Outfall 102 is located at the discharge from the pretreatment system prior to combination with dilution streams. Such discharge shall be limited and monitored by the permittee as specified below:

Table 1

Parameter [3]	Discharge Limitations		Monitoring Requirements		
	Daily Maximum	Monthly Average	Unit	Measurement Frequency	Sample Type [4]
Flow [5]	Report	Report	MGD	1 X Daily	24-Hr. Total
Lead (Pb)	-----	0.48 [6]	lbs/day	2 X Weekly	24-Hr. Comp.
Lead (Pb)	0.33 [7]	-----	mg/l	2 X Weekly	24-Hr. Comp.
Zinc (Zn)	2.16 [6]	0.72 [6]	lbs/day	2 X Weekly	24-Hr. Comp.

Table 2

Parameter	Quality or Concentration		Monitoring Requirements		
	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [8]	5.5 [7]	10.0 [7]	s.u.	1 X Daily	Grab

- [1] Outfall 102 shall be designated as process wastewaters and contains no dilution streams.
- [2] The discharge shall not exceed the local limits in the Sewer Use Ordinance upon entering the POTW.
- [3] All metals shall be analyzed as Total Recoverable Metals.
- [4] A “24-hour composite sample” means a sample consisting of at least 3 individual flow-proportional samples of wastewater, consisting of aliquots withdrawn throughout the 24-hour discharge period. The aliquots may be: (i) uniform aliquots withdrawn at uniform flow intervals; (ii) flow-proportional aliquots withdrawn at uniform time intervals; or (iii) for batch discharge, uniform aliquots withdrawn from uniform batch volumes. A flow-proportioned composite sample may be obtained by:
  - (1) recording the discharge flow rate at the time each individual sample is taken,
  - (2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the “total flow” value,

- (3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,
- (4) then multiply the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.

Alternatively, a 24-hour composite sample may be obtained by an automatic sampler on an equal time interval basis over a twenty-four hour period provided that a minimum of 24 samples are taken and combined prior to analysis. The samples do not need to be flow-proportioned if the permittee collects samples in this manner.

- [5] The flow must be measured and recorded using valid flow measurement devices, not estimated. The flow monitoring device must be calibrated at least once every twelve (12) months.
- [6] Based on production-based categorical standards [40 CFR 420.56] and [40 CFR 420.66] and the following rates: production rate = 3,846 Tons/Day or 7,682,000 lbs/day.
- [7] Based on local ordinance [Town of Pittsboro Ordinance No. 2002-6 (Table 1 Limitations)].
- [8] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

2. During the period beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 104 [1][2]. Outfall 104 is located at the heat treat tank prior to combination with dilution streams. Such discharge shall be limited and monitored by the permittee as specified below:

Table 1

Parameter[3]	Discharge Limitations		Monitoring Requirements		
	Daily Maximum	Monthly Average	Unit	Measurement Frequency [4]	Sample Type
Flow [5]	Report	-----	MGD	Each Batch	24-Hr. Total
Lead (Pb)	0.33 [6]	-----	mg/l	Each Batch	Grab
Zinc (Zn)	9.0 [6]	-----	mg/l	Each Batch	Grab

Table 2

Parameter	Quality or Concentration		Monitoring Requirements		
	Daily Minimum	Daily Maximum	Units	Measurement Frequency [4]	Sample Type
pH [7]	5.5 [6]	10.0 [6]	s.u.	Each Batch	Grab

- [1] Outfall 104 shall be designated as process wastewaters and contains no dilution streams.
- [2] The discharge shall not exceed the local limits in the Sewer Use Ordinance upon entering the POTW.
- [3] All metals shall be analyzed as Total Recoverable Metals.
- [4] In situations of intermittent or batch discharge, all parameters required to be monitored should be sampled during the first representative discharge occurring during the monitoring period and then reported on the appropriate state and federal forms at the end of the monitoring period.

If a representative discharge occurs at any time during the monitoring period as identified for that individual parameter, then it is a violation of this permit to not collect a sample and report those results. At the first opportunity that a representative discharge occurs during the monitoring period, it should be sampled for all the required parameters during that monitoring period. Waiting to collect a sample until the end of a monitoring period risks missing a representative sample collection opportunity, and it is considered a violation of this permit to not collect a sample, analyze and report those results, when there was a discharge for that monitoring period.

- [5] The flow may be estimated based on tank volume and the level of wastewater in the tank at the time of discharge.

- [6] Based on local ordinance [Town of Pittsboro Ordinance No. 2002-6 (Table 1 Limitations)].
- [7] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

### 3. ADDITIONAL DISCHARGE PROHIBITIONS

The permittee shall not allow the introduction of the following into the POTW from any location, including Outfalls 102 and 104:

- a. A pollutant from any source of nondomestic wastewaters that could pass through or cause interference with the operation or performance of the POTW.
- b. A pollutant that could create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140° F degrees Fahrenheit (60° C) using the test methods in 40 CFR 261.21.
- c. A pollutant that could cause corrosive structural damage to the POTW, including a discharge with pH lower than five (5.0), unless the POTW is specifically designed to accommodate such a discharge.
- d. A solid or viscous pollutant in an amount that could cause obstruction to the flow in a sewer or other interference with the operation of the POTW.
- e. A pollutant, including an oxygen demanding pollutant (such as biochemical oxygen demand) released in a discharge at a flow rate or pollutant concentration that could cause interference in the POTW.
- f. Heat in an amount that could:
  - (1) inhibit biological activity in the POTW and result in interference or damage to the POTW; or
  - (2) exceed 40° C or 104° F at the POTW treatment plant unless the commissioner, upon request of the POTW, approves alternate temperature limits.
- g. Petroleum, oil, non-biodegradable cutting oil, or products of mineral oil origin in an amount that could cause interference or pass through.
- h. A pollutant that could result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
- i. A trucked or hauled pollutant, except:
  - (1) with the permission of the POTW; and
  - (2) when introduced to the POTW at a discharge point designated by the POTW.



#### 4. AFFIRMATIVE DEFENSE

The permittee shall have an affirmative defense in any action brought against the permittee alleging a violation of the prohibitions established in Part I.A.2 of this permit if the permittee can demonstrate that:

- a. it did not know or have reason to know that its discharge, alone or in conjunction with a discharge from another source, would cause pass through or interference; and
- b. a local limit designed to prevent pass through or interference in accordance with Part I.A.2 of this permit:
  - (1) was developed for each pollutant in the permittee's discharge that caused pass through or interference, and the permittee was in compliance with each such local limit directly prior to and during the pass-through or interference; or
  - (2) was not developed for the pollutant that caused the pass through or interference, and the permittee's discharge, directly prior to and during the pass through or interference, had not changed substantially in nature or constituents from its usual discharge condition when the POTW was regularly in compliance with the applicable:
    - (A) NPDES permit requirements; and
    - (B) requirements for sewage sludge use or disposal, in the case of interference.

#### B. DEFINITIONS

##### 1. Daily Discharge

The total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four (24) hour period that reasonably represents the calendar day for the purposes of sampling.

##### 2. Daily Maximum (Discharge) Limitation

The maximum allowable daily discharge for any calendar day.

3. Monthly Average Discharge (Average Monthly Discharge)

The total mass or flow-weighted concentration of all daily discharges sampled or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month.

4. Monthly Average (Discharge) Limitation

The highest allowable average monthly discharge for any calendar month.

