National Pollutant Discharge Elimination System

Fact Sheet for
ArcelorMittal Burns Harbor LLC
Draft: February 2016
Final:

Indiana Department of Environmental Management

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Permittee:	ArcelorMittal Burns Harbor, LLC 250 West Highway 12 Burns Harbor, IN 46304
Existing Permit Information:	Permit Number: IN0000175 Expiration Date: February 29, 2016
Source Contact:	Robert Maciel, Environmental Manager (219)787-4961 or Robert.Maciel@arcelormittal.com
Source Location:	250 West Highway 12 Burns Harbor, IN 46304 Porter County
Receiving Stream:	Samuelson Ditch; Burns Waterway Harbor, and Lake Michigan
Proposed Permit Action:	Renew
Date Application Received:	August 31, 2015
Source Category	NPDES Major – Industrial
Permit Writer:	Richard Hamblin (317)232-8696 or rhamblin@idem.in.gov

Table of Contents

1.0 Introduction....3
2.0 Facility description....3
2.1 General....3
2.2 Outfall Locations....4
2.3 Wastewater Treatment....5
2.4 Changes in Operation....7
2.5 Facility Storm Water....8
3.0 Permit History....8
3.1 Compliance history....8
4.0 Receiving Water....8
4.1 Receiving Stream Water Quality....9
5.0 Permit limitations....10
5.1 Existing Permit Limits....10
5.2 Technology-Based Effluent Limits (TBEL)....12
5.3 Water Quality-Based Effluent Limits....22
5.4 Whole Effluent Toxicity Testing (WETT)....25
5.5 Antibacksliding....25
5.6 Antidegradation....25
5.7 Storm Water....26
5.8 Water Treatment Additives....29
6.0 Permit Draft Discussion....31
6.1 Discharge Limitations....31
6.2 Monitoring Conditions and Rationale....34
6.3 Schedule of Compliance....37
6.4 Special Conditions and Other Permit Requirements....37
6.4.1 Clean Water Act (CWA) Section 316(a) Alternative Thermal Effluent Limitations....37
The 316(a) ATEL Application Process....38
6.4.2 Clean Water Act Section 316(b) Cooling Water Intake Structure(s) (CWIS)....40
6.4.3 301(g) Proposed Modified Effluent Limits....48
6.4.4 Polychlorinated Biphenyl (PCB)....49
6.5 Spill Response and Reporting Requirement....50
6.6 Permit Processing/Public Comment....50

1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a National Pollutant Discharge Elimination System (NPDES) Permit application from the permittee on August 31, 2015. 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 NPDES permit for the discharge of wastewater to surface waters. Furthermore, Indiana Code (IC) 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. 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 124.8 and 124.56, as well as Indiana Administrative Code (IAC) 327 Article 5, development of a Fact Sheet is required for NPDES permits. This document fulfills the requirements established in those regulations.

This Fact Sheet was prepared in order to document the factors considered in the development of NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, receiving water conditions, and wasteload allocations to meet Indiana Water Quality Standards. Decisions to award variances to Water Quality Standards or promulgated effluent guidelines are justified in the Fact Sheet where necessary.

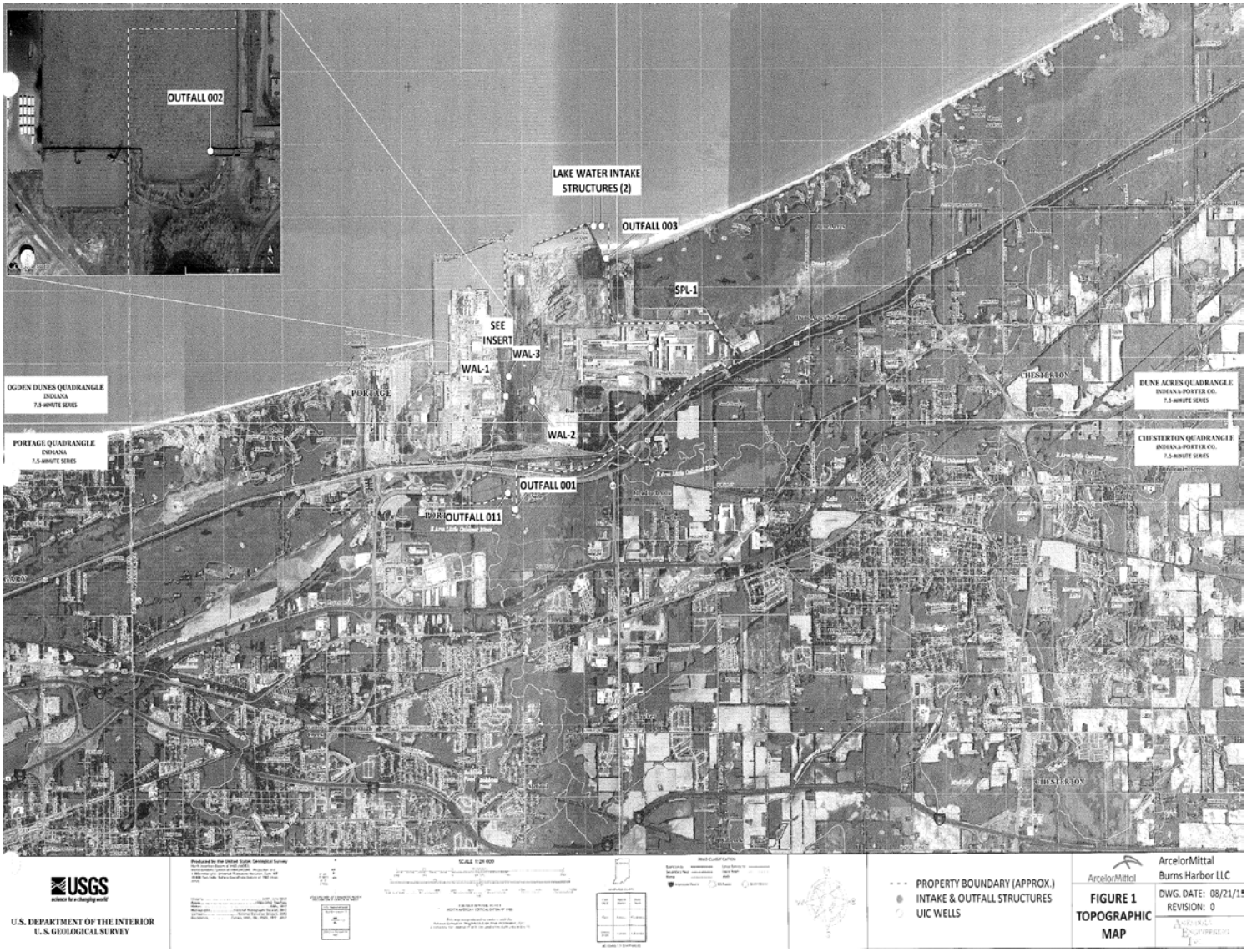
2.0 FACILITY DESCRIPTION

2.1 General

ArcelorMittal Burns Harbor is classified under Standard Industrial Classification (SIC) Code 3312 – Integrated Steel Mill. The facility manufactures intermediate and final products consisting of coke and coke making byproducts, sinter, molten iron, raw steel, steel slabs, hot rolled strip, plate, cold rolled strip and hot dip galvanized strip. It is one of the largest fully integrated steel mills in North America, with the capacity to produce approximately 5 million tons of raw steel per year.

A map showing the location of the facility has been included as Figure 1.

Figure 1: Facility Location



2.2 Outfall Locations

Outfall 001	Latitude: 41º 36’ 45” Longitude: 87º 08’ 50”
Outfall 002	Latitude: 41º 38’ 07” Longitude: 87º 08’ 51”
Outfall 003	Latitude: 41º 38’ 42” Longitude: 87º 07’ 38”

2.3 Wastewater Treatment

A description of the discharge for each outfall is provided below followed by a general description of wastewater treatment for that respective wastestream. A Flow Diagram has been included as Figure 2.

Outfall 001

The discharge from Outfall 001 is comprised of treated wastewater from the Secondary Wastewater Treatment Plant (Internal Outfall 011), non-contact cooling water, storm water, and Lake Michigan water. Lake Michigan water can be added to the discharge canal via water cannon during warm weather months for additional temperature control. The added Lake Michigan water does not contribute to Outfall 011 discharge, but does contribute to the Outfall 001 discharge and aids in achieving the final limitations for temperature at Outfall 001. The discharge from Outfall 001 has an average discharge of approximately 135 MGD.

Internal Outfall 011

The discharge from Internal Outfall 011 consists of treated wastewater from the Secondary Wastewater Treatment Plant (SWTP) and treated effluent from the Town of Burns Harbor sanitary wastewater treatment plant (NPDES Permit No. INJ060801). The SWTP includes pH adjustment, oil separation, flocculation/coagulation, and clarification. The SWTP treats the following process wastewaters:

- Sintering
- Iron Making (Blast Furnaces C and D)
- Steel Making (Basic Oxygen Furnaces Nos. 1, 2, and 3)
- Vacuum Degassing
- Continuous Casting (Casters Nos. 1 and 2)
- Hot Forming (110” Plate Mill, 160” Plate Mill, and 80” Hot Strip Mill)
- Acid Pickling (Nos. 1 and 2 Picklers, Continuous Heat Treat Line)
- Cold Rolling (Tandem Mill and Temper Mill)
- Alkaline Cleaning (Continuous Heat Treat Line and Hot Dip Coating Line)
- Galvanizing (Hot Dip Coating)
- Landfill leachate from the Deerfield Storage Facility

The blast furnaces, basic oxygen furnaces (BOFs), and continuous casters are equipped with dedicated, high rate wastewater treatment and recycle systems. The blast furnace recycle system consists of two thickeners, a cooling tower and a pump house for recirculating treated process water for reuse at the blast furnaces. Periodic blowdown occurs throughout the day in order to maintain a hydraulic balance within the recycle system. The blowdown is directed to the SWTP for additional treatment. In the event the recycle system experiences elevated concentrations of cyanide, a steady-state blowdown can be directed to an alkaline chlorination system to destroy the cyanide before discharge to the SWTP.

The BOF recycle system consists of two thickeners that treat the gas cleaning process waters prior to recycling back to the gas cleaning system. A blowdown from this system is directed to the SWTP.

The two continuous casters are equipped with scale pits for the removal of suspended solids and oil. The hot forming mills (110" Plate Mill, 160" Plate Mill, and 80" Hot Strip Mill) are also equipped with scale pits and oil skimming equipment. These facilities recycle a portion of the scale pit effluent water for use in the production process and the balance is discharged to the SWTP.

The sinter plant has a recirculating gas cleaning system (Internal Outfall 111). The blowdown from this system is directed to the Reclamation Services Building (RSB) for treatment. After pH adjustment and the addition of flocculation/coagulation polymers, the wastewaters are directed to the final RSB thickener for preliminary clarification. The effluent of the final RSB thickener discharges to the SWTP.

Wastewaters generated from the galvanizing line are filtered prior to remove particulate zinc prior to being sent to the SWTP.

Waste pickling acids are either used on site to neutralize wastewaters, sold for off-site recycling, or disposed of by deep well injection. Pickling rinse waters and fume scrubber blowdown are combined with the pretreated wastewaters from the cold rolling operations and directed to the SWTP.

Process wastewater from the vacuum degassing is directed straight to SWTP.

The effluent from the SWTP is routed through two polishing lagoons prior to discharge via Internal Outfall 011. The lagoons are equipped with aerators for temperature control.

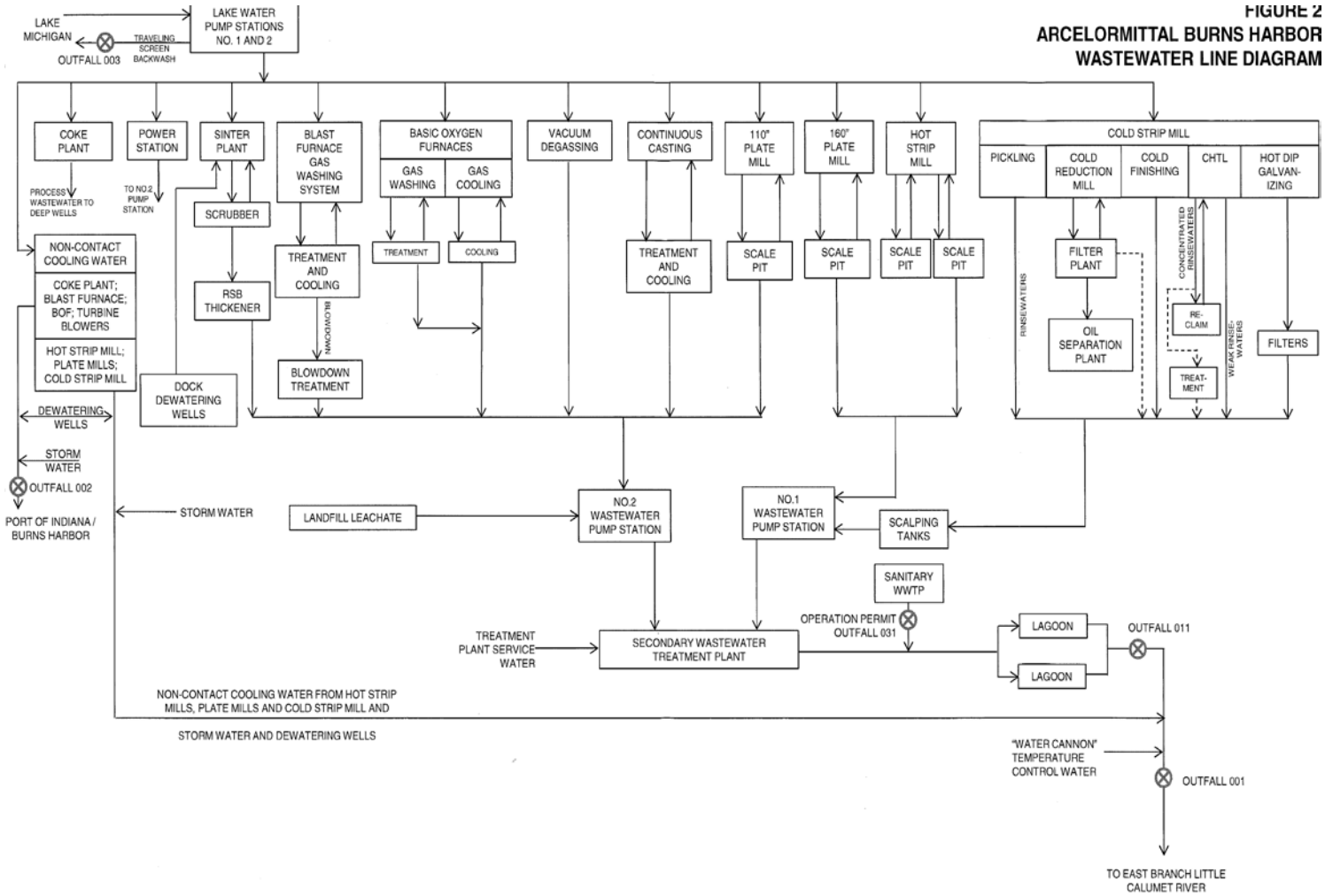
Sludges generated by the SWTP are disposed on-site in the Dearfield Storage Facility, a permitted Type I solid waste landfill. Leachate generated at this facility is directed back to the SWTP for further treatment.