5. Interference

a. "Interference" means a discharge that, alone or in conjunction with a discharge or discharges from other sources inhibits or disrupts the:

(1) treatment processes or operations;

(2) sludge processes; or

(3) selected sludge:

(A) use; or

(B) disposal methods;

of a POTW.

b. The inhibition or disruption under subsection (a) must:

(1) cause a violation of a requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation; or

(2) prevent the use of the POTW's sewage sludge or its sludge disposal method selected in compliance with the following statutory provisions, regulations, or permits issued thereunder or more stringent state or local regulations:

(A) Section 405 of the Clean Water Act (33 U.S.C. 1345).

(B) The Solid Waste Disposal Act (SWDA) (42 U.S.C. 6901), including:

(i) Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA); and

(ii) the rules contained in a state sludge management plan prepared pursuant to Subtitle D of the SWDA (42 U.S.C. 6941).

(C) The Clean Air Act (42 U.S.C. 7401).

(D) The Toxic Substances Control Act (15 U.S.C. 2601).

6. Pass-through

“Pass through” means a discharge proceeding through a POTW into waters of the state in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, are a cause of a violation of any requirement of the POTW’s NPDES permit, including an increase in the magnitude or duration of a violation.

7. Pretreatment requirements

“Pretreatment requirements” means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard, imposed on an industrial user.

8. Pretreatment standards

“Pretreatment standards” means:

- a. state pretreatment standards as established in 327 IAC 5-18-8;
- b. pretreatment standards for prohibited discharges, as established in 327 IAC 5-18-2; and
- c. national categorical pretreatment standards incorporated by reference in 327 IAC 5-2-1.5.

9. Publicly Owned Treatment Works (“POTW”)

A treatment works as defined by Section 212(2) of the Clean Water Act owned by the State or a municipality (as defined by Section 502(4) of the Clean Water Act), except that it does not include pipes, sewers or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or compatible industrial wastes. The term also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. “POTW” also means the municipality, as defined in Section 502(4) of the Clean Water Act, that has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

## C. MONITORING AND REPORTING

### 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the entire permitted discharge.

### 2. Reporting

The permittee shall submit monitoring reports to the Indiana Department of Environmental Management and the Town of Pittsboro containing results obtained during the previous month and shall be submitted no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which this permit becomes effective. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: <https://cdx.epa.gov/>.

If the Town of Pittsboro is agreeable to receiving an electronic version of the monthly reports, copies can be sent to the Town of Pittsboro via NetDMR. An acceptable email address for the Town of Pittsboro must be provided to IDEM's Compliance Data Section. Any non-NetDMR reports sent to the Town of Pittsboro shall be sent to the following:

Certified Operator  
Town of Pittsboro  
P.O. Box 185  
Pittsboro, IN 46167

The permittee shall also comply with the applicable reporting requirements of 40 CFR 403.12.

### 3. Monitoring Results

Requirements for test procedures shall be as follows:

- a. Test procedures identified in 40 CFR 136 shall be utilized for pollutants or parameters listed in that part, unless an alternative test procedure has been approved under 40 CFR 136.5.
- b. Where no test procedure under 40 CFR 136 has been approved, analytical work shall be conducted in accordance with the most recently approved edition of "Standard Methods for the Examination of Water and Wastewater",

published by the American Public Health Association (APHA) or as otherwise specified by the commissioner in the IWP permit.

- c. Notwithstanding subdivision a., the commissioner may specify in a permit the test procedure specified in a standard or effluent limitations guideline.

#### 4. Recording of the Monitoring Results

For each measurement or sample taken pursuant to the requirements of this permit, including the additional monitoring described under Part I.C.5., below, the permittee shall maintain records of all monitoring information and monitoring activities, including:

- a. The date, exact place and time of sampling or measurement;
- b. The person(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The person(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such measurements and analyses.

#### 5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Monitoring Report and the Discharge Monitoring Report. Such increased frequency shall also be indicated.

#### 6. Records Retention

- a. All records of monitoring activities and results required by this permit (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records) shall be retained at the permitted facility for a minimum of three (3) years. The three-year period shall be extended:
  - (1) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or
  - (2) as requested by the commissioner.

- b. The permittee shall maintain and make available to IDEM, the regional administrator, and the Town of Pittsboro personnel, records of disposal of all wastewater generated at the site. Such records shall include, but not be limited to, flow monitoring records, flow calibration records, and the volume and destination of all wastewater hauled off-site.

#### 7. Additional Reporting Requirements

- a. In accordance with 327 IAC 5-16-5(g), all categorical and noncategorical industrial users shall notify the POTW immediately of all discharges that could cause problems to the POTW, including any slug loadings as defined by 40 CFR 403.5(b).
- b. In accordance with 327 IAC 5-16-5(h)(2), if sampling performed by an industrial user indicates a violation, the industrial user shall notify the control authority within twenty-four (24) hours of becoming aware of the violation. The industrial user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the control authority within thirty (30) days after becoming aware of the violation.

Where the control authority has performed the sampling and analysis in lieu of the industrial user, the control authority shall perform the repeat sampling and analysis unless it notifies the industrial user of the violation and requires the industrial user to perform the repeat analysis. Resampling is not required if the control authority performs sampling at the industrial user:

- (1) at a frequency of at least once per month; or
- (2) between the time when the initial sampling was conducted and the time when the industrial user or the control authority receives the results of this sampling.

#### D. REOPENING CLAUSE

This permit shall be modified, or, alternatively, revoked and reissued, to comply with any applicable effluent limitation or standard issued or approved under Section 307(b) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

1. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. controls any pollutant not limited in the permit.

The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

## PART II

### A. RESPONSIBILITIES

#### 1. Duty to Comply

The permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Environmental Management Act (EMA) and is grounds for:

- a. enforcement action;
- b. permit termination, revocation and reissuance, or modification; or
- c. denial of a permit renewal application.

A permittee may claim an affirmative defense to a permit violation, however, if the circumstances of the noncompliance meet the criteria of an upset as defined in Part II.A.7, the provisions of Part I.A.3, or any defense as provided by local ordinance.

#### 2. Right of Entry

The permittee shall allow the Commissioner of the Indiana Department of Environmental Management or the Commissioner's authorized representatives (including an authorized contractor acting as a representative of the Commissioner), upon the presentation of the credentials and such other documents as may be required by law:

- a. to enter upon the permittee's premises where a point source is located or where any records must be kept under the terms and conditions of this permit;
- b. to have access to and copy at reasonable times any records that must be kept under the terms and conditions of this permit;
- c. to inspect, at reasonable times:
  - (1) any monitoring equipment or method;
  - (2) any collection, treatment, pollution management, or discharge facilities; or
  - (3) practices required or otherwise regulated under the permit; and
- d. to sample or monitor, at reasonable times, any discharge of pollutants or internal wastestream (where necessary to ascertain the nature of a discharge of pollutants) for the purpose of evaluating compliance with the permit or as otherwise authorized.

3. Change in Discharge

If the permittee intends to add a pollutant not limited by this permit or increase discharge of a pollutant limited by this permit, the permittee must notify the receiving POTW and apply for a permit modification from the commissioner prior to commencing discharge containing the additional pollutant. The application for permit modification must:

- a. be completed on a form prescribed by the commissioner;
- b. be signed in accordance with 327 IAC 5-2-22(a); and
- c. be submitted to the commissioner no later than 120 days prior to the date that the permittee intends to commence discharge containing the additional pollutant.

4. Duty to Mitigate Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the POTW or to waters of the State resulting from noncompliance with the IWP permit, including such accelerated or additional monitoring necessary to determine the nature and impact of the non-complying discharge.

5. Noncompliance Notification

- a. If the permittee does not or will not be able to comply for any reason with any discharge limitation specified in this permit, the permittee shall provide the Indiana Department of Environmental Management and the Town of Pittsboro with the following information in writing, within twenty-four (24) hours of becoming aware of the noncompliance.

(1) a description of the discharge and cause of noncompliance.

(2) the period of noncompliance, including exact dates and times of the noncomplying event and the anticipated time when the discharge will return to compliance.

(3) steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

The permittee may email the written notification of noncompliance to IDEM at [wwreports@idem.in.gov](mailto:wwreports@idem.in.gov).

- b. If the permittee has any unexpected, unintended, abnormal, or unapproved discharge from the facility into the POTW, the permittee shall comply with the spill reporting and response requirements contained in 327 IAC 2-6.1-7,



including the requirement to report the discharge to IDEM and to the receiving POTW within two hours of discovery of the discharge.

6. Spills, Reporting, Containment, and Response

Notwithstanding the permittee's obligations under Part II.A.5 of this permit, the permittee shall comply with the spill reporting, containment, and response requirements in accordance with 327 IAC 2-6.1, as applicable.

7. Upset

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with any pretreatment standards or requirements in 327 IAC 5-2 because of factors beyond the reasonable control of the permittee. An upset does not include:

- (1) noncompliance to the extent caused by operational error;
- (2) improperly designed treatment facilities;
- (3) inadequate treatment facilities;
- (4) lack of preventive maintenance; or
- (5) careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with the pretreatment standards or requirements if the requirements of subsection (c) are met.

c. In order to establish an affirmative defense of upset, the permittee must provide properly signed, contemporaneous operating logs, or other relevant evidence of the following facts:

- (1) An upset occurred and the permittee can identify the cause of the upset.
- (2) The facility was being operated at the time in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures.
- (3) The permittee submitted a report, to the POTW and control authority, within twenty-four (24) hours of becoming aware of the upset or within five (5) days, if an initial verbal report of the information is given to the required authority, and the report contained the following information:

(A) A description of the indirect discharge and cause of noncompliance.

(B) The period of noncompliance, including exact dates and times or the anticipated time the noncompliance is expected to continue if it is not corrected.

(C) Steps being taken or planned for reducing, eliminating, and preventing recurrence of the noncompliance.

- d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.
- e. In the usual exercise of prosecutorial discretion, the control authority may review any claims that noncompliance was caused by an upset. No determinations made in the course of the review constitute the commissioner's final action subject to judicial review. The permittee will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with the pretreatment standards or requirements.
- f. The permittee shall control production or all discharges to the extent necessary to maintain compliance with the pretreatment standards or requirements upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies when, among other things, the primary source of power of the treatment facility is reduced, is lost, or has failed.

## 8. Bypass

- a. The following definitions apply throughout this permit:
  - (1) "Bypass" means the intentional diversion of waste streams from any portion of a permittee's treatment facility.
  - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b. The permittee may allow a bypass to occur if:
  - (1) it does not cause a violation of any pretreatment standard or requirement including discharge limitations contained in this permit; and
  - (2) it is for essential maintenance to assure efficient operation. These

bypasses are not subject to the provisions of Part II.A.8.c. and Part II.A.8.d. of this permit.

- c. The reporting requirements for a bypass are as follows:
- (1) If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the control authority, if possible, at least ten (10) days before the date of the bypass.
  - (2) If an unanticipated bypass exceeds a pretreatment standard or requirement including discharge limitations contained in this permit, the permittee shall give oral notice to the control authority within twenty-four (24) hours from the time the permittee becomes aware of the bypass. A written submission shall also be provided to IDEM within five (5) days of the time the permittee becomes aware of the bypass. The written submission must contain the following:
    - (A) A description of the bypass and its cause.
    - (B) The duration of the bypass, including exact dates and times and the anticipated time it is expected to continue if the bypass has not been corrected.
    - (C) The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- d. Bypass is prohibited, and an enforcement action may be taken against the permittee for a bypass unless the following are demonstrated:
- (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
  - (2) There were no feasible alternatives to the bypass, such as any of the following:
    - (A) The use of auxiliary treatment facilities.
    - (B) Retention of untreated wastes.
    - (C) Maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance.
  - (3) The permittee submitted notices as required under Part II.A.8.c.

(4) A planned bypass is approved in advance by IDEM after determining that the bypass will not violate Part II.A.8.d.(1) through (3).

9. Facilities Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities or systems (and related appurtenances) for collection and treatment that are installed or used by the permittee and necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(9).

This provision does not act as an independent source of authority to set effluent limitations. Such limitations will be based on the design removal rates of installed treatment facilities only as required under this article. Nor should this provision be construed to require the operation of installed treatment facilities that are unessential for achieving compliance with the terms and conditions of the permit.

10. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in compliance with applicable Indiana statutes and rules, including any applicable portions of 327 IAC 6.1 and 329 IAC 10.

11. Power Failures

When a power source is used to operate wastewater treatment facilities in order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce, or otherwise control production and/or discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

12. Wastewater Treatment Plant and Certified Operators

Pursuant to IC 13-18-11-11 and 327 IAC 5-23-6, a permittee's wastewater treatment plant must be under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as determined under 327 IAC 5-23-4.

A certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant if the requirements under 327 IAC 5-23-7(b) are met. "Operator in responsible charge" is defined at 327 IAC 5-23-2(16).

Pursuant to 327 IAC 5-23-6(4)(A), the permittee shall notify IDEM when there is a change in the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator and submitted via e-mail to the Compliance Data Section of the Office of Water Quality at [WWReports@idem.IN.gov](mailto:WWReports@idem.IN.gov).

13. Construction Permit

The permittee shall not construct, install, or modify any water pollution control facility except in accordance with 327 IAC 3 and IC 13-14-8-11.6. Upon completion of any construction, the permittee must notify the Compliance Evaluation Section of the Office of Water Quality in writing.

14. Containment Facilities

When cyanide or cyanogen compounds are used in any of the processes at this facility the permittee shall provide approved facilities for the containment of any losses of these compounds in accordance with the requirements of 327 IAC 2-2-1.

B. ADDITIONAL RESPONSIBILITIES

1. Effect of Permit Issuance

This permit does not affect any pretreatment requirements, including any standards or prohibitions, established by local ordinance of the Town of Pittsboro.

2. Permit Renewal

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new IWP permit. An application for an IWP permit must conform to the following:

- a. Be completed on a form prescribed by the commissioner;
- b. Be signed in accordance with 327 IAC 5-2-22(a);
- c. Be submitted to the commissioner no later than one hundred eighty (180) days prior to the expiration date of an existing permit if the industrial user intends to continue discharging to the POTW.

### 3. Permit Modification

This permit may be modified in whole or in part, revoked and reissued, or terminated during its term for cause in accordance with the pertinent provisions of 327 IAC 5-2-16. The permittee must:

- a. report to the commissioner plans for or information about any activity that has occurred or will occur that would constitute cause for modification or revocation and reissuance;
- b. comply with the existing IWP permit until it is modified or reissued; and
- c. abide by the commissioner's decision:
  - (1) to modify or revoke and reissue the permit; and
  - (2) require submission of a new application as required by 327 IAC 5-21-3.

### 4. Permit Transferability

- a. A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued under 327 IAC 5-2-16(c)(1) or 16(e)(4), to identify the new permittee and incorporate such other requirements as may be necessary under the CWA. A permit may be transferred to another person by a permittee, without modification or revocation and reissuance being required, if the following occurs:
  - (1) The current permittee notifies the commissioner at least thirty (30) days in advance of the proposed transfer date.
  - (2) A written agreement containing a specific date for transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and that the transferee is liable for violations from that date on) is submitted to the commissioner.
  - (3) The transferee certifies in writing to the commissioner intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d) . However, the commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

- (4) The commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

## 5. Signature Requirements

- a. The reports required by Part I.C.2 of this Permit must be signed by one (1) of the following:
  - (1) A responsible corporate officer. As used in this subdivision, "responsible corporate officer" means:
    - (A) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - (B) The manager of one (1) or more manufacturing, production, or operating facilities provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty to make major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - (2) A general partner or proprietor or manager if the industrial user submitting the reports is a partnership or sole proprietorship, respectively.
  - (3) A duly authorized representative of the individual designated in either Part II.B.5.a.(1)(A) or Part II.B.5.a.(1)(B) of this permit if:
    - (A) the authorization is made in writing by the individual described in either Part II.B.5.a.(1)(A) or Part II.B.5.a.(1)(B) of this permit;
    - (B) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(C) the written authorization is submitted to the commissioner.