The discharge from Internal Outfall 011 has an average discharge of approximately 72 MGD.

<u>Outfall 002</u>
The discharge from Outfall 002 consists of once-thru noncontact cooling water and storm water from the coke plant, sinter plant, blast furnaces, steelmaking area, power station and the shops complex. Outfall 002 also receives groundwater from building dewatering at the shops complex, power station, and slab yard. The discharge from Outfall 002 has an average discharge of approximately 221 MGD.

<u>Outfall 003</u>
The discharge from Outfall 003 consists of backwash from the No. 1 and 2 Lake Water Pump Station's traveling screens. Lake Michigan water is used to backwash the traveling screens. The discharge from Outfall 003 has an average discharge of approximately 1.4 MGD.

Figure 2: Flow Diagram



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 5-22-5. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7. IDEM has given the permittee a Class D industrial wastewater treatment plant classification.

2.4 Changes in Operation

No changes in operations at this facility during the previous permit period were identified in the permit renewal application.

2.5 Facility Storm Water

The ArcelorMittal Burns Harbor plant consists of a total of approximately 276 acres of impervious surface (buildings and roads) and 3,724 acres of pervious surface. Stormwater is directed to Outfall 001 or 002. The contribution of stormwater to Outfall 002 is from the coke plant, sinter plant, blast furnaces, steelmaking area, power station and the shops complex. Outfall 001 discharges stormwater drainage from the rest of the plant.

From August 2011 to December 2011, the different areas of ArcelorMittal Burns Harbor were evaluated for the presence of non-storm water discharges. These evaluations are documented in the plant's SWPPP. Please refer to Section 5.7 of this Fact Sheet for SWPPP requirements.

3.0 PERMIT HISTORY

3.1 Compliance history

A review of the computerized database for tracking permit compliance lists the following permit limitation violations between October 2012 and October 2015:

Outfall 001 –
Temperature [7/13]; Ammonia, as N [7/14, 11/14]; WETT [5/13, 6/13, 11/13, 12/13, 5/14, 6/14, 5/15, 8/15]

Outfall 002 –
Temperature [6/13]

Outfall 011 –
TSS [2/13, 6/13, 11/13, 1/14]; Zinc [4/13, 5/13, 6/13]; TRC [9/13]; O+G [11/13, 4/14, 11/14]

4.0 RECEIVING WATER

The receiving stream for Outfall 001 is the East Branch of the Little Calumet River (EBLC). The $Q_{7,10}$ low flow value of EBLC is 21 cfs and shall be capable of supporting a well-balanced warm water aquatic community and full body contact recreation in accordance with 327 IAC 2-1.5-5. The EBLC and its tributaries downstream to Lake Michigan via Burns Ditch are designated in 327 IAC 2-1.5-5(a)(3)(B) as salmonid waters and shall be capable of supporting a salmonid fishery. In addition, the EBLC enters the Indiana Dunes National Lakeshore at S.R. 20 (upstream of Outfall 001) and leaves the Indiana Dunes National Lakeshore about 0.5 miles upstream of its confluence with Portage-Burns Waterway (about 1.0 miles downstream of Outfall 001). All waters incorporated in the Indiana Dunes Nation Lakeshore are designated in 327 IAC 2-1.5-19(b)(3) as an Outstanding State Resource Water (OSRW).

The receiving water for Outfall 002 is the east harbor arm of Port of Indiana – Burns Harbor. The discharge from Outfall 002 is considered to discharge to the Indiana portion of the open waters of Lake Michigan. The Indiana portion of the open waters of Lake

Michigan shall be capable of supporting a well-balanced warm water aquatic community and full body contact recreation in accordance with 327 IAC 2-1.5-5. Lake Michigan is designated in 327 IAC 2-1.5-5(a)(3)(G) as salmonid waters and shall be capable of supporting a salmonid fishery. In addition, the Indiana portion of the open waters of Lake Michigan are designated in 327 IAC 2-1.5-19(b)(2) as an OSRW; a public water supply per 327 IAC 2-1.5-5(a)(4); and an industrial water supply per 327 IAC 2-1.5-5(a)(5).

The permittee discharges to a waterbody that has been identified as a water of the state within the Great Lakes system. Therefore, in addition to OSRW antidegradation implementation procedures, it is subject to other NPDES requirements specific to Great Lakes system dischargers under 327 IAC 2-1.5 and 327 IAC 5-2-11.2, and 327 IAC 5-2-11.4-6. These rules address water quality standards applicable to dischargers within the Great Lakes system and reasonable potential to exceed water quality standards procedures.

In accordance with 327 IAC 2-1.3, language in this renewed permit specifically prohibits the permittee from undertaking deliberate actions that would result in new or increased discharges of BCC's or new or increased permit limits for non-BCC's, or from allowing a new or increased discharge of a BCC from an existing or proposed industrial user, without first proving that the new or increased discharge would not result in a significant lowering of water quality, or by submission and approval of an antidegradation demonstration to the IDEM.

4.1 Receiving Stream Water Quality

Section 303(d) of the Clean Water Act requires states to identify waters, through their Section 305(b) water quality assessments, that do not or are not expected to meet applicable water quality standards with federal technology based standards alone. States are also required to develop a priority ranking for these waters taking into account the severity of the pollution and the designated uses of the waters. Once this listing and ranking of impaired waters is completed, the states are required to develop Total Maximum Daily Loads (TMDLs) for these waters in order to achieve compliance with the water quality standards. Indiana's 2012 303(d) List of Impaired Waters was developed in accordance with Indiana's Water Quality Assessment and 303(d) Listing Methodology for Waterbody Impairments and Total Maximum Daily Load Development for the 2012 Cycle.

The EBLC (Assessment-Unit INC0159_01), HUC (40400010500)) is on the 2012 303(d) list for impairments for Impaired Biotic Communities, Dissolved Oxygen, *E. coli*, and PCBs in Fish Tissue. A TMDL for the EBLC has been developed for *E. Coli.*

The Indiana portion of the open waters of Lake Michigan in this area (Assessment-Unit INC0163G_G1093), HUC (40400010600)) is on the 2012 303(d) list for impairments for *E. coli*, PCBs in Fish Tissue, and mercury in Fish Tissue. A TMDL for the EBLC has been developed for *E. Coli.*

5.0 PERMIT LIMITATIONS

Two categories of effluent limitations exist for NPDES permits: Technology-Based Effluent Limits (TBELs) and; Water Quality-Based Effluent Limits (WQBELs).

TBELs are developed by applying the National Effluent Limitation Guidelines (ELGs) established by USEPA for specific industrial categories. TBELs are the primary mechanism of control and enforcement of water pollution under the Clean Water Act (CWA). Technology based treatment requirements under section 301(b) of the CWA represent the minimum level of control/treatment using available technology that must be imposed in a section 402 permit (40 CFR 125.3(a)).

In the absence of ELGs, effluent limits can also be based upon Best Professional Judgment (BPJ). Accordingly, every individual member of a discharge class or category is required to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices. This means that TBELs based upon a BPJ determination are applied at end-of-pipe and mixing zones are not allowed (40 CFR 125.3(a)). Similarly, since the statutory deadlines best practicable technology (BPT), best available technology economically achievable (BAT) and best conventional control technology (BCT) have all passed; compliance schedules for these TBELs are also not allowed.

WQBELs are designed to be protective of the beneficial uses of the receiving water and are independent of the available treatment technology. The WQBELs for this facility are based on water quality criteria in 327 IAC 2-1.5-8 or under the procedures described in 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16 and implementation procedures in 327 IAC 5. Limitations and/or monitoring are required for parameters identified by applications of the reasonable potential to exceed WQBEL under 327 IAC 5-2-11.5.

According to 40 CFR 122.44 and 327 IAC 5, NPDES permit limits are based on either TBELs, where applicable, BPJ, or WQBELs, whichever is most stringent. The decision to limit or monitor the parameters contained in this permit is based on information contained in the permittee's NPDES application. In addition, when performing a permit renewal, existing permit limits must be considered. These may be TBELs, WQBELs, or limits based on BPJ. When renewing a permit, the antibacksliding provisions identified in 327 IAC 5-2-10(11) are taken into consideration.

5.1 Existing Permit Limits

Outfall 001

Parameter	Monthly Average	Daily Maximum	Units
Flow	Report	Report	MGD
Water Cannon Flow	Report	Report	MGD
TSS	Report	Report	mg/l & lbs/day
Oil and Grease	Report	Report	mg/l & lbs/day

Phenols (4AAP)	14 Report	22 Report	lbs/day mg/l
Copper	21 0.018	40 0.035	lbs/day mg/l
Mercury	0.0015 1.3	0.0037 3.2	lbs/day ng/l
Silver	0.055 0.048	0.11 0.097	lbs/day ug/l
Zinc	171 150	332 290	lbs/day ug/l
Total Residual Chlorine	11 10	23 20	lbs/day ug/l
Whole Effluent Toxicity	-------- --------	1.0 1.0	TU_a TU_c
Temperature	--------	Report[1]	°F
Ammonia, as N	[2]	[2]	mg/l & lbs/day

[1] Temperature limits are based on a 316(a) Alternate Thermal Effluent Limitations approval.

[2] Ammonia limits are based on 301(g) Variance approval. In lieu of Monthly Average Limitations, Weekly Average Limitations were used.

Parameter	Daily Minimum	Daily Maximum	Units
pH	6.0	9.0	Std Units

Outfall 002

Parameter	Monthly Average	Daily Maximum	Units
Flow	Report	Report	MGD
TSS	Report	Report	mg/l & lbs/day
Oil and Grease	Report	Report	mg/l & lbs/day
Ammonia, as N	Report	Report	mg/l & lbs/day
Phenols (4AAP)	Report	Report	mg/l & lbs/day
Dissolved Iron	Report	Report	mg/l & lbs/day
Zinc	Report	Report	mg/l & lbs/day
Lead	Report	Report	mg/l & lbs/day
Fluoride	Report	Report	mg/l & lbs/day
Total Residual Chlorine	24 10	48 20	lbs/day ug/l
Temperature	--------	Report[1]	°F

[1] Temperature limits are based on a 316(a) Alternate Thermal Effluent Limitations approval.

Parameter	Daily Minimum	Daily Maximum	Units
pH	6.0	9.0	Std Units

Outfall 003

Parameter	Monthly Average	Daily Maximum	Units
Flow	Report	Report	MGD
Total Residual Chlorine	10	20	ug/l

Internal Outfall 011

Parameter	Monthly Average	Daily Maximum	Units
Flow	Report	Report	MGD
TSS	6000 Report	20000 Report	lbs/day mg/l
Oil and Grease	---------- Report	6000 Report	lbs/day mg/l
Ammonia, as N	Report	Report	mg/l & lbs/day
Phenols (4AAP)	Report	Report	mg/l & lbs/day
Total Cyanide	Report Report	21 Report	lbs/day mg/l
Lead	21.0 Report	40.0 Report	lbs/day mg/l
Zinc	34.6 Report	99.7 Report	lbs/day mg/l
Total Residual Chlorine	Report Report	4.42 Report	lbs/day ug/l
Naphthalene[1]	Report Report	0.66 Report	lbs/day ug/l
Tetrachloroethylene[1]	Report Report	0.99 Report	lbs/day ug/l

[1] A monitoring waiver for Naphthalene and Tetrachloroethylene was granted.

Internal Outfall 111

Parameter	Monthly Average	Daily Maximum	Units
2,3,7,8-Tetrachlorodibenzofuran	---------	<ML	pg/l

5.2 Technology-Based Effluent Limits (TBEL)

The applicable technology based standards for the AMBH facility are contained in 40 CFR 420 – Iron and Steel Manufacturing Point Source Category. The following table provides a summary of the applicable regulations and the associated production levels.

Applicable ELG Subparts and Production Levels

Subpart	Description	Average Daily Production
Subpart B – Sintering Subcategory (40 CFR § 420.20)	Sintering operations conducted by the heating of iron bearing wastes together with fine iron ore, limestone, and coke fines in an ignition furnace to produce an agglomerate for charging to the blast furnace.	9,471 tons/day
Subpart C – Ironmaking Subcategory (40 CFR § 420.30)	Ironmaking operations in which iron ore is reduced to molten iron in a blast furnace.	14,796 tons/day
Subpart D – Steelmaking Subcategory (40 CFR § 420.40)	Steelmaking operations conducted in basic oxygen and electric arc furnaces.	17,127 tons/day
Subpart E – Vacuum Degassing Subcategory (40 CFR § 420.50)	Vacuum degassing operations conducted by applying a vacuum to molten steel.	16,730 tons/day
Subpart F – Continuous Casting Subcategory (40 CFR § 420.60)	The continuous casting of molten steel into intermediate or semi-finished steel products through water cooled molds.	18,018 tons/day
Subpart G – Hot Forming Subcategory (40 CFR § 420.70)	Hot forming operations conducted in primary, section, flat, and pipe and tube mills.	16,611 tons/day
Subpart I – Acid Pickling Subcategory (40 CFR § 420.90)	Sulfuric acid, hydrochloric acid, or combination acid pickling operations.	8,951 tons/day
Subpart J – Cold Forming Subcategory (40 CFR § 420.100)	Cold rolling and cold working pipe and tube operations in which unheated steel is passed through rolls or otherwise processed to reduce its thickness, to produce a smooth surface, or to develop controlled mechanical properties in the steel.	10,792 tons/day
Subpart K – Alkaline Cleaning Subcategory (40 CFR § 420.110)	Operations in which steel and steel products are immersed in alkaline cleaning baths to remove mineral and animal fats or oils from the steel, and those rinsing operations which follow such immersion.	3,236 tons/day

Subpart L – Hot Coating Subcategory (40 CFR § 420.120)	Operations in which steel is coated with zinc, terne metal, or other metals by the hot dip process, and those rinsing operations associated with that process.	1,844 tons/day

Cokemaking operations are regulated by 40 CFR 420 – Subpart A. However, because AMBH disposes its process wastewater from the cokemaking via deep well injection, these process wastewaters are not regulated in this permit. AMBH is not authorized to discharge cokemaking process wastewaters to surface waters of the State.