(4) If an authorization under subdivision (3) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of subdivision (3) must be submitted to the commissioner prior to or together with any reports to be signed by an authorized representative.

b. A report required by this section that relates to the actual operation of or discharge from a pretreatment facility must be prepared by or under the direction of a wastewater treatment plant operator certified under IC 13-18-11, if a certified operator is required.

#### 6. Penalties for False Reporting

In accordance with 327 IAC 5-2-8(15), Section 309(c)(4) of the Clean Water Act (U.S.C. 1319(c)(4)) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both.

IC 13-30-10-1 provides that a person who knowingly or intentionally renders inaccurate or inoperative a recording device or a monitoring device required to be maintained by a permit issued by the department commits a class B misdemeanor.

#### 7. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(10), Section 309(c)(4) of the Clean Water Act (33 U.S.C. 1319(c)(4)) provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under a permit shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both.

IC 13-30-10-1 provides that a person who knowingly or intentionally renders inaccurate or inoperative a recording device or a monitoring device required to be maintained by a permit issued by the department commits a class B misdemeanor.



8. Enforcement

- a. A violation of the pretreatment rules may:
  - (1) subject a person causing or contributing to the violation to administrative or judicial enforcement proceedings, under IC 13-30-3, and the penalties provided under IC 13-30-4;
  - (2) be cause for:
    - (A) modification;
    - (B) revocation and reissuance; or
    - (C) termination;of the industrial wastewater pretreatment permit; and
  - (3) warrant the invocation of emergency procedures under IC 13-14-10.
- b. The initiation of any action in response to a violation of the pretreatment rules does not preclude initiation of any other response.
- c. A violation of the pretreatment rules includes the following:
  - (1) The indirect discharge of pollutants in contravention of an applicable pretreatment standard or other applicable discharge limitation.
  - (2) The indirect discharge of pollutants without a permit from a significant industrial discharger as determined by IDEM.
  - (3) A violation of discharge limitations or other terms and conditions of the permit where an IWP permit is required under the pretreatment rules.
  - (4) Failure to comply with any other applicable pretreatment requirement.
  - (5) Failure to:
    - (A) allow entry, inspection, and monitoring by representatives of the commissioner when requested in accordance with applicable law;  
or
    - (B) carry out monitoring, recording, and reporting required under this permit.

- d. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights or infringement of Federal, State, or local laws or regulations.

11. Severability

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



**Industrial Wastewater Pretreatment (IWP)**  
**Briefing Memo for**  
**Steel Dynamics, Inc. – Engineered Bar Products Division**  
 Draft: May 2024  
 Final: TBD  
**Indiana Department of Environmental**  
**Management**  
 100 North Senate Avenue  
 Indianapolis, Indiana 46204  
 (317) 232-8603  
 Toll Free (800) 451-6027  
 www.idem.IN.gov

<b>Permittee:</b>	Steel Dynamics, Inc. – Engineered Bar Products Division 8000 North County Road 225 East Pittsboro, IN 46167
<b>Existing Permit Information:</b>	Permit Number: INP000238 Expiration Date: July 31, 2024
<b>Facility Contact:</b>	Michael Brooks, Environmental Engineer (317) 892-7163, mike.brooks@steeldynamics.com
<b>Facility Location:</b>	8000 North County Road 225 East Pittsboro, IN 46167 Hendricks County
<b>Receiving POTW:</b>	Pittsboro POTW P.O. Box 185 Pittsboro, IN 46167 NPDES Permit #IN0020401
<b>Proposed Action:</b>	Renew Permit  Date Application Received: January 31, 2024
<b>Source Category</b>	Industrial Pretreatment
<b>Permit Writer:</b>	Heidi Etter (317) 233-4903, hetter@idem.in.gov

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## **1.0 INTRODUCTION**

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The Indiana Department of Environmental Management (IDEM) received an Industrial Wastewater Pretreatment (IWP) Permit application from Steel Dynamics, Inc. – Engineered Bar Products Division on January 31, 2024. The current five-year permit was issued with an effective date of August 1, 2019 in accordance with 327 IAC 5-2-6(a). A five-year permit is proposed in accordance with 327 IAC 5-2-6(a).

The Federal Water Pollution Control Act of 1972 and subsequent amendments require a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of wastewater to surface waters. Furthermore, Indiana Statute 13-15-1-2 requires a permit to control or limit the discharge of any contaminants into state waters or into a publicly owned treatment works (POTW). This proposed permit action by IDEM complies with both federal and state requirements.

In accordance with Title 40 of the Code of Federal Regulations (CFR) Sections 124.7 and 124.6, as well as Indiana Administrative Code (IAC) 327 Section 5, development of a Statement of Basis, or Briefing Memo, is required for NPDES permits. This document fulfills the requirements established in those regulations.

This Briefing Memo was prepared in order to document the factors considered in the development of IWP Permit effluent limitations. The technical basis for the Briefing Memo may consist of evaluations of prohibited discharge standards, categorical pretreatment standards, existing effluent quality, and receiving POTW limitations.

## **2.0 GENERAL**

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### **2.1 Facility Description**