The following tables contain the applicable ELG subparts from the federal regulations and the calculated TBELs for each categorical wastestream, by parameter.

Total Suspended Solids					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	0.0250	474[1]	0.0751	1420
420.23 (BAT)		-------	---------	--------	--------
420.32(a) (BPT)	14,796 Tons/Day	0.0260	769	0.0782	2310
420.33(a) (BAT)		-------	---------	--------	--------
420.42(b) (BPT)	6,433 Tons/Day	0.0104	134	0.0312	401
420.43(b) (BAT)		-------	---------	--------	--------
420.42(c) (BPT)	10,694 Tons/Day	0.0229	490	0.0687	1470
420.43(c) (BAT)		-------	---------	--------	--------
420.52 (BPT)	16,730 Tons/Day	0.00521	174	0.0156	522
420.53 (BAT)		-------	---------	--------	--------
420.62 (BPT)	18,018 Tons/Day	0.0260	937	0.0780	2810
420.63 (BAT)		-------	---------	--------	--------
420.72(c)(1) (BPT)	12,268 Tons/Day	0.160	3930	0.427	10500
420.73 (BAT)		-------	---------	--------	--------
420.77(c)(1) (BCT)		0.160	3930	0.427	10500
420.72(c)(2) (BPT)	4,343 Tons/Day	0.0851	739	0.227	1970
420.73((BAT)		-------	---------	--------	--------
420.77(c)(2) (BCT)		0.0851	739	0.227	1970
420.92(b)(2) (BPT)	8,948 Tons/Day	0.0350	626	0.0818	1460
420.93(b)(2) (BAT)		-------	---------	--------	--------
420.92(b)(4) (BPT)	3 Scrubbers	2.45 Kg	16.3 [2]	5.72 Kg	38.1
420.93(b)(4) (BAT)		-------	---------	--------	--------
420.102(a)(2) (BPT)	7,667 Tons/Day	0.00313	48.0	0.00626	96.0
420.103(a)(2) (BAT)		-------	---------	--------	--------
420.102(a)(4) (BPT)	3,225 Tons/Day	0.0113	72.9	0.0225	145
420.103(a)(4) (BAT)		-------	---------	--------	--------
420.112(b) (BPT)	3,236 Tons/Day	0.0438	283	0.102	660
420.113 (BAT)		-------	---------	--------	--------
420.122(a)(1) (BPT)	1,843 Tons/Day	0.0751	277	0.175	645
420.123(a)(1) (BAT)		-------	---------	--------	--------
420.127(a)(1) (BCT)		0.0751	277	0.175	645

420.122(c) (BPT)	1 Scrubber	16.3 Kg	36.2	38.1	84.7
420.123(c) (BAT)		-------	---------	--------	--------
420.127(c) (BCT)		16.3 Kg	36.2	38.1	84.7
[redacted]					
Total TSS Limitation		9,006 lbs/day		24,530 lbs/day	

[1] Example calculation:

TSS – Monthly Average Limit = $9471\frac{tons}{day} \times 2000\frac{lb}{ton} x0.0250\frac{lb}{1000lb} = 474\frac{lb}{day}$

[2] Example calculation:

TSS – Monthly Average Limit = $2.45Kg \times \frac{lb}{0.45Kg} x3Scrubbers = 16.3\frac{lb}{day}$

Oil and Grease					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	0.00501	94.9	0.0150	284
420.23 (BAT)		-------	---------	--------	--------
420.62 (BPT)	18,018 Tons/Day	0.0078	281	0.0234	843
420.63 (BAT)		-------	---------	--------	--------
420.72(c)(1) (BPT)	12,268 Tons/Day	-------	---------	0.107	2625
420.73 (BAT)		-------	---------	--------	--------
420.77(c)(1) (BCT)		-------	---------	0.107	2625
420.72(c)(2) (BPT)	4,343 Tons/Day	-------	---------	0.0568	493
420.73((BAT)		-------	---------	--------	--------
420.77(c)(2) (BCT)		-------	---------	0.0568	493
420.92(b)(2) (BPT)	8,948 Tons/Day	0.0117	209	0.0350	626
420.93(b)(2) (BAT)		-------	---------	--------	--------
420.92(b)(4) (BPT)	3 Scrubbers	0.819 Kg	5.46	2.45 Kg	16.3
420.93(b)(4) (BAT)		-------	---------	--------	--------
420.102(a)(2) (BPT)	7,667 Tons/Day	0.00104	15.9	0.00261	40.0
420.103(a)(2) (BAT)		-------	---------	--------	--------
420.102(a)(4) (BPT)	3,225 Tons/Day	0.00376	24.3	0.00939	60.6
420.103(a)(4) (BAT)		-------	---------	--------	--------
420.112(b) (BPT)	3,236 Tons/Day	0.0146	94.5	0.0438	283
420.113 (BAT)		-------	---------	--------	--------
420.122(a)(1) (BPT)	1,843 Tons/Day	0.0250	92.2	0.0751	277
420.123(a)(1) (BAT)		-------	---------	--------	--------
420.127(a)(1) (BCT)		0.0250	92.2	0.0751	277
420.122(c) (BPT)	1 Scrubber	5.45 Kg	12.1	16.3	36.2
420.123(c) (BAT)		-------	---------	--------	--------
420.127(c) (BCT)		5.45 Kg	12.1	16.3	36.2
[redacted]					

Total O+G Limitation	829 lbs/day	5,584 lbs/day

Total Lead					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		0.000150	2.84	0.000451	8.54
420.32(a) (BPT)	14,796 Tons/Day	-------	---------	--------	--------
420.33(a) (BAT)		0.0000876	2.59	0.000263	7.78
420.42(b) (BPT)	6,433 Tons/Day	-------	---------	--------	--------
420.43(b) (BAT)		0.0000626	0.805	0.000188	2.42
420.42(c) (BPT)	10,694 Tons/Day	-------	---------	--------	--------
420.43(c) (BAT)		0.000138	2.95	0.000413	8.83
420.52 (BPT)	16,730 Tons/Day	-------	---------	--------	--------
420.53 (BAT)		0.0000313	1.05	0.0000939	3.14
420.62 (BPT)	18,018 Tons/Day	-------	---------	--------	--------
420.63 (BAT)		0.0000313	1.13	0.0000939	3.38
420.72(c)(1) (BPT)	12,268 Tons/Day	-------	---------	--------	--------
420.73 (BAT) *		0.000108	2.65	0.000325	7.97
420.77(c)(1) (BCT)		-------	---------	--------	--------
420.72(c)(2) (BPT)	4,343 Tons/Day	-------	---------	--------	--------
420.73((BAT) *		0.0000584	0.507	0.000175	1.52
420.77(c)(2) (BCT)		-------	---------	--------	--------
420.92(b)(2) (BPT)	8,948 Tons/Day	0.000175	3.13	0.000526	9.41
420.93(b)(2) (BAT)		0.000175	3.13	0.000526	9.41
420.92(b)(4) (BPT)	3 Scrubbers	0.0123	0.0820	0.0368	0.245
420.93(b)(4) (BAT)		0.0123	0.0820	0.0368	0.245
420.102(a)(2) (BPT)	7,667 Tons/Day	0.0000156	0.239	0.0000469	0.719
420.103(a)(2) (BAT)		0.0000156	0.239	0.0000469	0.719
420.102(a)(4) (BPT)	3,225 Tons/Day	0.0000563	0.363	0.000169	1.09
420.103(a)(4) (BAT)		0.0000563	0.363	0.000169	1.09
420.122(a)(1) (BPT)	1,843 Tons/Day	0.000376	1.39	0.00113	4.17
420.123(a)(1) (BAT)		0.000376	1.39	0.00113	4.17
420.127(a)(1) (BCT)		-------	---------	--------	--------
420.122(c) (BPT)	1 Scrubber	0.0819	0.182	0.245	0.544
420.123(c) (BAT)		0.0123	0.0273	0.0368	0.08
420.127(c) (BCT)		-------	---------	--------	--------
Total Lead Limitation		19.8 lbs/day		59.1 lbs/day	

***** IDEM has previously developed BPJ/BAT effluent limits for the Hot Forming subcategory using the 1982 EPA Development Document, Vol. IV, Page 345 (EPA 440/1-82/024; May 1982)

Total Zinc					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		0.000225	4.26	0.000676	12.8
420.32(a) (BPT)	14,796 Tons/Day	-------	---------	--------	--------
420.33(a) (BAT)		0.000131	3.88	0.000394	11.7
420.42(b) (BPT)	6,433 Tons/Day	-------	---------	--------	--------
420.43(b) (BAT)		0.0000939	1.21	0.000282	3.63
420.42(c) (BPT)	10,694 Tons/Day	-------	---------	--------	--------
420.43(c) (BAT)		0.000207	4.43	0.000620	13.3
420.52 (BPT)	16,730 Tons/Day	-------	---------	--------	--------
420.53 (BAT)		0.0000469	1.57	0.000141	4.72
420.62 (BPT)	18,018 Tons/Day	-------	---------	--------	--------
420.63 (BAT)		0.0000469	1.69	0.000141	5.08
420.72(c)(1) (BPT)	12,268 Tons/Day	-------	---------	--------	--------
420.73 (BAT) *****		0.000163	4.00	0.000488	12.0
420.77(c)(1) (BCT)		-------	---------	--------	--------
420.72(c)(2) (BPT)	4,343 Tons/Day	-------	---------	--------	--------
420.73((BAT) *****		0.0000876	0.761	0.000263	2.28
420.77(c)(2) (BCT)		-------	---------	--------	--------
420.92(b)(2) (BPT)	8,948 Tons/Day	0.000234	4.19	0.000701	12.5
420.93(b)(2) (BAT)		0.000234	4.19	0.000701	12.5
420.92(b)(4) (BPT)	3 Scrubbers	0.0164	0.109	0.0491	0.327
420.93(b)(4) (BAT)		0.0164	0.109	0.0491	0.327
420.102(a)(2) (BPT)	7,667 Tons/Day	0.0000104	0.159	0.0000313	0.480
420.103(a)(2) (BAT)		0.0000104	0.159	0.0000313	0.480
420.102(a)(4) (BPT)	3,225 Tons/Day	0.0000376	0.243	0.000113	0.729
420.103(a)(4) (BAT)		0.0000376	0.243	0.000113	0.729
420.122(a)(1) (BPT)	1,843 Tons/Day	0.000500	1.84	0.00150	5.53
420.123(a)(1) (BAT)		0.000500	1.84	0.00150	5.53
420.127(a)(1) (BCT)		-------	---------	--------	--------
420.122(c) (BPT)	1 Scrubber	0.109	0.242	0.327	0.727
420.123(c) (BAT)		0.0164	0.0364	0.0491	0.109
420.127(c) (BCT)		-------	---------	--------	--------
Total Zinc Limitation		28.4 lbs/day		85.2 lbs/day	

***** IDEM has previously developed BPJ/BAT effluent limits for the Hot Forming subcategory using the 1982 EPA Development Document, Vol. IV, Page 345 (EPA 440/1-82/024; May 1982)

Total Ammonia, as N					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation	**Subtotal** lbs/day	**Categorical Limitation**	**Subtotal** lbs/day

		lbs/1000lbs		lbs/1000lbs	
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		0.00501	94.9	0.0150	284
420.32(a) (BPT)	14,796 Tons/Day	0.0537	1590	0.161	4760
420.33(a) (BAT)		0.00292	86.4	0.00876	259
Total Ammonia, as N Limitation		181 lbs/day		543 lbs/day	

Total Cyanide					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		0.00150	28.4	0.00300	56.8
420.32(a) (BPT)	14,796 Tons/Day	0.00782	231	0.0234	692
420.33(a) (BAT)		0.000876	25.9	0.00175	51.8
Total Cyanide Limitation		54.3 lbs/day		109 lbs/day	

Total Phenols (4AAP)					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		0.0000501	0.949	0.000100	1.89
420.32(a) (BPT)	14,796 Tons/Day	0.00210	62.1	0.00626	185
420.33(a) (BAT)		0.0000292	0.864	0.0000584	1.73
Total Phenols Limitation		1.81 lbs/day		3.62 lbs/day	

Naphthalene					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.102(a)(2) (BPT)	7,667 Tons/Day	-------	---------	0.0000104	0.159
420.103(a)(2) (BAT)		-------	---------	0.0000104	0.159
420.102(a)(4) (BPT)	3,225 Tons/Day	-------	---------	0.0000376	0.243
420.103(a)(4) (BAT)		-------	--------	0.0000376	0.243

Total Naphthalene Limitation	----------	0.402 lbs/day

Tetrachloroethylene					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.102(a)(2) (BPT)	7,667 Tons/Day	-------	---------	0.0000156	0.239
420.103(a)(2) (BAT)		-------	---------	0.0000156	0.239
420.102(a)(4) (BPT)	3,225 Tons/Day	-------	---------	0.0000563	0.363
420.103(a)(4) (BAT)		-------	--------	0.0000563	0.363
Total Tetrachloroethylene Limitation		----------		0.602 lbs/day	

Hexavalent Chromium					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.122(a)(1) (BPT)	7,667 Tons/Day	Hexavalent Chromium solutions from the Hot Dip Galvanizing Line are not discharged.			
420.123(a)(1) (BAT)					
420.127(a)(1) (BCT)					
420.122(c) (BPT)	3,225 Tons/Day				
420.123(c) (BAT)					
420.127(c) (BCT)					
Total Hexavalent Chromium Limitation		NA		NA	

Total Residual Chlorine					
40 CFR	**Production**	**Monthly Average**		**Daily Maximum**	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.32(a) (BPT)	14,796 Tons/Day	--------	--------	---------	--------
420.33(a) (BAT)		--------	--------	0.000146	4.32
Total Residual Chlorine Limitation		----------		4.32 lbs/day	

2,3,7,8-Tetrachlorodibenzofuran

40 CFR	Production	Monthly Average		Daily Maximum	
		Categorical Limitation lbs/1000lbs	**Subtotal** lbs/day	**Categorical Limitation** lbs/1000lbs	**Subtotal** lbs/day
420.22 (BPT)	9,471 Tons/Day	-------	---------	--------	--------
420.23 (BAT)		-------	--------	<ML[1]	--------
[redacted]					
Total 2,3,7,8-TCDF Limitation		----------		<10 pg/l	

[1] The limitation is expressed as less than the Minimum Level (<ML). The term Minimum Level means the level at which the analytical system gives recognizable signals and an acceptable calibration point. For 2,3,7,8-TCDF, the minimum level is 10 pg/l per EPA Method 1613B for water and wastewater samples. The term pg/l means picograms per liter (ppt=1.0×10^{-12} grams per liter).