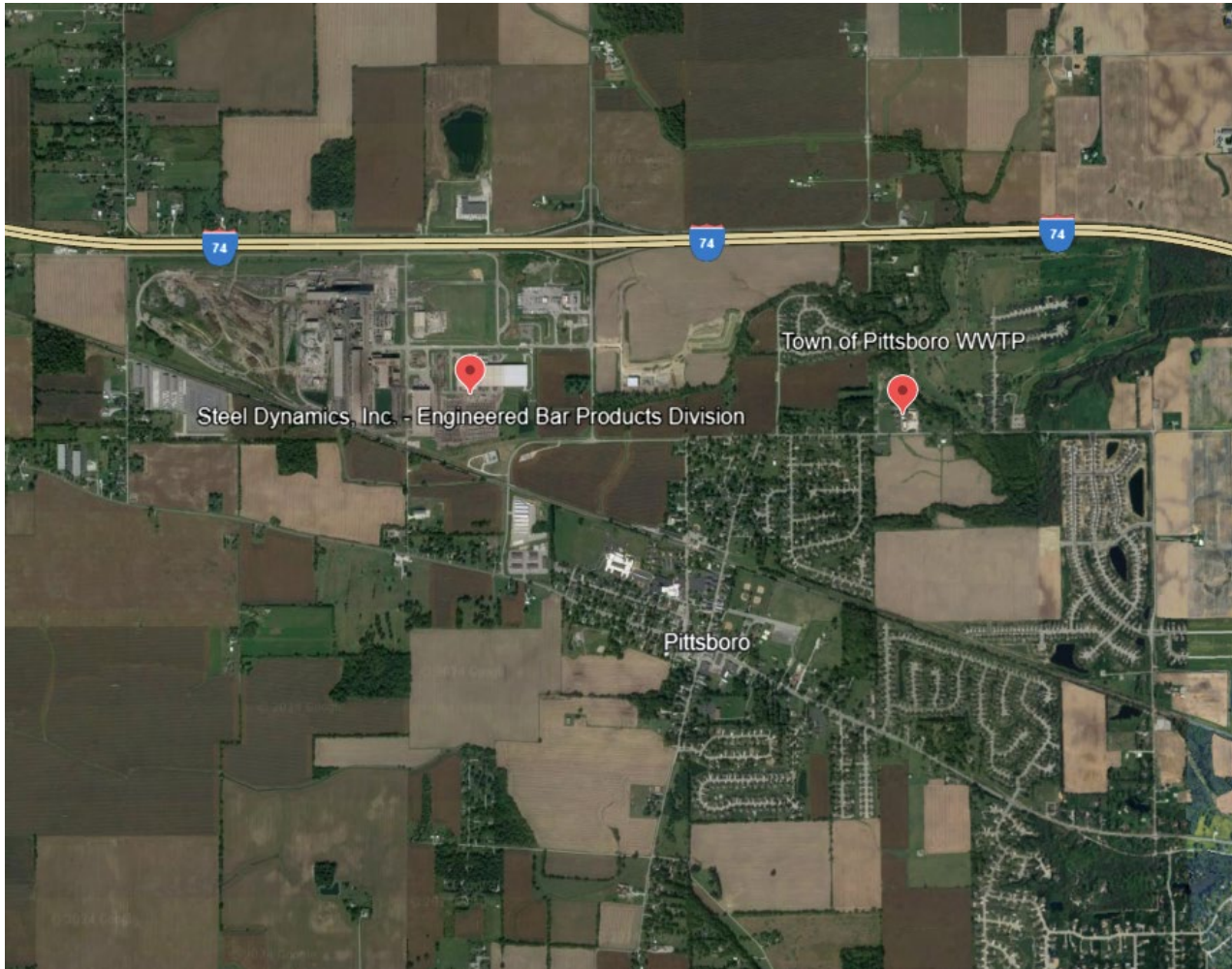
Steel Dynamics, Inc. – Engineered Bar Products Division operates a “Mini-Mill” that produces special bar quality steel and carbon steel bar. Manufacturing processes include melting, continuous casting, vacuum tank degassing, and hot roll milling. The plant normally operates 24 hours/day, 7 days/week.

The wastewater flows from the vacuum degassing and continuous casting processes are subject to Categorical Pretreatment Standards for New Source Iron and Steel Manufacturing operations; Subpart E – Vacuum Degassing Subcategory [40 CFR 420.56] and Subpart F – Continuous Casting Subcategory [40 CFR 420.66]. The standards are production-based (pounds of pollutant per 1,000 pounds of steel processed).

The wastewater flows generated by hot mill rolling are not regulated under Categorical Pretreatment Standards. The wastewater flows generated from the heat treat processes are also not subject to Categorical Pretreatment Standards. These flows were not considered when calculating limits, however, they are subject to the local discharge limits

of the Pittsboro Wastewater Pretreatment Ordinance and National Pretreatment Prohibitions found in 40 CFR 403.

Steel Dynamics, Inc. – Engineered Bar Products Division also operates under NPDES permit #IN0062022, which authorizes and regulates the discharges from Outfalls 103, 004, and 005. This discharge consists of emergency overflow from the slag quench pond, non-contact cooling water, and stormwater.



## 2.2 Receiving POTW

The permittee discharges to the Town of Pittsboro WWTP: a Class II, 1.2 MGD oxidation ditch treatment facility with a fine screen, one oxidation ditch, two final clarifiers, ultraviolet light disinfection, cascade post aeration, and an effluent flow meter. Sludge handling includes a sludge holding tank and aerobic sludge digestion. Final solids are hauled off site for disposal. The POTW does not serve any other permitted pretreatment facilities.

The POTW discharges to the West Fork of White Lick Creek ( $Q_{7,10} = 0$  CFS).

## 2.3 Discharge Description

The permittee discharges wastewaters from the following sources to the POTW:

<u>Source</u>	<u>Flow (GPD)</u>
Process Wastestream #1:	180,000 (1)
Process Wastestream #2:	25,000 (2)
Sanitary:	75,000
Water Softener Backwash:	20,000

- (1) Process Wastestream #1 is wastewater from the bar mill contact cooling water system. Process wastewater collected in the caster scale pit and bar mill scale pit is conditioned for reuse in the mill by removing solids and oils in the scale pits, using rapid sand filtration, and evaporative cooling. This wastestream is generated as the result of cooling water blowdown from the bar mill cooling tower. The wastewater stream passes through the gravel and sand gravity filter (designated as IWP Outfall 102) prior to discharge to the Pittsboro POTW as a combined process and sanitary wastestream through Outfall 001.
- (2) Process Wastestream #2 is wastewater from the quench tank for the heat treat furnaces in the Bar Finishing building. The quench tank holds approximately 25,000 gallons of water with batch discharge expected to occur no more than one time per quarter. While a significant amount of water in the tank evaporates as part of normal operations, periodic change out of the water in the tank is necessary to remove built-up scale and rust. Prior to discharge, the wastestream is sent through a strainer to remove solids larger than 1/8 inch in diameter. The wastewater stream will not contain any added oils or grease. The wastestream will be monitored at Outfall 104 and ultimately discharged to the sanitary sewer through Outfall 006.

## 2.4 Wastewater Pretreatment

Process wastewater is wastewater that comes into direct contact with steel during the manufacturing process. This wastewater is interchangeably referred to as contact wastewater. Contact wastewater is generated by the vacuum degassing, continuous casting, and rolling operations.

All contact wastewater is routed from smaller scale pits and flume flushes to one central location, the Bar Mill Scale Pit, for reconditioning and reuse in the mill.

### Bar Mill Scale Pit

The Bar Mill Scale Pit is the primary starting point for reconditioning process wastewater for reuse in the mill.

- Serves as a large settling basin for the removal of the mill scale from process wastewater.
- Mill scale is removed from the scale pit by an onsite contactor who makes it commercially available to third parties offsite.
- A belt skimmer is used to remove oil contained in process wastewater. Removed oil is pumped to a storage tank. A third party removes used oil from the storage tank for recycling.

### Pressurized Sand Filters

- After settleable solids and oil are removed, wastewater is pumped to a series of nine (9) pressurized sand filters to remove suspended solids.
- Backwash to remove solids from the pressurized sand filters is pumped to the Mud Pit.
- After it is filtered, water is then pumped to the Bar Mill Contact Cooling Tower.

### Bar Mill Contact Cooling Tower #1

The Bar Mill Contact Cooling Tower uses air and water to reduce the incoming water temperature through evaporation.

- Make up water is added to account for evaporative losses.
- After cooling, the reconditioned water is then supplied to the continuous casting and rolling operations to be reused for descaling and cooling.
- Wastewater from both processes is returned to the Bar Mill Scale Pit and the reconditioning process starts over again.
- Depending on the production load and chemical analysis, chemicals may be added. Primary chemical additions may include scale and corrosion inhibitors, coagulants, flocculants, caustic, sulfuric acid, and biocides.
- Wastewater from the Bar Mill Contact Cooling Tower is periodically blown down to remove accumulated dissolved solids.
  - Wastewater blowdown is directed to either the Slag Quench Pond for use in slag cooling and dust control or the Gravity Sand and Gravel Filter that discharges to the POTW via Outfall 102.

### Mud Pit

- Backwash from the Pressurized Sand Filters and Gravity Sand and Gravel Filter is pumped to the Mud Pit and mixed with water to create a liquid slurry prior to pumping to the Clarifier.
- Chemical additions may include coagulants and oil dispersants to further remove oil and solids.