TBELs for the following pollutants are included in the permit:

-*Total Suspended Solids (TSS)*
The TBELs for TSS are mass based and are calculated as 9,006 lbs/day monthly average and 24,530 lbs/day daily maximum. These limitations will apply at Outfall 011.

-*Oil & Grease (O+G)*
The TBELs for O+G are mass based and are calculated as 829 lbs/day monthly average and 5,584 lbs/day daily maximum. The monthly average mass-based limit, when considered in relation to the effluent flow, has a concentration below the method detection limit for O+G. When individual samples are collected, and are identified as less than detect, permitted facilities use the method detection limit multiplied by the flow to determine the monthly average. In this instance, using the method detection limit multiplied by the flow would calculate a monthly average mass above the calculated TBEL. Therefore, the monthly average mass limitation is not included in this permit. The permittee is required to report daily maximum and monthly average concentrations. These requirements are included at Outfall 011.

-*Total Lead*
The TBELs for total lead are calculated to be 19.8 lbs/day monthly average and 59.1 lbs/day daily maximum. The monthly average mass-based limitation is more stringent than the respective water quality-based effluent limitation and will apply at Outfall 011. Conversely, the daily maximum technology-based limit is ***less*** stringent than the respective water quality-based effluent limitation. Therefore, the daily maximum water quality-based effluent limitation must be applied. This would normally apply at the final outfall (Outfall 001). However, during the last permit renewal, the permittee requested that the more stringent water quality-based effluent limitation be applied at Outfall 011 to reduce duplicative sampling, while

ensuring that water quality standards are met. In this regard, IDEM proposes applying the daily maximum water quality-based effluent limitation at Outfall 011.

-*Total Zinc*
The TBELs for total zinc are calculated to be 28.4 lbs/day monthly average and 85.2 lbs/day daily maximum. These are more stringent than the calculated TBELs in the previous permit. The TBELs calculated in this permit are based on current production values. These limitations will apply at Outfall 011.

-*Total Cyanide*
The TBELs for total cyanide are calculated to be 54.3 lbs/day monthly average and 109 lbs/day daily maximum. The previous permit included only a daily maximum mass-based limitation of 21 lbs/day. The facility has demonstrated compliance with that limitation. Therefore, the daily maximum limitation of 21 lbs/day will be carried over to this permit. A monthly average limitation will not be included at Outfall 011 because the newly calculated monthly average TBEL is less stringent than the daily maximum being applied in this permit.

-*Total Residual Chlorine (TRC)*
The TBEL for TRC only includes a daily maximum mass-based effluent limit of 4.32 lbs/day, based on current production rates. That limitation is included at Outfall 011.

-2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF)
The TBELs for 2,3,7,8-TCDF only contain a daily maximum limitation of less than "Minimum Level". EPA Method 1613B for water and wastewater samples has a minimum level of 10 pg/l. Therefore, the daily maximum limitation is <10 pg/l and shall apply at Outfall 111. However, the permittee may allow a bypass to occur if the Reclamation Services Building (RSB) treatment system would experience an unplanned outage due to an exceptional incident in which there is an unintentional incident due to factors beyond the reasonable control of the permittee when the sinter plant is operating. The 2,3,7,8 TCDF effluent limit of less than 10 pg/L would temporarily apply at Outfall 011 for the duration of such an RSB outage. The 2,3,7,8 TCDF would be monitored at a minimum of the frequency of one (1) time per day at both Outfall 011, and the untreated sinter plant effluent before mixing with any other waste streams until the RSB treatment system is placed back in service. A dedicated sampling point needs to be constructed between Outfall 011 and where initial mixing of other waste streams occur. The RSB will outage will qualify for an "authorized bypass" if it meets the requirements in Part II.B.2 of the Permit.

The facility has been granted a 301(g) variance from the Ammonia, as N and Total Phenols calculated TBELs. Therefore, the above calculated TBELs for these parameters are not included in this permit and the previously approved variance limitations are carried over in this permit. Please refer to Section 6.4 of this Fact Sheet for additional information.

In addition, the facility has previously been granted a monitoring waiver for Naphthalene and Tetrachloroethylene. The facility requested this waiver last permit renewal. The 2011

permit renewal required the facility to measure naphthalene and tetrachloroethylene for a period of one (1) year so that IDEM could determine whether or not either pollutant was discharged in measurable amounts, including any seasonal variation. A review of that data was performed and found no measureable amount was discharged. The monitoring waiver was granted in a Modified Permit dated October 25, 2012. Based on waste characterization data submitted with this permit renewal, IDEM grants a continuation of that monitoring waiver.

For Hexavalent Chromium, as identified in the table above, the permittee has indicated that no chromate solutions are discharged at this facility. In addition, the ELGs for the Hot Dip Galvanizing Line state that, “The limitations for hexavalent chromium shall be applicable only to galvanizing operations which discharge wastewater from the chromate rinse step”.

5.3 Water Quality-Based Effluent Limits

The water quality-based effluent limitations for this facility are based on water quality criteria in 327 IAC 2-1.5-8 or under the procedures described in 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16 and implementation procedures in 327 IAC 5. A review of the discharge flow data from the previous permit cycle found the average daily discharge volume to be 135 MGD. That flow was used in determining the mass-based limits for the parameters below.

Narrative Water Quality Based Limits
The narrative water quality contained under 327 IAC 2-1.5-8(b)(1) (A)-(E) have been included in this permit to ensure that the narrative water quality criteria are met.

Numeric Water Quality Based Limits
The numeric water quality criteria and values contained in this permit have been calculated using the tables of water quality criteria under 327 IAC 2-1.5-8(b) & (c).

-Flow
The permittee’s flow is to be monitored in accordance with 327 IAC 5-2-13(a)2.

-pH
Limitations for pH in the proposed permit are taken from 327 IAC 2-1.5-8(c)(2).

-Temperature
Temperature limitations at Outfalls 001 and 002 are based on a 316(a) variance request previously approved. The permittee is currently collecting information and data to modify that request. The current variance limitations are carried over into this permit. Please refer to Section 6.4 of this Fact Sheet for additional information.

-*Copper, Silver, Zinc, Mercury and TRC*
The above identified parameters have previously been identified as having a reasonable potential to exceed Indiana Water Quality Standards. Therefore, the previous permit established WQBELs for these parameters and included them at

Outfall 001. Those requirements are carried over to this permit. A review of the discharge flow data from the previous permit cycle found the average daily discharge volume to be 135 MGD. That flow was used in determining the mass-based limits for the parameters below. The applicable WQBELs are as follows:

Parameter	Monthly Average	Daily Maximum
Copper	0.018 mg/l (20 lbs/day)	0.035 mg/l (39 lbs/day)
Silver	0.048 ug/l (0.054 lbs/day)	0.097 ug/l (0.11 lbs/day)
Zinc	150 ug/l (169 lbs/day)	290 ug/l (326 lbs/day)
Mercury	1.3 ng/l (0.0015 lbs/day)	3.2 ng/l (0.0037 lbs/day)
TRC (001)	10 ug/l (11 lbs/day)	20 ug/l (23 lbs/day)
TRC (002)	10 ug/l (24 lbs/day)	20 ug/l (48 lbs/day)

TRC limitations are included at both Outfall 001 and Outfall 002. The mass-based limitation is calculated by multiplying the concentration based limit by the discharge flow (with the inclusion of a unit conversion factor). Therefore, the mass-based limitation is different for the outfalls. In addition, the daily maximum WQBEL for TRC is greater than or equal to the LOD (0.02 mg/l) but less than the LOQ (0.06) as specified below. Compliance with the daily maximum limit will be demonstrated if the observed effluent concentrations are less than the LOQ. Compliance with the daily maximum mass value will be demonstrated if the calculated mass value is less than 68 lbs/day at Outfall 001 and less than 111 lbs/day at Outfall 002.

The monthly average WQBEL for TRC is also less than the LOQ. Compliance with the monthly average limit will be demonstrated if the monthly average effluent level is less than or equal to the monthly average WQBEL. Daily effluent values that are less than the LOQ, used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

The daily maximum WQBEL for silver is less than the LOD (0.2 ug/l). Compliance with the daily maximum limit will be demonstrated if the observed effluent concentrations are less than the LOD. Effluent levels greater than or equal to the LOD but less than the LOQ (0.64 ug/l) are in compliance with the daily maximum WQBEL, except when confirmed by a sufficient number of analyses of multiple samples and use of appropriate statistical techniques. Compliance with the daily maximum mass value for silver will be demonstrated if the calculated mass value is less than 0.72 lbs/day.

The monthly average WQBEL for silver is also less than the LOQ. Compliance with the monthly average limit will be demonstrated if the monthly average effluent level is less than or equal to the monthly average WQBEL. Daily effluent values that are less than the LOQ, used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

Mercury analytical and sampling methodology included in the permit provide for limits of detection and quantification at levels below the water quality criterion, and IDEM is requiring the permittee to utilize these methodologies. The NPDES permit requires that mercury sampling be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit.

-*TSS, O+G, Ammonia, Phenols, Dissolved Iron, Zinc, Lead, and Fluoride*
Reporting requirements for the above identified parameters are included at Outfall 002. During the 2011 permit renewal, a Reasonable Potential to Exceed (RPE) analysis was performed for these parameters. The parameters did not exhibit an RPE at that time. Reporting requirements were retained in the renewal, however, to detect any possible contamination of the noncontact cooling water with process wastewater. If a substance is present at elevated levels in the noncontact cooling water waste stream due to improper operation or maintenance of the cooling system, and this substance is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a numeric criterion, WQBELs shall be established for that substance. A review of the data during the last permit cycle indicates that the above parameters continue to be discharged at levels that do not exhibit an RPE. The monitoring requirements are carried over into this permit renewal to detect any potential contamination of the cooling water.

-Free Cyanide
Based on a review of the data submitted by the permittee as part of the renewal application, the data indicates that a reasonable potential to exceed Indiana water quality standards exists. Therefore, final effluent limitations are included in this permit. The limitations, established in a Waste Load Allocation (WLA) report dated December 21, 2015, for free cyanide are 8.8 ug/l (9.9 lbs/day) daily maximum and 4.4 ug/l (5.0 lbs/day) monthly average. The WLA is included as Attachment A of this Fact Sheet.

The facility utilizes a water cannon, on an as needed basis, to aid in the treatment for effluent temperature. The water cannon pumps raw Lake Michigan water and is sprayed over and into the discharge canal prior to Outfall 001. The use of the water cannon in this manner has been previously approved. However, the facility must demonstrate that the use of water cannon is not aiding in the treatment of the other parameters at Outfall 001. To do so, the facility must report the water cannon flow, and calculate new concentration and mass-based limitations by using the following calculation:

$$C_{001C} = (C_{001M} * Q_{001})/(Q_{001} - Q_{WC}); \text{ and}$$
$$M_{001C} = C_{001M} * Q_{001} * 8.345$$

where,

C_{001C} = Pollutant concentration at Outfall 001 to determine compliance with the NPDES permit concentration effluent limit.

M_{001C} = Pollutant mass at Outfall 001 to determine compliance with the NPDES permit mass effluent limit.

C_{001M} = Measured pollutant concentration at Outfall 001, (mg/L)
Q_{001} = Flow measured at Outfall 001, (million gallons)
Q_{WC} = Total flow measured at water cannon, (million gallons)

When the water cannon is not in use, the permittee must meet the water quality concentration and mass-based effluent limitations as identified in the Discharge Limitation Table at Outfall 001 for each pollutant.

5.4 Whole Effluent Toxicity Testing (WETT)

Per 327 IAC 5-2-11.5(c)(2), the commissioner may include, in the NPDES permit, WETT requirements to generate the data needed to adequately characterized the toxicity of the effluent to aquatic life.

In accordance with 327 IAC 2-1.5-8, at all times the discharge from any and all point sources specified within this permit shall not cause receiving waters including the mixing zone, to contain substances, materials, floating debris, oil, scum, or other pollutants: 1) which are in amounts sufficient to be acutely toxic to or to otherwise severely injure or kill aquatic life, other animals, plants, or humans; and 2) outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

A discharge shall not cause acute toxicity, as measured by whole effluent toxicity tests (WETT), at any point in the waterbody. To assure protection of aquatic life, a discharge shall not cause chronic toxicity, as measured by whole effluent toxicity tests, outside of the applicable mixing zone.

Therefore, the permittee is required to conduct WETT to determine the toxicity of the final effluent. This does not preclude the requirement to submit WTA application(s) and/or worksheet(s) for the replacement or new additives/chemicals proposed for use at the site.

5.5 Antibacksliding

Pursuant to 327 IAC 5-2-10(11) a permit may not be renewed, reissued or modified which contain effluent limitations that are less stringent than the comparable effluent limitation in the previous permit. None of the limits included in this permit conflict with antibacksliding regulations found in 327 IAC 5-2-10(11), therefore, backsliding is not an issue.

5.6 Antidegradation

327 IAC 2-1.3 outlines the state's Antidegradation Standards and Implementation procedures. The Tier 1 antidegradation standard found in 327 IAC 2-1.3-3(a) applies to all surface waters of the state regardless of their existing water quality. Based on this standard, for all surface waters of the state, the existing uses and level of water quality necessary to protect those existing uses shall be maintained and protected. IDEM implements the Tier 1 antidegradation standard by requiring NPDES permits to contain

effluent limits and best management practices (BMPs) for regulated pollutants that ensure the narrative and numeric water quality criteria applicable to each of the designated uses are achieved in the water and any designated uses of the downstream water are maintained and protected. Effluent limits for the following regulated pollutants are being included in this NPDES permit to satisfy the Tier 1 antidegradation standard: phenols, copper, mercury, silver, zinc, TRC, ammonia, total cyanide, and lead.

The Tier 2 antidegradation standard found in 327 IAC 2-1.3-3(b) applies to surface waters of the state where the existing quality for a parameter is better than the water quality criterion for that parameter established in 327 IAC 2-1-6 or 327 IAC 2-1.5. These surface waters are considered high quality for the parameter and this high quality shall be maintained and protected unless the commissioner finds that allowing a significant lowering of water quality is necessary and accommodates important social or economic development in the area in which the waters are located. IDEM implements the Tier 2 antidegradation standard for regulated pollutants with numeric water quality criteria quality adopted in or developed pursuant to 327 IAC 2-1-6 or 327 IAC 2-1.5 and utilizes the antidegradation implementation procedures in 327 IAC 2-1.3-5 and 2-1.3-6. According to 327 IAC 2-1.3-1(b), the antidegradation implementation procedures in 327 IAC 2-1.3-5 and 2-1.3-6 apply to a proposed new or increased loading of a regulated pollutant to surface waters of the state from a deliberate activity subject to the Clean Water Act (CWA), including a change in process or operation that will result in a significant lowering of water quality.

The NPDES permit does not propose to establish a new or increased loading of a regulated pollutant; therefore, the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 do not apply to the permitted discharge.

The permittee is prohibited from undertaking any deliberate action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality, or an antidegradation demonstration submitted and approved in accordance 327 IAC 2-1.3.

5.7 Storm Water

According to 40 CFR 122.26(b)(14)(ii) and 327 IAC 5-4-6(b)(1) facilities classified under Industrial Classification (SIC) Code 3312 – Integrated Steel Mill, are considered to be engaging in “industrial activity” for purposes of 40 CFR 122.26(b). Therefore, the permittee is required to have all storm water discharges associated with industrial activity permitted. Treatment for storm water discharges associated with industrial activities is required to meet, at a minimum, best available technology economically achievable/best conventional pollutant control technology (BAT/BCT) requirements. EPA has determined that non-numeric technology-based effluent limits have been determined to be equal to the best practicable technology (BPT) or BAT/BCT for storm water associated with industrial activity.

Storm water associated with industrial activity must be assessed to determine compliance with all water quality standards. The non-numeric storm water conditions and effluent limits contain the technology-based effluent limitations. Effluent limitations, as defined in the CWA, are restrictions on quantities, rates, and concentrations of constituents which are discharged. Effective implementation of these requirements should meet the applicable water quality based effluent limitations. Violation of any of these effluent limitations constitutes a violation of the permit.

Additionally, IDEM has determined that with the appropriate implementation of the required control measures and Best Management Practices (BMPs) found in Part I.D. of the permit, the discharge of storm water associated with industrial activity from this facility will meet applicable water quality standards and will not cause a significant lowering of water quality. Therefore, the storm water discharge is in compliance with Antidegradation Standards and Implementation Procedures found in 327 IAC 2-1.3 and an Antidegradation Demonstration is not required.

The TBELs require the permittee to minimize exposure of raw, final, or waste materials to rain, snow, snowmelt, and runoff. In doing so, the permittee is required, to the extent technologically available and economically achievable, to either locate industrial materials and activities inside or to protect them with storm resistant coverings. In addition, the permittee is required to: (1) use good housekeeping practices to keep exposed areas clean, (2) regularly inspect, test, maintain and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharges, (3) minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur, (4) stabilize exposed area and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants, (5) divert, infiltrate, reuse, contain or otherwise reduce storm water runoff, to minimize pollutants in the permitted facility discharges, (6) enclose or cover storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces, (7) train all employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team, (8) ensure that waste, garbage and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged, and (9) minimize generation of dust and off-site tracking of raw, final or waste materials.

To meet the non-numeric effluent limitations in Part I.D.4, the permit requires the facility to select control measures (including BMPs) to address the selection and design considerations in Part I.D.3.

The permittee must control its discharge as necessary to meet applicable water quality standards. It is expected that compliance with the non-numeric effluent limitations and other terms and conditions in this permit will meet this effluent limitation. However, if at any time the permittee, or IDEM, determines that the discharge causes or contributes to an

exceedance of applicable water quality standards, the permittee must take corrective actions, and conduct follow-up monitoring.

"Terms and Conditions" to Provide Information in a Storm Water Pollution Prevention Plan (SWPPP)

Distinct from the effluent limitation provisions in the permit, the permit requires the discharger to prepare a SWPPP for the permitted facility. The SWPPP is intended to document the selection, design, installation, and implementation (including inspection, maintenance, monitoring, and corrective action) of control measures being used to comply with the effluent limits set forth in Part I.D. of the permit. In general, the SWPPP must be kept up-to-date, and modified when necessary, to reflect any changes in control measures that were found to be necessary to meet the effluent limitations in the permit.

The requirement to prepare a SWPPP is not an effluent limitation, rather it documents what practices the discharger is implementing to meet the effluent limitations in Part I.D. of the permit. The SWPPP is not an effluent limitation because it does not restrict quantities, rates, and concentrations of constituents which are discharged. Instead, the requirement to develop a SWPPP is a permit "term or condition" authorized under sections 402(a)(2) and 308 of the Act. Section 402(a)(2) states, "[t]he Administrator shall prescribe conditions for [NPDES] permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate." The SWPPP requirements set forth in this permit are terms or conditions under the CWA because the discharger is documenting information on how it intends to comply with the effluent limitations (and inspection and evaluation requirements) contained elsewhere in the permit. Thus, the requirement to develop a SWPPP and keep it up-to-date is no different than other information collection conditions, as authorized by section 402(a)(2).

It should be noted that EPA has developed a guidance document, "Developing your Storm Water Pollution Prevention Plan – A guide for Industrial Operators (EPA 833-B09-002), February 2009, to assist facilities in developing a SWPPP. The guidance contains worksheets, checklists, and model forms that should assist a facility in developing a SWPPP.

Public availability of documents

Part I.E.2.d(2) of the permit requires that the permittee retain a copy of the current SWPPP at the facility and it must be immediately available, at the time of an onsite inspection or upon request, to IDEM. Additionally, interested persons can request a copy of the SWPPP through IDEM. By requiring members of the public to request a copy of the SWPPP through IDEM, the Agency is able to provide the permittees with assurance that any Confidential Business Information contained within the permitted facility's SWPPP is not released to the public.

5.8 Water Treatment Additives

In the event that changes are to be made in the use of water treatment additives that could significantly change the nature of, or increase the discharge concentration of any of the additives contributing to Outfalls 001 and 002, the permittee shall notify the IDEM as required in Part II.C.1 of the permit. The use of any new or changed water treatment additives/chemicals or dosage rates shall not cause the discharge from any permitted outfall to exhibit chronic or acute toxicity. Acute and chronic aquatic toxicity information must be provided with any notification regarding any new or changed water treatment additives or dosage rates. The following is a list of water treatment additives currently approved for use at the facility:

#1 Caster Machine
Nalco 3DT179 – Corrosion Inhibitor; Nalco 3DT190 – Scale Inhibitor; Nalco 3DT185 – Corrosion Inhibitor; Bleach – Microbiological Control; Nalco CB70 – Microbiological Control

#1Caster Spray
Nalco 3DT179 – Corrosion Inhibitor; Nalco 3DT190 – Scale Inhibitor; Nalco 3DT185 – Corrosion Inhibitor; Bleach – Microbiological Control; Nalco CB70 – Microbiological Control; Nalco ST-70 – Microbiological Control; Nalco 8103Plus – Filter aid; Nalco 8735 – Alkalinity Control

#1 Caster Mold
Nalco 8338 – Corrosion and Scale Control; Nalco TRAC113 – Corrosion and Scale Control; Nalco ST70 – Microbiological Control; Nalco 7320 – Microbiological Control; Nalco 7330 – Microbiological Control

#2 Caster Mold Evaporative Cooling Tower
Nalco 3DT179 – Corrosion Inhibitor; Nalco 3DT190 – Scale Inhibitor; Nalco 3DT185 – Corrosion Inhibitor; Bleach – Microbiological Control; Nalco CB70 – Microbiological Control

#2Caster Spray
Nalco 3DT179 – Corrosion Inhibitor; Nalco 3DT190 – Scale Inhibitor; Nalco 3DT185 – Corrosion Inhibitor; Bleach – Microbiological Control; Nalco CB70 – Microbiological Control; Nalco ST-70 – Microbiological Control; Nalco 8103Plus – Filter aid; Nalco 8735 – Alkalinity Control

#2 Caster Emergency Tower
Nalco ST70 – Microbiological Control

#2 Caster Mold
Nalco 8338 – Corrosion and Scale Control; Nalco TRAC113 – Corrosion and Scale Control; Nalco ST70 – Microbiological Control; Nalco 7320 – Microbiological Control; Nalco 7330 – Microbiological Control

Power Station
Nalco Nexgaurd 22300 – Internal Boiler Treatment; Nalco 750 – Boiler Antifoam; Nalco 1805 – Neutralizing Amine; Nalco 1720 – Oxygen Scavenger; Nalco 2 – Anionic

Coagulant; Nalco Nalclear7763 – Anionic Flocculant; Nalco BLR3715 – Lime Slurry Treatment; Nalco 8940 – Acidic Cleaner; Solar Salt – Regeneration; Dolomitic Lime – Precipitation

Continuous Heat Treat Line
Nalco 3DT288 – Corrosion and Scale Control; Nalco 7346 – Microbiological Control

Hot Dip Coating Line
Nalco 3DT288 – Corrosion and Scale Control; Nalco 7346 – Microbiological Control; Nalco 8338 - Corrosion and Scale Control; Nalco 7320 – Microbiological Control; Nalco 41 – Corrosion Inhibition

Coke Plant
Nalco 7709 – Dispersant; Nalco 8131 – Emulsion Breaker, Ferric Chloride; Nalco 7719 – Emulsion Breaker; Nalco 8735 – pH/alkalinity control; Nalco 9961 – Emulsion Breaker

Blast Furnaces
Nalco 71305 – Flocculant; Nalco 8316 – H2S Scavenger; Nalco 8357 – Dispersant; Magnesium Hydroxide – pH/alkalinity control

Sinter Plant
Nalco 5200M – Scale Inhibitor; Nalco 1392 – Scale Inhibitor

Main Office
Nalco 8338 – Corrosion and Scale Control; Nalco 3DT288 – Corrosion and Scale Control; Nalco 7320 – Microbiological Control; Waste Ammonia Liquor Pump Station; Nalco 71305 – Cationic Flocculant; Nalco 8187 - Cationic Coagulant; Nalco 7320 – Microbiological Control

Oil Separation
Nalco 7680 – Retention Aid/Coagulant; Nalco 7308 –Oil and Grease Dispersant

Reclamation Services Building
Nalco 7763 – Anionic Coagulant; Nalco 8100 – Cationic Coagulant; Magnesium Hydroxide – pH Control

Secondary Waste Treatment Plant
Nalco 7763 – Anionic Coagulant; Nalco 8157 – Cationic Coagulant; Nalco 71301 – Cationic Flocculant; Nalco 71325 – Anionic Flocculant; Nalco 7192 – Cationic Emulsion Breaker; Nalco 7341 – Microbiological Control

BOF
Nalco 7763 – Anionic Coagulant; Nalco 1392 – Scale Inhibitor; Nalco 7385 – Scale Inhibitor; Nalco 8338 – Corrosion and Scale Inhibitor; CO2 – pH Control; Nalco 8357 – Dispersant; Nalco 22359 – Internal Boiler Treatment; Nalco 22300 – Internal Boiler Treatment

Vacuum Degasser

1392 – Scale Inhibitor

Plant
Bleach – Zebra Muscle Control; Nalco 7408 - Sodium Bisulfite Chlorine Scavenger

6.0 PERMIT DRAFT DISCUSSION

6.1 Discharge Limitations

The proposed final effluent limitations are based on the more stringent of the Indiana WQBELs, TBELS, or approved TMDLs and NPDES regulations as appropriate for each regulated outfall. Sections 5.2 and 5.3 of this document explain the rationale for the effluent limitations at each Outfall.

IAC=Indiana Administrative Code; **BPJ**=Best Professional Judgment; **PP**=Previous Permit; **WQBEL**=Water Quality-Based Effluent Limit; **TBEL**=Technology-Based Effluent Limit; **301(g)**=Proposed Modified Effluent Limit; **316(a)**=Alternate Thermal Effluent Limit

Outfall 001:

Parameter	Monthly Average	Daily Maximum	Units	Source of Limitation
Flow	Report	Report	MGD	IAC
Water Cannon Flow	Report	Report	MGD	BPJ/PP
TSS	Report	Report	mg/l & lbs/day	BPJ/PP
Oil and Grease	Report	Report	mg/l & lbs/day	BPJ/PP
Phenols (4AAP)	14 Report	22 Report	lbs/day mg/l	301(g)
Copper	20 0.018	39 0.035	lbs/day mg/l	WQBEL
Mercury	0.0015 1.3	0.0037 3.2	lbs/day ng/l	WQBEL
Silver	0.054 0.048	0.11 0.097	lbs/day ug/l	WQBEL
Zinc	169 150	326 290	lbs/day ug/l	WQBEL
Total Residual Chlorine	11 10	23 20	lbs/day ug/l	WQBEL
Free Cyanide	5.0 4.4	9.9 8.8	lbs/day ug/l	WQBEL
Whole Effluent Toxicity	-------- --------	1.0 1.0	TU_a TU_c	WQBEL
Temperature	--------	Report[1]	°F	316(a)
Ammonia, as N	[2]	[2]	mg/l & lbs/day	301(g)

Parameter	Daily Minimum	Daily Maximum	Units	Source of Limitation

pH	6.0	9.0	Std Units	WQBEL

[1] Temperature limitations vary seasonally and are based on an approved 316(a) variance for alternate thermal effluent limits. The limits are:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°F	60	60	65	71	81	86	86	86	85	80	75	65

[2] Ammonia, as N, limitations vary seasonally and are based on an approved 301(g) Proposed Modified Effluent Limits. The limitations are:

Ammonia, as N	Weekly Average	Daily Maximum	Units
January	720 0.68	915 0.86	lbs/day mg/l
February	645 0.72	910 1.02	lbs/day mg/l
March	940 0.9	1300 1.27	lbs/day mg/l
April	730 0.82	1030 1.16	lbs/day mg/l
May	680 0.74	970 1.05	lbs/day mg/l
June	650 0.62	920 0.87	lbs/day mg/l
July	375 0.36	540 0.51	lbs/day mg/l
August	385 0.37	540 0.51	lbs/day mg/l
September	550 0.82	775 1.16	lbs/day mg/l
October	635 0.67	900 0.95	lbs/day mg/l
November	530 0.47	680 0.6	lbs/day mg/l
December	635 0.9	900 1.27	lbs/day mg/l

Outfall 011:

Parameter	Monthly Average	Daily Maximum	Units	Source of Limitation
Flow	Report	Report	MGD	IAC
TSS	9006 Report	24530 Report	lbs/day mg/l	TBEL
Oil and Grease	---------- Report	5584 Report	lbs/day mg/l	TBEL
Ammonia, as N	Report	Report	mg/l & lbs/day	BPJ/PP
Phenols (4AAP)	Report	Report	mg/l & lbs/day	BPJ/PP
Total Cyanide	Report	21	lbs/day	PP

	Report	Report	mg/l	
Lead	19.8 Report	40.0 Report	lbs/day mg/l	TBEL/WQBEL
Zinc	28.4 Report	85.2 Report	lbs/day mg/l	TBEL
Total Residual Chlorine	Report Report	4.32[1] Report	lbs/day ug/l	TBEL
Naphthalene	Report Report	0.402 Report	lbs/day ug/l	TBEL
Tetrachloroethylene	Report Report	0.602 Report	lbs/day ug/l	TBEL

[1] The daily maximum mass limit for TRC limit is applicable when the sintering process water is chlorinated, or if the alkaline chlorination wastewater treatment system is being used. Compliance with the daily maximum limit of 4.32 lbs/day will be demonstrated if the observed effluent concentrations are less than the LOQ given below. The permittee shall report the daily maximum and monthly average concentration for TRC based on a 3 x Weekly measurement frequency.