### Clarifier

- The liquid slurry in the Mud Pit is pumped to the Clarifier to further remove oil and solids.
- Chemical additions may include coagulants, oil dispersants, and caustic.
- Clarified water may be pumped to the Slag Quench Pond, Gravity Sand and Gravel Filter for discharge to the POTW, or introduced back into the Bar Mill Scale Pit.
- Sludge from the Clarifier is pumped to a holding tank for dewatering at a filter press.



### Filter Press

- A filter press is used to dewater the sludge. The filter cake is collected in a roll-off box and shipped to a landfill.
- Waste characterization is periodically performed on the filter cake.
- The overflow liquid from the Filter Press drains into the Mud Pit.

Effluent pretreatment is provided for process wastewater from the steel making operations prior to discharge via Outfall 102. Discharge from Outfall 102 then combines with sanitary wastewater and water softener backwash through Outfall 001 to the POTW. The process wastewater from the heat treat operations does not receive pretreatment. This wastewater is discharged via Outfall 104 to the sanitary sewer through Outfall 006 to the POTW.

A water treat flow diagram for the continuous casting and rolling operations has been included as Figure 1 and a heat treat cooling water systems flow diagram has been included as Figure 2.

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-23-6. Based on information supplied by the permittee, the facility is required to have a Class C Operator.

Figure 1: Water Treat Flow Diagram

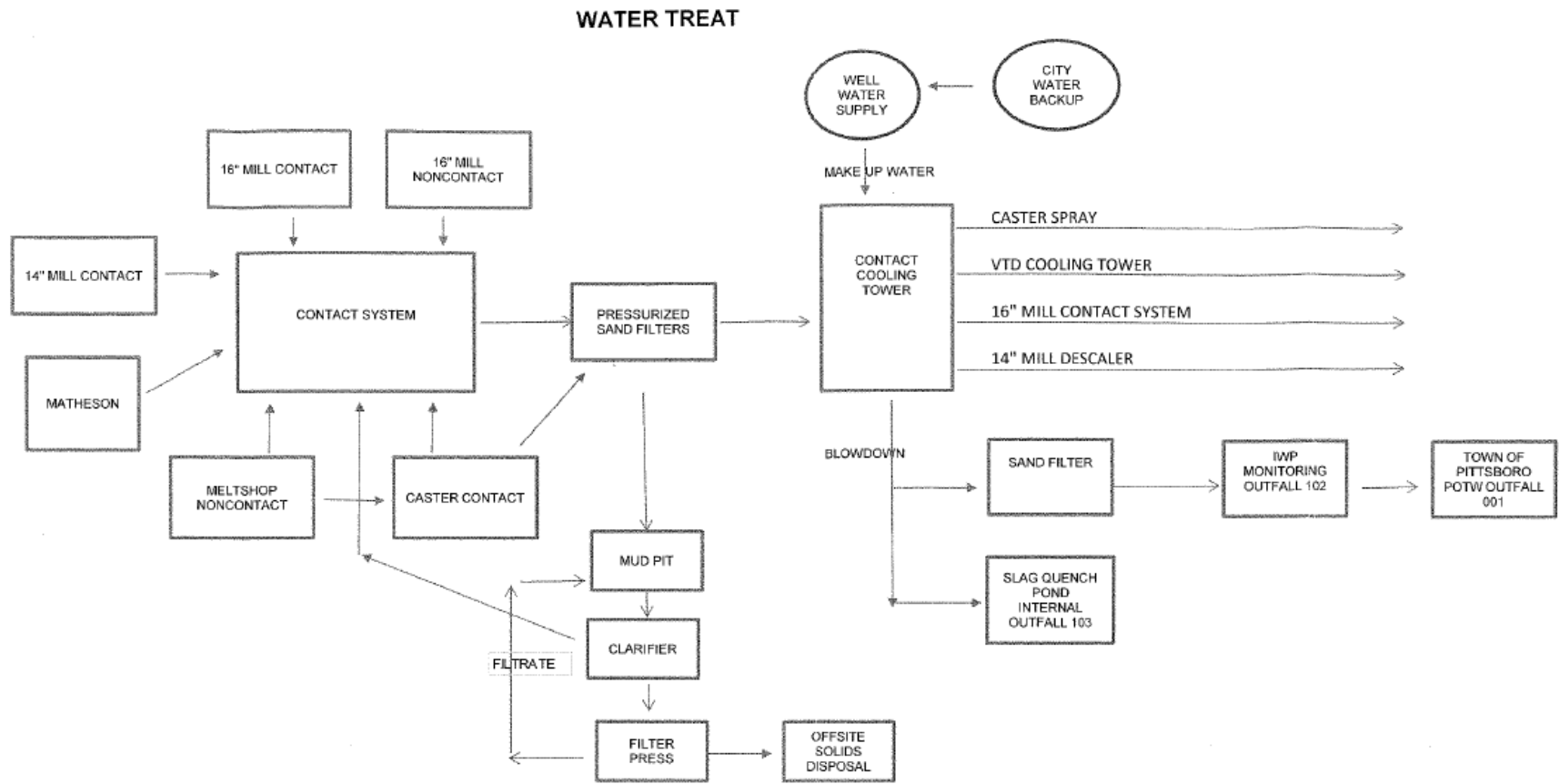
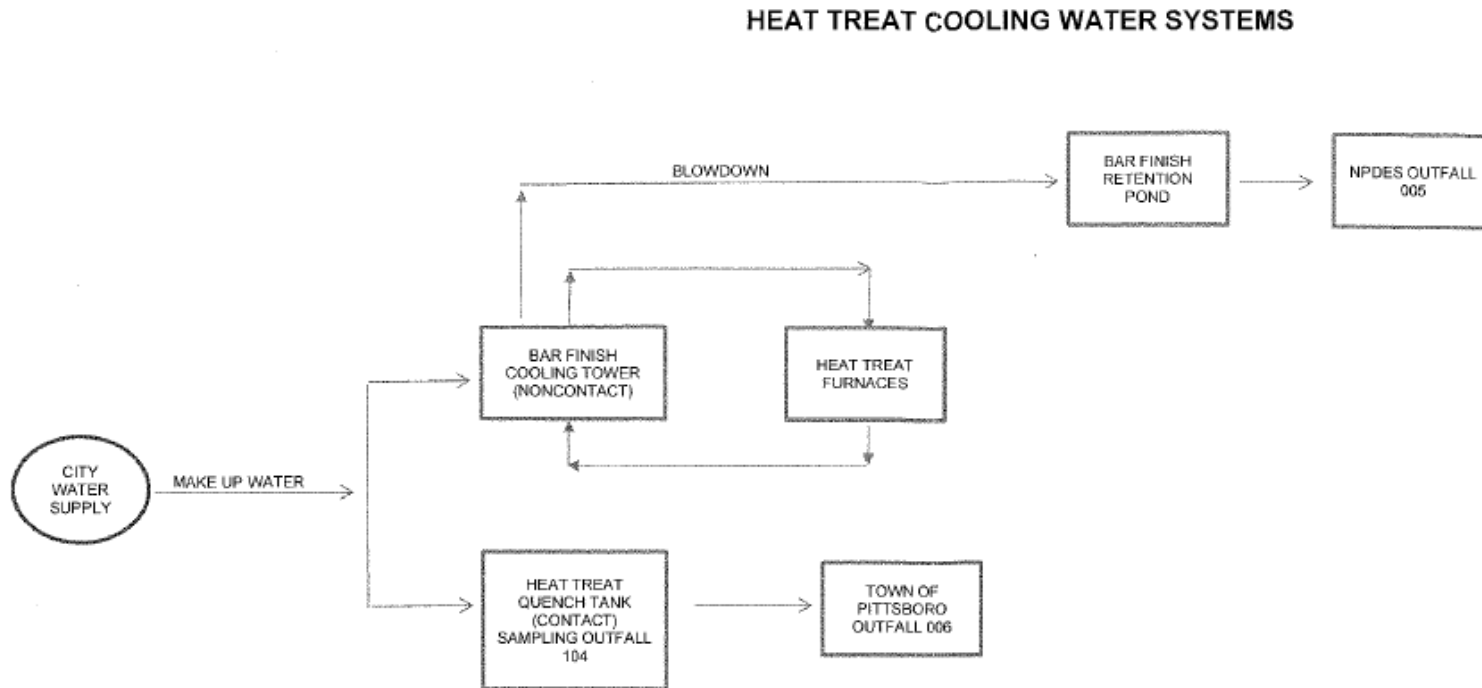


Figure 2: Heat Treat Flow Diagram



## **2.5 Changes in Operation**

In the permit application, no changes in operation were identified as occurring since the previous permit renewal.