Internal Outfall 111:

Parameter	Monthly Average	Daily Maximum	Units	Source of Limitation
2,3,7,8-Tetrachlorodibenzofuran	---------	<ML[1]	pg/l	TBEL

[1] The Minimum Level (ML) is 10 picograms per liter (pg/l) per EPA Method 1613B. The permittee may allow a bypass to occur if the Reclamation Services Building (RSB) treatment system would experience an unplanned outage due to an exceptional incident in which there is an unintentional incident due to factors beyond the reasonable control of the permittee when the sinter plant is operating. The 2,3,7,8 TCDF effluent limit of <10 pg/l would temporarily apply at Outfall 011 for the duration of such an RSB outage.

Outfall 002:

Parameter	Monthly Average	Daily Maximum	Units	Source of Limitation
Flow	Report	Report	MGD	IAC
TSS	Report	Report	mg/l & lbs/day	BPJ/PP
Oil and Grease	Report	Report	mg/l & lbs/day	BPJ/PP
Ammonia, as N	Report	Report	mg/l & lbs/day	BPJ/PP
Phenols (4AAP)	Report	Report	mg/l & lbs/day	BPJ/PP
Dissolved Iron	Report	Report	mg/l & lbs/day	BPJ/PP
Zinc	Report	Report	mg/l & lbs/day	BPJ/PP
Lead	Report	Report	mg/l & lbs/day	BPJ/PP
Fluoride	Report	Report	mg/l & lbs/day	BPJ/PP
Total Residual	24	48	lbs/day	WQBEL

Chlorine	10	20	ug/l	
Temperature	--------	Report[1]	°F	316(a)

Parameter	Daily Minimum	Daily Maximum	Units	Source of Limitation
pH	6.0	9.0	Std Units	WQBEL

[1] Temperature limitations are based on an approved 316(a) variance for alternate thermal effluent limits. The limits are:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°F	55	57	63	69	77	82	88	90	88	81	72	63

Outfall 003:

Parameter	Monthly Average	Daily Maximum	Units	Source of Limitation
Flow	Report	Report	MGD	IAC
Total Residual Chlorine	10	20	ug/l	WQBEL

6.2 Monitoring Conditions and Rationale

Analytical and sampling methods used shall conform to the version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1).

Outfall 001

Parameter	Minimum Frequency	Sample Type
Flow	Continuous	24 Hr. Total
Water Cannon Flow	Continuous	24Hr. Total
TSS	1 X Weekly	24 Hr. Comp.
Oil and Grease	1 X Weekly	Grab
Phenols (4AAP)	1 X Weekly	24 Hr. Comp.
Copper	2 X Monthly	24 Hr. Comp.
Mercury	6 X Year	Grab
Silver	2 X Monthly	24 Hr. Comp.
Zinc	2 X Monthly	24 Hr. Comp.
Free Cyanide	2 X Monthly	24 Hr. Comp.
Total Residual Chlorine	1 X Daily[1]	Grab
Whole Effluent Toxicity	See Part I.F of the Permit	
Temperature	Continuous[2]	Probe
Ammonia, as N	3 X Week	24 Hr. Comp.
pH	Continuous[3]	Probe

[1] Monitoring for TRC shall be 1 X Daily during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.
[2] The highest temperature sustained over any two hour period within each day's 24 hour monitoring period shall not exceed the temperatures listed for the respective month.

[3] The total time during which the pH values are outside the required range of pH values in the limitation table shall not exceed seven (7) hours and twenty-six (26) minutes in any calendar month. No individual excursion from the range of permitted pH values shall exceed sixty minutes in duration or 0.5 s.u. in magnitude.

Outfall 011:

Parameter	Minimum Frequency	Sample Type
Flow	Continuous	24 Hr. Total
TSS	3 X Weekly	24 Hr. Comp.
Oil and Grease	3 X Weekly	Grab
Ammonia, as N	3 X Weekly	24 Hr. Comp.
Phenols (4AAP)	1 X Weekly	24 Hr. Comp.
Total Cyanide	1 X Weekly	24 Hr. Comp.
Lead	3 X Weekly	24 Hr. Comp.
Zinc	3 X Weekly	24 Hr. Comp.
Total Residual Chlorine	3 X Weekly	24 Hr. Comp.
Naphthalene	[1]	Grab
Tetrachloroethylene	[1]	Grab

[1] A monitoring waiver per 40 CFR 122.44 has been granted for Naphthalene and Tetrachloroethylene for the term of this permit. IDEM shall be notified if any changes occur at this facility that would require IDEM to review the conditions required to grant this waiver.

Internal Outfall 111:

Parameter	Minimum Frequency	Sample Type
2,3,7,8-Tetrachlorodibenzofuran	1 X Monthly[1]	Grab

[1] During periods of Reclamation Services Building (RSB) treatment system outage, the permittee shall monitor 2,3,7,8-TCDF at a minimum frequency of one (1) time per day at both Outfall 011 and the untreated sinter plant effluent before mixing with any other waste streams until the RSB treatment system is placed back in service.

Outfall 002:

Parameter	Minimum Frequency	Sample Type
Flow	Continuous	24 Hr. Total
TSS	1 X Weekly	24 Hr. Comp.
Oil and Grease	1 X Weekly	Grab
Ammonia, as N	1 X Monthly[1]	24 Hr. Comp.
Phenols (4AAP)	1 X Monthly[1]	Grab
Dissolved Iron	1 X Monthly[1]	Grab
Zinc	1 X Monthly[1]	Grab
Lead	1 X Monthly[1]	24 Hr. Comp.
Fluoride	1 X Monthly[1]	24 Hr. Comp.
Total Residual Chlorine	1 X Daily[2]	Grab
Temperature	Continuous[3]	Probe
pH	Continuous[4]	Probe

[1] Monitoring for these parameters shall be 1 x Monthly when treated process wastewater from the lagoon re-circulating pump station is directed to Outfall 002 and occur on the same day of discharge via Outfall 002.

[2] Monitoring for TRC shall be 1 X Daily during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

[3] The highest temperature sustained over any two hour period within each day's 24 hour monitoring period shall not exceed the temperatures listed for the respective month.

[4] The total time during which the pH values are outside the required range of pH values in the limitation table shall not exceed seven (7) hours and twenty-six (26) minutes in any calendar month. No individual excursion from the range of permitted pH values shall exceed sixty minutes in duration or 0.5 s.u. in magnitude.

Outfall 003

Parameter	Minimum Frequency	Sample Type
Total Residual Chlorine	1 X Daily[1]	Grab

[1] Monitoring for TRC shall be 1 X Daily during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

6.3 Schedule of Compliance

The circumstances in this NPDES permit do not qualify for a schedule of compliance.

6.4 Special Conditions and Other Permit Requirements

This NPDES permit contains special provisions for 316(a) Alternative Thermal Effluent Limitations, 316(b) Cooling Water Intake Structures, 301(g) Proposed Modified Effluent Limits for ammonia and phenols, and Polychlorinated Biphenyl prohibition. The conditions are outlined below.

6.4.1 Clean Water Act (CWA) Section 316(a) Alternative Thermal Effluent Limitations

A. General

Applicability, Purpose and Scope

The regulations applicable to dischargers requesting alternative thermal effluent limitations (ATEL) as allowed by section 316(a) of the Clean Water Act (CWA) are found in 40 CFR 125 subpart H and 327 IAC 5-7. 40 CFR 125 subpart H and 327 IAC 5-7 describe the factors, criteria and standards for the establishment of alternative thermal effluent limitations under section 316(a) of the Act in permits issued under section 402(a) of the Act.

With respect to any point source, otherwise subject to the provisions of section 301 or section 306 of this Act, whenever the owner or operator of any such source, after opportunity for public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation proposed for the control of the thermal component of any discharge from such source will require effluent limitations more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made, the Administrator (or, the authorized State) may impose an effluent limitation under such sections on such plant, with respect to the thermal component of such discharge (taking into account the interaction of such thermal component with other pollutants), that will ensure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on that body of water.

In making the demonstration the discharger shall consider Guidance for Conducting a Demonstration as a Requirement of a 316(a) Alternative Thermal Effluent Limitation in making such demonstrations.

At the expiration of the permit, any Permittee/discharger holding a section 316(a) variance should be prepared to support the continuation of the variance with studies based on the discharger's actual operation experience.

Criteria and standards for the determination of ATELs

Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the IDEM that such effluent limitations are more

stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made. This demonstration must show that the alternative effluent limitation desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, will ensure the protection and propagation of a balanced indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made.

Existing dischargers may base their demonstration upon the absence of prior appreciable harm in lieu of predictive studies in accordance with 327 IAC 5-7-5(c)(1). Any such demonstrations shall show: (i) That no appreciable harm has resulted from the normal component of the discharge (taking into account the interaction of such thermal component with other pollutants and the additive effect of other thermal sources to a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge has been made; or (ii) That despite the occurrence of such previous harm, the desired alternative effluent limitations (or appropriate modifications thereof) will nevertheless ensure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made. In determining whether or not prior appreciable harm has occurred, the IDEM shall consider the length of time in which the applicant has been discharging and the nature of the discharge.

The 316(a) ATEL Application Process[1]

In accordance with 327 IAC 5-7 and Subpart H of 40 CFR 125, the IDEM is requiring the Permittee to submit an updated CWA section 316(a) demonstration for alternate thermal effluent limitations and/or mixing zone prior to the next permit renewal application.

a. The discharger applying for ATEL submits a proposed Type I, II, or III Demonstration study plan to IDEM for review of completeness. The demonstration study plan must include a list of the proposed RIS for IDEM to review.

b. IDEM may at its discretion request additional information from the discharger to make the study plan complete. When the study plan is complete and satisfies the requirements of the guidance, IDEM will inform the discharger in writing that the Demonstration Study Plan is complete so that the discharger may begin the study. IDEM will also provide the discharger with the accepted RIS.

c. The discharger initiates the Demonstration Study Plan within the next two (2) years.

d. The discharger submits the completed Type I, II, or III Demonstration and application for ATEL to IDEM. The application must be signed by a certifying official in compliance with 40 CFR 122.22 (or comparable state regulation). The

[1] IDEM recognizes that the scope of the Application Process may be less when requesting renewal of an ATEL.

demonstration and application for ATEL will be reviewed by IDEM for completeness. The demonstration and application typically are submitted with the NPDES permit application. A complete demonstration consists of the following:

1. A quantitative description and rationale for the proposed ATEL,
2. The Absence of Prior Appreciable Harm assessment or RIS assessment supporting the proposed ATEL
3. All of the thermal and biological data collected during the Demonstration in its most detailed form, provided in Microsoft Excel® or Microsoft Access® format. Summarized data and data compilations alone will NOT be accepted,
4. Executive Summary of Study Findings,
5. Request for Thermal Mixing Zone. The Thermal Mixing Zone request must specify the temperature within and at the edge of the Zone of Initial Dilution (ZID), the temperature at the edge of the mixing zone (the point at which the temperature stabilizes) and the proposed sizes of the mixing zones as applicable,
6. Any other information deemed necessary and developed by the discharger for the demonstration.
7. A delineation/model of the thermal plume under representative flow conditions based on in-stream temperature monitoring data, and with the proposed point of compliance for the proposed thermal limits, and
8. Any additional studies conducted since the last Demonstration was completed and an analysis of any changes from the previous assessments and conclusions.

e. IDEM reviews the proposed ATEL.

f. IDEM reviews the proposed point of compliance for the proposed ATEL. The point of compliance may be determined through a formula designed to simulate the mixed river temperature.

g. Once the application for ATEL is deemed complete, IDEM will make a tentative decision to either approve or deny the ATEL. The tentative decision will be included in a draft NPDES permit that is placed on public notice for a 30-day public comment period. The public notice will provide the proposed ATEL and the limitations that would have been required otherwise. A public hearing may be requested during the 30 day comment period.

h. IDEM will respond to all comments received during the 30 day comment period and from a public hearing, if applicable, and make a final decision regarding the ATEL. The final decision regarding the ATEL will be included in the final NPDES permit with the opportunity to appeal the final decision during the eighteen (18) day appeal period after the final permit is issued.

B. <u>Facility Specific</u>

The existing permit contains ATELs for the discharge from Outfalls 001 and 002 that were approved by U.S. EPA and IDEM in 1990. The original 301(a) variance request was submitted by Bethlehem Steel (former owner/operator of the facility) on February 7, 1975.

When the permit was being renewed in 1988, the ATELs were being questioned by IDNR in response to creel census data of the fish gathered by IDNR that indicated that the thermal component of the discharge from Outfall 001 was having a significant impact on the salmonid migration from Lake Michigan to the Little Calumet River upstream of Outfall 001. The permit issued in 1988 required Bethlehem Steel to conduct engineering studies to assess several possible approaches to mitigate the adverse thermal impacts.

Bethlehem Steel submitted an Evaluation of Options to Mitigate the Thermal Discharge Impacts shortly after the issuance of the 1988 permit.

On July 16, 1990, a letter was sent to Bethlehem Steel, from IDEM, authorizing the addition of up to 35,000 gallons per minute of Lake Michigan water to Outfall 001 to assure compliance with the thermal limits at Outfall 001. The typical operation for the addition of Lake Michigan water is triggered by temperature monitoring by the Burns Harbor central dispatch office, which is manned 24-hours per day and monitors critical operating parameters for the plant.

The basis present to IDEM and U.S. EPA for approving the ATELs contained in the 1988 permit is a demonstration that there is no prior appreciable harm to the aquatic life.

Since the implementation of the addition of Lake Michigan water to meet the thermal effluent limits at Outfall 001, there has not been any indication that the thermal component of the discharge from Outfall 001 is causing any adverse impacts on the aquatic life in the Little Calumet River downstream of Outfall 001. In addition, discussions between IDEM and IDNR confirms that IDNR has not seen any adverse effects from the thermal discharges for Outfall 001. Therefore, the ATELs contained in the existing permit will be included in this permit renewal in accordance with 327 IAC 5-7-4(c)(1)(A).

In the renewal application for this permit, ArcelorMittal asked for a renewal of the ATELs for Outfalls 001 and 002. However, the facility is collecting thermal plume data and information to submit a new 316(a) variance request. That request is expected to be completed in 2018 and will be addressed in a modification to this permit.

The existing ATELs are included in this permit and are as follows:

Outfall 001

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°F	60	60	65	71	81	86	86	86	85	80	75	65

Outfall 002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
°F	55	57	63	69	77	82	88	90	88	81	72	63

6.4.2 Clean Water Act Section 316(b) Cooling Water Intake Structure(s) (CWIS)

Introduction

In accordance with 40 CFR 401.14, the location, design, construction and capacity of cooling water intake structures of any point source for which a standard is established pursuant to section 301 or 306 of the Act shall reflect the best technology available for minimizing adverse environmental impact.

The EPA promulgated a Clean Water Act (CWA) section 316(b) regulation on August 15, 2014, that establishes standards for cooling water intake structures. 79 Fed. Reg. 48300-439 (August 15, 2014). The regulation establishes best technology available standards to reduce impingement and entrainment of aquatic organisms at existing power generation and manufacturing facilities and it became effective on October 14, 2014.

For permits expiring prior to 45 months from the effective date (before July 2018), the permittee can (1) negotiate an alternative schedule for submitting required information with the Director (IDEM) after demonstrating need, or (2) request waiver(s) for submitting required information. An alternative schedule for submission of information required under the current CWA section 316(b), or waiver(s) of submittal requirements shall be reviewed by EPA Region 5 and approved by IDEM. Upon approval of such alternative schedules and /or waivers, or until the time the required information/reports are submitted and the permit is renewed or modified following public notice, the IDEM is required to make a BTA determination using Best Professional Judgment (BPJ) to comply with CWA Section 316(b) based on existing information. The BTA determination is subject to change after the required information is submitted in accordance with the federal regulations effective October 14, 2014.

Intake Water Structures Descriptions

The ArcelorMittal Burns Harbor plant is an integrated steel manufacturing facility that uses Lake Michigan water primarily for once-through non-contact cooling water and as process water for basic steelmaking and steel finishing operations. The Burns Harbor facility is authorized to withdraw water for their process and non-contact cooling water needs from two intake cribs (East-Pumping Station No. 1 and West-Pumping Station No. 2 Cribs). The intakes are located approximately 3,600 ft. off-shore of the Burns Harbor facility in the Southern Lake Michigan Basin at a depth of roughly 40 feet. The total design capacity of both pump stations is 748.8 MGD.

The Burns Harbor intakes are designed so that Pump Station No. 1 can withdraw water from either or both the West and East Cribs, while Pump Station No. 2 can withdraw from the West Crib only. In addition, Pump Station No. 1 has the ability to withdraw water, in emergency situations, from a separate intake associated with an adjacent power generation facility (NIPSCO Baily Generating Station, NPDES Permit No. IN0000132). The east and west cribs withdraw water through concrete intake conduits that are approximately 9 feet in diameter, which are capped with bars spaced approximately 4 inches apart in center portion, and 2.25 feet apart in the outer portion. The intake velocity of water through the cribs, at full design capacity, is 0.29 feet per second (fps).

From the intake openings, water flows through the conduit, into an intake bay and through a series of vertical bar screens that protect the traveling screens and wet well pumps from

large debris (and fish), and to a wet well in which it is withdrawn via wet well pumps for facility uses.

Pump Station No. 1

Four traveling screens are located within the pump station with large concrete intake chambers located after the traveling screens. Water is withdrawn from there for facility use via large capacity lift pumps. The traveling screens are rotated and backwashed intermittently for the removal of collected debris. The 4 traveling screens are 10 feet each in width and are oriented in a two by two parallel orientation. The traveling screens have debris baskets that are vertically shaped approximately every 2 feet, span across the width of the screen, and are each approximately 2 feet wide by 4 inches deep. The traveling screens are constructed of 0.25-inch mesh. The actual intake velocity of water across the intake screens at Pump Station No. 1 is 0.19 fps.

The debris baskets for each screen are emptied into a common backwash trough during the screen wash operating cycle. The trough has a small bar screen to retain larger debris that may plug the discharge pipe. The distance from the screen bottom up to the water surface is approximately 18 feet. The approximate distance from the water surface to the top of the traveling screens just before the contents of the debris basket empties into the return trough is about 15 feet. The trough gradually slopes to a discharge pipe, where it discharges to a shared trough with the Pump Station No. 2 screen backwash waters and backwash waters from lift pump strainers. The shared trough then discharges back to Lake Michigan via Outfall 003.

Pump Station No. 2

Four traveling screens are located within the pump station with large concrete intake chambers located after the traveling screens. Water is withdrawn from there for facility use via large capacity lift pumps. The traveling screens are rotated and backwashed intermittently for the removal of collected debris. The 4 traveling screens are 14 feet in length and are oriented in a single row perpendicular to the incoming flow. The traveling screens have debris baskets that are vertically shaped approximately every 2 feet, span across the width of the screen, and are each approximately 2 feet wide by 4 inches deep. These traveling screens are also constructed of 0.25-inch mesh. The actual intake velocity of water across the intake screens at Pump Station No. 2 is 0.28 fps.

The debris baskets for each screen are emptied into a common backwash trough during the screen wash operating cycle. The trough has a small bar screen to retain larger debris that may plug the discharge pipe. The distance from the screen bottom up to the water surface is approximately 38 feet. The approximate distance from the water surface to the top of the traveling screens just before the contents of the debris basket empties into the return trough is about 13.5 feet. The trough gradually slopes to a discharge pipe, where it discharges to a shared trough with the Pump Station No. 1 screen backwash waters and backwash waters from lift

pump strainers. The shared trough then discharges back to Lake Michigan via Outfall 003

For both pump stations, the wash operating cycle, which can be manually and individually controlled for each screen, consists of downward spraying backwash sprays coupled with upward rotation of the traveling screen. There are no in-trough wash down sprays. Though the rate of sprays cannot be adjusted, the traveling screen rotation speed can be set either at a high setting of approximately 12 feet per minute (fpm) or a low setting of approximately 3 fpm. Currently, operation of the wash operating cycle is normally controlled via timer; however the operating cycle will also be initiated if there is an exceedance of 4.5 inches in water level differential.

Background Information and Applicability of Current Clean Water Act (CWA) Section 316(b) Requirements

ArcelorMittal Burns Harbor's current NPDES permit expires on February 29, 2016. The renewal application for NPDES permit was submitted on August 31, 2015. The Burns Harbor facility is subject to the requirements of the new CWA Section 316(b) because it meets the following criteria:

- The facility is a point source and uses one or more cooling water intake systems (CWIS) that withdraw from waters of the U.S.,
- The CWIS(s) have a total design intake flow (DIF) greater than 2 million gallons per day (MGD), and
- The facility uses at least 25% of the withdrawn water exclusively for cooling purposes.

Total design withdrawal capacity of the East and West Cribs is 1.25 Billion gallons per day and the through screen design intake velocity is 0.29 fps. The water withdrawn is primarily used for once-through non-contact cooling water and other process uses. Currently, the traveling screens at Pump Station 1 and 2 are run intermittently, based on timing and/or pressure.

The previous operators of this facility, Bethlehem Steel, completed a study of the entrainment of fish eggs and larvae that was conducted from April 1976, to April 1977. The results of the study did not raise any concerns by the state or federal environmental agencies.

Per Part III.A of the current ArcelorMittal Burns Harbor NPDES permit, the facility was required to perform an on-going 2-year entrainment and impingement studies starting in Year 2 of the 2011 Permit to further characterize the nature and extent of the environmental impacts from operation of the Cooling Water Intake Structure (CWIS) in a scientific manner.

Pursuant to Part III.A of the NPDES Permit, ArcelorMittal Burns Harbor conducted fish impingement and entrainment studies at the CWIS from June 2012 to June 2014. A Final Report summarizing results from the two-year impingement and entrainment study was submitted to the Indiana Department of Environmental Management (IDEM) in March 2015.

Impingement Studies (mid 2012 – mid 2014)

Impingement occurs when organisms (primarily juvenile or older fish) are trapped against CWIS screens by the velocity of the intake flow. Mortality of fish may occur due to exhaustion, injury, abrasion, and asphyxiation. Differences in abundance of fish susceptible to impingement are often associated with spawning, seasonal migration, or other behavioral patterns such as diurnal feeding strategies. One of the goals of the impingement study is to determine the peak periods for spawning activity when biota are most abundant in the CWIS, which are generally known to occur during spring (March-June) and fall (October-November) months on Southern Lake Michigan.

Impingement samples were collected twice per month during the spring and fall to reflect the peak spawning periods expected for fishes in the Southern Basin of Lake Michigan. Based on previous impingement data a minimum 8-hr sample period was found to be appropriate (Bethlehem Steel 1977) and was used at each of the pump stations according to the sampling schedule. A total of 32 impingement sampling events were conducted from June 2012-May 2014 at PS#1 and PS#2, and all months of the year were sampled except for December and January.

Fish impingement sampling involved the collection of fish species retained by normal operation of the traveling screen systems at PS#1 and PS#2. Fish were collected from the debris trough that transports material away from the cleaned traveling screens and debris trays following backwash operations. Impinged fish specimens at PS#1 were collected using hand-held landing nets and a debris catch bin (0.6-inch mesh) designed to fit within the debris return trough. The catch bin was positioned within the trough to retain any fish not captured by hand net. The return trough was monitored continuously for fish using a manual rotation of landing nets, and the debris basket checked frequently for fresh specimens. Impinged fish collection occurred regularly during the sampling event, so live fish were not stranded in the sampling equipment for extended periods of time. All live impinged fish were transferred to an aerated holding tank within PS#1 for processing after a 32- hour minimum holding time. Water in the holding tanks was supplied via a flow-through pump system and obtained from the wet well so that temperature and oxygen conditions were appropriate. Live fish that incurred injuries that likely resulted in death during the holding period were noted. Any live fish having protected or special status (i.e., species of concern), were to be immediately processed and returned to the receiving water so re-capture was avoided; but no species of concern were collected during the 2012-2014 sample period.

Entrainment Studies (mid 2012 – mid 2014)

Entrainment includes small organisms such as fish and mussel larvae, eggs, aquatic insects and plankton that are incorporated within the intake water and are not removed by relatively coarse screens or other mechanisms of the CWIS. Mortality of entrained organisms can occur from exposure to a high degree of turbulence, abrasion, and a rapid change in water temperature. Differences in abundance of organisms within the water column that could be entrained are typically associated with fish spawning, diurnal foraging, and/or migration. The goal of the entrainment study is to obtain diurnal samples of entrained organisms during the annual peak reproduction and development periods for the expected population of local fish species. A negligible amount of fish larvae and fish

eggs were collected during April, May, September, October and November. The Bethlehem Steel study (1997) revealed that the sampling period for this study was appropriate; however the sampling schedule was expanded to validate previous findings and account for annual variations in lake temperature that often trigger fish spawning periods.

Entrainment was assessed at PS#1 and PS#2. The source of the water for entrainment samples was from the wet well at a point between the traveling screens and the intake pumps. The PS#1 and PS#2 entrainment sampling pumps and hose systems were positioned in the middle of the pump house buildings on the intake pump side of the traveling screens. Intake hose access to the wet wells was provided by removal of a deck plate. The holding tank and plankton net apparatus were positioned adjacent to the pneumatic pump systems so that the outlet hoses of the pump systems could be easily positioned at the mouth of the submerged plankton nets. The entire entrainment pump system and net assemblies were located in open areas within the pump houses providing safe and clear access for normal PS#1 and PS#2 operations, sampling, and sample retrieval. Following each sample period, entrainment samples were transferred from the plankton net container to a labeled sample bottle, preserved, and shipped for analyses.

Impingement and Entrainment Study Results (mid 2012 – mid 2014)

A total of ten different species of fish were impinged at PS#1 and PS#2. Round goby and yellow perch were caught with regularity, while some species such as bluegill were only caught during one sample event. Round goby was caught the most of any species at PS#1, while yellow perch dominated the overall catch at PS#2. At PS#1 88 percent of the total catch for all 32 sample events consisted of alewife, round goby, and yellow perch; while at PS#2 the same three species accounted for 91 percent of the catch. At PS#1 96 percent of the total catch weight consisted of alewife, round goby, and yellow perch; while at PS#2 the weight of the three most common fish accounted for 89 percent of the total.

Entrainment sample analysis focused on identification to the lowest practical taxonomic classification for enumeration of fish larvae, fish eggs, mussel veliger, and immature mussels. However, most of the entrained items were not able to be keyed out to genus and species level due to the limited number of defining physical characteristics of the specimens collected. Almost all fish larvae collected were round goby. Larvae from only one other species, alewife, was confirmed caught at PS#2 during the weeks of August 17, 2012 and August 16, 2013. In most cases fish eggs were identified only to class level (i.e. ―ray finned fishes‖) and in a single case were identified to family. Other forms of plankton were noted as present in relative abundance (i.e. common or rare) and identified in general terms (zooplankton, filamentous algae, etc.). A subsample of the largest fish larvae (or fish) from among all specimens captured was measured for total length.

No fish larvae and eggs were found in over 80 percent of the samples at PS#1 and PS#2. The total abundance of fish larvae and eggs was highest at PS#1 during the sampling period of August 16, 2013. At PS#2 total abundance of ichthyoplankton also peaked the week of August 16, 2013.

Given the high percentage of samples with no entrained ichthyoplankton, and with most of the positive samples being dominated by round goby larvae, the impact due to entrainment is considered negligible.

Impingement Mortality BTA Alternative

To meet compliance with impingement mortality standards, the Final 316(b) Regulations at 40 CFR 125.94(c) identify the following possible compliance alternatives:

1. Implementation of a closed-cycle recirculating system (40 CFR 125.94(c)(1));
2. Operation of a CWIS with a through screen design intake velocity of less than or equal to 0.5 fps (40 CFR 125.94(c)(2));
3. Operation of a CWIS that is operated so that the associated through screen intake velocity is less than or equal to 0.5 fps (40 CFR 125.94(c)(3));
4. Operation of an existing offshore velocity cap (40 CFR 125.94(c)(4));
5. Implementation of modified ―fish-friendly‖ traveling screens with fish return systems (40 CFR 125.94(c)(5));
6. Implementation of a system of technologies that would meet BTA for impingement mortality (40 CFR 125.94(c)(6)); and,
7. Compliance with an annual average impingement mortality standard of 24% (40 CFR 125.94(c)(7)).