## **3.0 PERMIT HISTORY**

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### **3.1 Compliance History**

The purpose of this section is to summarize any violations and enforcement actions associated with the permit.

A review of this facility's discharge monitoring data was conducted for compliance verification. This review indicates the following permit limitation violations at Outfall 102 between August 2019 and March 2024; one (1) pH violation and one (1) Zinc violation. There are no pending or current enforcement actions regarding this IWP permit.

## **4.0 PERMIT DRAFT DISCUSSION**

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### **4.1 Selection of Parameters**

#### Outfall 102

This permit regulates the substances and parameters in the permittee's wastewater that are subject to New Source Iron and Steel Manufacturing operations; Subpart E – Vacuum Degassing Subcategory [40 CFR 420.56] and Subpart F – Continuous Casting Subcategory [40 CFR 420.66] standards.

#### Outfall 104

Wastewater discharges from the heat treat process are not subject to Categorical Pretreatment Standards. Lead and Zinc have been retained as parameters from the previous permit, as other similar regulated processes also include discharge standards for Lead and Zinc.

### **4.2 Selection of Limits**

#### Outfall 102

The permittee's discharge must comply with New Source Iron and Steel Manufacturing operations; Subpart E – Vacuum Degassing Subcategory [40 CFR 420.56] and Subpart F – Continuous Casting Subcategory [40 CFR 420.66] standards that apply at the end of process and any existing local ordinance limits that apply at the end of pipe.

Steel Dynamics, Inc. – Engineered Bar Products Division shall report the daily maximum mass and the monthly average mass in pounds per day (lbs/day). The following equation was used to calculate mass limits from the categorical standards:

$$\text{Mass Limit} \left( \frac{\text{lbs}}{\text{day}} \right) = \text{Categorical Standard} \left( \frac{\text{lbs}}{1,000 \text{ lbs product}} \right) \times \frac{\text{tons}}{\text{day}} \times \frac{2,000 \text{ lbs}}{\text{ton}}$$

The production rate used is 3,846 tons/day. This production rate is based on the production during the high month of the previous year (February 2023), in accordance with 40 CFR 420.04(b).

In accordance with 327 IAC 5-18-4(e)(3), the permittee shall notify IDEM within two (2) business days after having a reasonable basis to know that the production level will significantly change within the next calendar month. If the permittee doesn't notify IDEM of such anticipated change, the requirement to meet the limits based on the original estimate of the long-term average production rate shall remain effective. According to EPA's Guidance Manual for the Use of Production Based Pretreatment Standards and the Combined Wastestream Formula, a change in the long-term average production or flow rate of greater than 20 percent is considered significant.

**Table 1: Mass Limits for Total Lead and Total Zinc**

		Total Lead		Total Zinc	
		Daily Max	Monthly Avg	Daily Max	Monthly Avg
Vacuum Degassing Subcategory 40 CFR 420.56	Categorical Standard (lbs/1,000 lbs product)	0.0000939	0.0000313	0.000141	0.0000469
	Mass Limit (lbs/day)	0.72	0.24	1.08	0.36
Continuous Casting Subcategory 40 CFR 420.66	Categorical Standard (lbs/1,000 lbs product)	0.0000939	0.0000313	0.000141	0.0000469
	Mass Limit (lbs/day)	0.72	0.24	1.08	0.36
<b>Total Mass Limit (lbs/day)</b>		<b>1.44</b>	<b>0.48</b>	<b>2.16</b>	<b>0.72</b>

**Example Calculation: Total Lead – Daily Maximum**

Vacuum Degassing:  $0.0000939 \left( \frac{\text{lbs}}{1,000 \text{ lbs product}} \right) \times 3,846 \frac{\text{tons}}{\text{day}} \times \frac{2,000 \text{ lbs}}{\text{ton}} = 0.72 \frac{\text{lbs}}{\text{day}}$

Continuous Casting:  $0.0000939 \left( \frac{\text{lbs}}{1,000 \text{ lbs product}} \right) \times 3,846 \frac{\text{tons}}{\text{day}} \times \frac{2,000 \text{ lbs}}{\text{ton}} = 0.72 \frac{\text{lbs}}{\text{day}}$

Total Mass Limit:  $0.72 \frac{\text{lbs}}{\text{day}} + 0.72 \frac{\text{lbs}}{\text{day}} = 1.44 \frac{\text{lbs}}{\text{day}}$

The Town of Pittsboro Sewer Use Ordinance (SUO) contains local discharge limits for specific pollutants to prohibit contribution by industrial users that may cause interference or pass through at the POTW. These limits in the SUO are expressed as concentration-based daily maximums, and some may be more stringent than the applicable categorical pretreatment daily maximums limits. To compare the applicable categorical pretreatment limits to the SUO limits, the calculated values in Table 1 above were first converted to concentration-based values (mg/l) using the following formula:

$$\text{Concentration – Based Value } \left( \frac{mg}{l} \right) = \frac{lbs/day}{8.345 \times \text{process flow (MGD)}}$$

This resulted in the following concentration-based values:

Daily Maximums= 0.95 mg/l for Lead and 1.44 mg/l for Zinc  
 Monthly Averages= 0.32 mg/l for Lead and 0.48 mg/l for Zinc

**Example Calculation: Total Lead – Concentration-Based Daily Maximum**

$$\frac{1.44 \text{ lbs/day}}{8.345 \times 0.18 \text{ MGD}} = 0.95 \text{ mg/l}$$

Next, the categorical standards were adjusted due to the combined wastestreams at the sample site. The categorical process flows account for approximately 65% of the total wastestream that is discharged to the POTW via Outfall 001. Therefore, the categorical limitations were adjusted by factoring the percentage process flow to the total wastestream using the Combined Wastestream Formula (CWF) below:

$C_T$  = Adjusted concentration limit

$C_i$  = Categorical Pretreatment Standard = Daily Maximums of 0.95 mg/l for Lead and 1.44 mg/l for Zinc, Monthly Averages of 0.32 mg/l for Lead and 0.48 mg/l for Zinc

$F_i$  = Avg. flow of regulated wastestream = 180,000 GPD (Process Wastestream #1)

$F_D$  = Avg. flow of dilute wastestream = 95,000 GPD (70,000 GPD Sanitary + 25,000 GPD Water Softener Backwash)

$F_T$  = Avg. total flow = 275,000 GPD (180,000 GPD + 95,000 GPD)

$$C_T = \frac{C_i * F_i}{F_i} \times \frac{F_T - F_D}{F_T}$$

This resulted in the following adjusted values:

Daily Maximums= 0.62 mg/l for Lead and 0.94 mg/l for Zinc  
 Monthly Averages= 0.21 mg/l for Lead and 0.31 mg/l for Zinc

**Example Calculation: Total Lead – Adjusted Daily Maximum**

$$\frac{0.95 \text{ mg/l} \times 180,000 \text{ GPD}}{180,000 \text{ GPD}} \times \frac{275,000 \text{ GPD} - 95,000 \text{ GPD}}{275,000 \text{ GPD}} = 0.62 \text{ mg/l}$$

These adjusted categorical limitations can now be compared to the local SUO limitations, and the more stringent of the two shall be applied:

**Table 2: Comparison of Limits at Outfall 102**

Parameters	FEG (mg/l)		SUO (mg/l)	Adjusted Limits (CWF) (mg/l)	
	Daily Max	Monthly Avg	Daily Max	Daily Max	Monthly Avg
Lead	0.95	0.32	<b>0.33</b>	0.62	<b>0.21</b>
Zinc	1.44	0.48	9.0	<b>0.94</b>	<b>0.31</b>

Most of the adjusted categorical limitations were protective of the SUO, except for the daily maximum limitation for Lead. The local SUO daily maximum limitation for Lead of 0.33 mg/l is more stringent than the adjusted categorical limitation of 0.62 mg/l. Therefore, the Town of Pittsboro SUO’s daily maximum limitation for Lead has been incorporated into the permit to comply with 327 IAC 5-18-9 which states that in addition to the applicable pretreatment standard, the most stringent limitation must be applied to protect the POTW.

The permittee stated in information received on May 23, 2014 that there are safety concerns with measuring the required end-of-pipe samples for Lead. Since the permittee has elected to take samples after process and prior to combination with sanitary wastewater and water softener backwash flows rather than end-of-pipe, the federal limitations that are protective of the POTW and the local daily maximum limitation for Lead will be placed at Outfall 102.

The permittee has requested in previous renewals, in accordance with 327 IAC 5-18-4, that the applicable Categorical Pretreatment Standards are expressed as mass limits in the permit. Therefore, the federal limitations that are protective of the POTW will be applied as mass limits at Outfall 102, while the local daily maximum limitation for Lead will be applied as a concentration-based value since it is expressed as such in the local SUO.

Outfall 104

Since wastewater discharges from the heat treat process are not subject to Categorical Pretreatment Standards, the limits applied at this outfall are the local daily maximum limitations for Lead and Zinc provided in the Town of Pittsboro SUO.

**4.3 Self-Monitoring Frequency**

Self-Monitoring frequency is determined by the pollutants present in the permittees process and compliance history. To assure compliance with the limits and terms of this permit, State rules [327 IAC 5-21-9 and 10] require the permittee to: (i) monitor the final pretreated discharge at a minimum frequency; and (ii) report the results to this agency. To fulfill this requirement, the samples must be: (i) representative of the daily discharge; and (ii) collected, preserved and analyzed using U.S. EPA-approved materials and methods.

## 5.0 PERMIT LIMITATIONS

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### 5.1 Summary of Limits and Basis for Each:

#### Outfall 102

During the period beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 102 [1][2]. Outfall 102 is located at the discharge from the pretreatment system prior to combination with dilution streams. Such discharge shall be limited and monitored by the permittee as specified below:

Table 1

<u>Parameter</u> [3]	<u>Discharge Limitations</u>		<u>Unit</u>	<u>Monitoring Requirements</u>	
	<u>Daily Maximum</u>	<u>Monthly Average</u>		<u>Measurement Frequency</u>	<u>Sample Type</u> [4]
Flow [5]	Report	Report	MGD	1 X Daily	24-Hr. Total
Lead (Pb)	-----	0.48 [6]	lbs/day	2 X Weekly	24-Hr. Comp.
Lead (Pb)	0.33 [7]	-----	mg/l	2 X Weekly	24-Hr. Comp
Zinc (Zn)	2.16 [6]	0.72 [6]	lbs/day	2 X Weekly	24-Hr. Comp.

Table 2

<u>Parameter</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Unit</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
pH [8]	5.5 [7]	10.0 [7]	s.u.	1 X Daily	Grab

[1] Outfall 102 shall be designated as process wastewaters and contains no dilution streams.

[2] The discharge shall not exceed the local limits in the Sewer Use Ordinance upon entering the POTW.

[3] All metals shall be analyzed as Total Recoverable Metals.

[4] A "24-hour composite sample" means a sample consisting of at least 3 individual flow-proportional samples of wastewater, consisting of aliquots withdrawn throughout the 24-hour discharge period. The aliquots may be: (i) uniform aliquots withdrawn at uniform flow intervals; (ii) flow-proportional aliquots withdrawn at uniform time intervals; or (iii) for batch discharge, uniform aliquots withdrawn from uniform batch volumes. A flow-proportioned composite sample may be obtained by:

- (1) recording the discharge flow rate at the time each individual sample is taken,
- (2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,
- (3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,



(4) then multiply the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.

Alternatively, a 24-hour composite sample may be obtained by an automatic sampler on an equal time interval basis over a twenty-four hour period provided that a minimum of 24 samples are taken and combined prior to analysis. The samples do not need to be flow-proportioned if the permittee collects samples in this manner.

- [5] The flow must be measured and recorded using valid flow measurement devices, not estimated. The flow monitoring device must be calibrated at least once every twelve (12) months.
- [6] Based on production-based categorical standards [40 CFR 420.56] and [40 CFR 420.66] and the following rates: production rate = 3,846 Tons/Day or 7,682,000 lbs/day.
- [7] Based on local ordinance [Town of Pittsboro Ordinance No. 2002-6 (Table 1 Limitations)].
- [8] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

**Outfall 104**

During the period beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 104 [1][2]. Outfall 104 is located at the heat treat tank prior to combination with dilution streams. Such discharge shall be limited and monitored by the permittee as specified below:

Table 1

<u>Parameter [3]</u>	<u>Discharge Limitations</u>		<u>Unit</u>	<u>Monitoring Requirements</u>	
	<u>Daily Maximum</u>	<u>Monthly Average</u>		<u>Measurement Frequency [4]</u>	<u>Sample Type</u>
Flow [5]	Report	-----	MGD	Each Batch	24-Hr. Total
Lead [Pb]	0.33 [6]	-----	mg/l	Each Batch	Grab
Zinc [Zn]	9.0 [6]	-----	mg/l	Each Batch	Grab

Table 2

<u>Parameter</u>	<u>Daily Minimum</u>	<u>Daily Maximum</u>	<u>Unit</u>	<u>Measurement Frequency [4]</u>	<u>Sample Type</u>
pH [7]	5.5 [6]	10.0 [6]	s.u.	Each Batch	Grab

- [1] Outfall 104 shall be designated as process wastewaters and contains no dilution streams.
- [2] The discharge shall not exceed the local limits in the Sewer Use Ordinance upon entering the POTW.
- [3] All metals shall be analyzed as Total Recoverable Metals.
- [4] In situations of intermittent or batch discharge, all parameters required to be monitored should be sampled during the first representative discharge occurring during the monitoring period and then reported on the appropriate state and federal forms at the end of the monitoring period.

If a representative discharge occurs at any time during the monitoring period as identified for that individual parameter, then it is a violation of this permit to not collect a sample and report those results. At the first opportunity that a representative discharge occurs during the monitoring period, it should be sampled for all the required parameters during that monitoring period. Waiting to collect a sample until the end of a monitoring period risks missing a representative sample collection opportunity, and it is considered a violation of this permit to not collect a sample, analyze and report those results, when there was a discharge for that monitoring period.

- [5] The flow may be estimated based on tank volume and the level of wastewater in the tank at the time of discharge.
- [6] Based on local ordinance [Town of Pittsboro Ordinance No. 2002-6 (Table 1 Limitations)].
- [7] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

## **5.2 Permit Processing/Public Comment**

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notices/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public.