The Burns Harbor Facility's CWIS is operated with associated actual through-screen intake velocities of less than 0.5 fps. The 0.5 fps threshold requirement meets the compliance alternative set out at 40 CFR 125.94(c)(3)

Entrainment BTA

The IDEM must also make a BTA determination for entrainment. A BTA determination for entrainment is made on a site-specific basis for facilities with an actual intake flow (AIF) of greater than 125 MGD. Based on ArcelorMittal's Impingement and Entrainment Study Report (February 2015), no threatened or endangered species were encountered; nor were there any species on the Indiana Department of Natural Resources list of species of concern collected during sampling (Indiana Department of Natural Resources 2015). The results of entrainment sampling and the subsequent data evaluation demonstrated that entrainment of critical fish eggs, larvae, and other valued ichthyoplankton by the Burns Harbor CWIS and equipment has found to be negligible. In addition to the maximum DIV, the average intake velocity at East and West Cribs is 0.29 ft/sec, which is well under the 0.5 ft/sec threshold. Additionally, the DIV at Pump Station #1 is 0.19 fps, and 0.28 fps at Pump Station #2.

Per 40 CFR125.98(f)(2), IDEM is requesting the following information with the next permit renewal application to assist IDEM with the fact sheet or statement of basis for entrainment BTA in the next permit:

(i) Impact of changes in particulate emissions or other pollutants associated with alternate entrainment technologies;
(ii) Land availability inasmuch as it relates to the feasibility of entrainment technology;
(iii) Remaining useful plant life; and

(iv) Quantified and qualitative social benefits and costs of available entrainment technologies when such information on both benefits and costs is of sufficient rigor to make a decision.
(v) Entrainment impacts on the waterbody;
(vi) Thermal discharge impacts;
(vii) Credit for reductions in flow associated with the retirement of units occurring within the ten years preceding October 14, 2014;
(viii) Impacts on water consumption; and
(ix) Availability of process water, gray water, waste water, reclaimed water, or other waters of appropriate quantity and quality for reuse as cooling water.

Conclusion

A copy of the ArcelorMittal Burns Harbor Permit Renewal Application was sent to the U.S. Fish and Wildlife Office on 10/22/2015. The 60 day review period ended 12/1/2015. No comments were received.

ArcelorMittal submitted the facility specific information 40 CFR 122.21(r) (2) through (r) (8) through a series of submittals, as required by Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326). IDEM determined ArcelorMittal Burns Harbor to be compliant with CWA Section 316(b) application requirements for the proposed permit cycle based on available information at this time.

As described in the above, IDEM has made a Best Technology Available (BTA) determination that the existing cooling water intake structures represent best technology available to minimize adverse environmental impact in accordance with Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326) at this time. This determination is based on Best Professional Judgment (BPJ) based on currently available information and will be reassessed at the next permit reissuance to ensure that the CWISs continue to meet the requirements of Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326).

Permit Conditions

In accordance with 40 CFR 125.95(a)(1), the permittee must submit to the IDEM the information required in the applicable provisions of 40 CFR 122.21(r) when applying for a subsequent permit (consistent with the permittee's duty to reapply pursuant to 40 CFR 122.21(d)). Per 40 CFR 125.95(c), after the initial submission of the 40 CFR 122.21(r) permit application studies the permittee may, in subsequent permit applications, request to reduce the information required, if conditions at the facility and in the waterbody remain substantially unchanged since the previous application so long as the relevant previously submitted information remains representative of current source water, intake structure, cooling water system, and operating conditions. The permittee must submit its request for reduced cooling water intake structure and waterbody application information to the IDEM at least two years and six months prior to the expiration of its NPDES permit. The permittee's request must identify each element of the application requirements that it determines has not substantially changed since the previous permit application and the basis for the determination. IDEM has the discretion to accept or reject any part of the request. The permittee shall comply with requirements below:

1. In accordance with 40 CFR 125.98(b)(1), nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.

2. At all times properly operate and maintain the intake equipment and incorporate management practices and operational measures necessary to ensure proper operation of the CWIS.

3. Provide advance notice to IDEM of any proposed changes to the CWIS or proposed changes to operations at the facility that affect the information taken into account in the current BTA evaluation.

4. There shall be no discharge of debris from intake screen washing which will settle to form objectionable deposits which are in amounts sufficient to be unsightly or deleterious, or which will produce colors or odors constituting a nuisance.

5. All required reports shall be submitted to the IDEM, Office of Water Quality, NPDES Permits Branch.

6. Submit the information required to be considered by the Director per 40 CFR 125.98 to assist IDEM with the fact sheet or statement of basis for entrainment BTA, as soon as practicable, but no later than with the application for the next permit renewal.

6.4.3 301(g) Proposed Modified Effluent Limits

Section 301(g) of the Clean Water Act and 327 IAC 5-3-4(b)(2) allow for a variance from the applicable BAT requirements through the development of Proposed Modified Effluent Limitations (PMELs) for the non-conventional pollutants of ammonia, chlorine, color, iron, and total phenols (4AAP) provided the following conditions are met:

1. The proposed modified effluent limits (PMELs) will meet the categorical BPT effluent limits (Technology Based Effluent Limits) or applicable water quality based effluent limits (WQBEL), whichever are more stringent;

2. The PMELs will not result in any additional requirements on other point or non-point sources;

3. The PMELs will not interfere with the attainment or maintenance of water quality which will protect public water supplies, aquatic life, and recreational activities; and,

4. The PMELs will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity, or teratogenicity, or synergistic properties).

In November 1983, the owner and operator of the ArcelorMittal Burns Harbor facility, Bethlehem Steel, applied for “waiver” from the BAT limitations contained in the ironmaking and sintering subcategories of 40 CFR 420. That application supplemented previous applications submitted in September 1978 and July 1982. On February 4, 1988, the U.S. EPA granted a variance from the best available technology economically achievable requirements provided for by the federal NPDES permit requirements of the Clean Water Act pursuant to section 301(g). Based upon this authorization, modified limitations for ammonia and phenols were granted.

For this permit renewal, IDEM determined that the previously approved variance limits for ammonia and phenols will result in compliance with the Indiana Water Quality Standards and that all the above 301(g) conditions listed above will be met.

The WQBELs for ammonia based on the current applicable water quality criteria are 1.13 mg/l as the monthly average and 1.7 mg/l as the daily maximum. All of the PMELs are more stringent than the WQBELs for ammonia.

Indiana does not have numerical water quality standards for total phenols (4AAP) applicable to the Little Calumet River. When the initial 301(g) variance was approved in 1988, IDEM and EPA Region V considered whether any toxic phenols were present in the Outfall 001 discharge at levels that would interfere with attainment of Indiana Water Quality Standards. The Section 301(g) variance for total phenols was initially approved on that basis. The current Indiana Water Quality Standards refer to narrative criteria at Section (c)(1)(A) and (B) to protect aesthetic qualities of taste in food fish and odor in the vicinity of the discharge. There are no numeric criteria for Lake Michigan for total phenols.

The approved 301(g) variance limitations are identified in Section 6.1 of this Fact Sheet.

ArcelorMittal Burns Harbor has requested a new or modified 301(g) variance in this renewal application for ammonia at Outfall 001. As of the issuance of this permit, IDEM and U.S. EPA have not been able to determine if the modified 301(g) variance request meets the conditions identified above adequately. Therefore, IDEM is proposing to continue the previously approved PMELs for ammonia and phenols. IDEM, U.S. EPA, and ArcelorMittal Burns Harbor will work to address the modified 301(g) variance in a future modification to this NPDES permit. That modified permit, and all decisions associated with such, will be available for public comment per 327 IAC 5-3-6.

6.4.4 Polychlorinated Biphenyl (PCB)

There shall be no discharge of polychlorinated biphenyl (PCB) compounds attributable to facility operations such as those historically used in transformer fluids. In order to determine compliance with the PCB discharge prohibition, the permittee shall provide the following PCB data with the next NPDES permit renewal application for at least one sample taken from each final outfall. The corresponding facility water intakes shall be monitored at the same time as the final outfalls.

Pollutant	Test Method	LOD	LOQ
PCBs*	EPA 608	0.1 ug/L	0.3 ug/L

*PCB 1242, 1254, 1221, 1232, 1248, 1260, 1016

6.5 Spill Response and Reporting Requirement

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.(d), Part II.B.3.(c), and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

6.6 Permit Processing/Public Comment

Pursuant to IC 13-15-5-1, IDEM will publish a general notice in the newspaper with the largest general circulation within the above county. A 30-day comment period is available in order to solicit input from interested parties, including the general public. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form.

Attachment A
Waste Load Allocation Report

State Form 4336

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: December 21, 2015

To: Richard Hamblin
Permits Branch

From: John Elliott
Permits Branch

Subject: Wasteload Allocation Report for ArcelorMittal Burns Harbor in Porter County (IN0000175, WLA002161)

Reasonable potential analyses for free cyanide and whole effluent toxicity (WET) were done for the renewal of the NPDES permit for ArcelorMittal Burns Harbor. The analyses were done for Outfall 001 which discharges to the East Branch of the Little Calumet River. The discharge through Outfall 001 is covered under the rules for the Great Lakes system. The effluent flow used in the analyses was 135 mgd.

The East Branch of the Little Calumet River is designated for full-body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. The East Branch of the Little Calumet River and its tributaries downstream to Lake Michigan via Burns Ditch (Portage-Burns Waterway) are designated in 327 IAC 2-1.5-5(a)(3)(B) as salmonid waters and shall be capable of supporting a salmonid fishery. Therefore, the East Branch of the Little Calumet River and Portage-Burns Waterway are designated as salmonid waters. The East Branch of the Little Calumet River enters the Indiana Dunes National Lakeshore at S.R. 20 (upstream of Outfall 001) and leaves the Indiana Dunes National Lakeshore about 0.5 miles upstream of its confluence with Portage-Burns Waterway (about 1.0 miles downstream of Outfall 001). All waters incorporated in the Indiana Dunes National Lakeshore are designated in 327 IAC 2-1.5-19(b)(3) as an outstanding state resource water (OSRW).

The 2012 assessment unit for East Branch Little Calumet River at Outfall 001 is INC0143_04. This assessment unit is on the 2012 303(d) list for PCBs in fish tissue and impaired biotic communities. A TMDL for *E. coli* for East Branch Little Calumet River at the outfall was approved by U.S. EPA January 28, 2005 and is part of the Little Calumet/Burns Ditch TMDL. The Q7,10 of the East Branch of the Little Calumet River upstream of Outfall 001 is 21 cfs.

A reasonable potential analysis for Outfall 001 was done for free cyanide in accordance with the reasonable potential statistical procedure in 327 IAC 5-2-11.5(b). The facility provided effluent data for free cyanide as part of their permit renewal application. The calculation of the monthly average and daily maximum projected effluent quality (PEQ) for free cyanide is included in Table 1. The results of the reasonable potential procedure are included in Table 2 and they show that there is a reasonable potential to exceed for free cyanide. Therefore, water quality-based effluent limitations (WQBELs) are required for free cyanide. WQBELs for free cyanide are included in Table 3.

A reasonable potential analysis for WET was done in accordance with the Federal Great Lakes Guidance in 40 CFR Part 132. U.S. EPA overpromulgated Indiana's reasonable potential procedure for WET in 327 IAC 5-2-11.5(c)(1) and Indiana is now required to apply specific portions of the Federal Great Lakes Guidance when conducting reasonable potential analyses for WET. Indiana's requirements are included under 40 CFR Part 132.6. The results of the reasonable potential analysis for WET show that the discharge has a reasonable potential to exceed the numeric interpretation of the narrative criterion for chronic WET. Therefore, WQBELs are required for WET.

Once a determination is made that WQBELs are required for WET, the WQBELs are established in accordance with 327 IAC 5-2-11.6(d). This provision allows a case-by-case determination of whether to establish a WQBEL for only acute or chronic WET, or WQBELs for both acute and chronic WET, the number of species required for testing and the particular species required for testing. The purpose of this WLA report is not to make these determinations, but to provide the numerical limits. The numerical limits for acute and chronic WET are included in Table 3. The documentation of the wasteload allocation analysis is included as an attachment.

TABLE 1
Calculation of Projected Effluent Quality
For ArcelorMittal Burns Harbor in Porter County
(IN0000175, WLA002161)

Parameter	Monthly Average PEQ					Daily Maximum PEQ				
	Maximum Monthly Average (mg/l)	Number of Monthly Averages	CV	Multiplying Factor	Monthly Average PEQ (mg/l)	Maximum Daily Sample (mg/l)	Number of Daily Samples	CV	Multiplying Factor	Daily Maximum PEQ (mg/l)
Cyanide, Free	0.0182	3	0.6	3.0	0.055	0.0537	14	1.7	2.5	0.13

12/21/2015

TABLE 2
Results of Reasonable Potential Statistical Procedure
For ArcelorMittal Burns Harbor in Porter County
(IN0000175, WLA002161)

Parameter	Monthly Average Comparison			Daily Maximum Comparison			WQBELs Required?
	Monthly Average PEQ (mg/l)	Monthly Average PEL (mg/l)	PEQ > PEL?	Daily Maximum PEQ (mg/l)	Daily Maximum PEL (mg/l)	PEQ > PEL?	
Cyanide, Free	0.055	0.0044	Yes	0.13	0.0088	Yes	Yes

12/21/2015

TABLE 3
Water Quality-based Effluent Limitations
For ArcelorMittal Burns Harbor in Porter County
(IN0000175, WLA002161)

Parameter	Quality or Concentration			Quantity or Loading*			Monthly
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Sampling Frequency
Cyanide, Free	0.0044	0.0088	mg/l	5.0	9.9	lbs/day	4
Whole Effluent Toxicity							
Acute		1.0	TUa				
Chronic	1.0		TUc				

*Based on an effluent flow of 135 mgd.

12/21/2015

Documentation of Wasteload Allocation Analysis For Discharges to the Great Lakes System

Analysis By: John Elliott
Date: December 21, 2015
WLA Number: 002161

Facility Information

- **Name:** ArcelorMittal Burns Harbor
- **NPDES Permit Number:** IN0000175
- **Permit Expiration Date:** February 29, 2016
- **County:** Porter
- **Purpose of Analysis:** Reasonable potential analysis for the permit renewal.
- **Outfall Number:** 001
- **Facility Operations:** Treated process wastewater from Internal Outfall 011 (which includes treated sanitary wastewater from the Town of Burns Harbor's WWTP permitted under operational permit (INJ060801)), noncontact cooling water, storm water, and Lake Michigan water used for control of effluent temperature
- **Current Permitted Flow:** 137 mgd (used to calculate WQBELs in current permit)
- **Type of Treatment:** None besides the treatment for sources to Internal Outfall 011
- **Current Effluent Limits:** This table only includes the parameters for which a reasonable potential analysis is being conducted.

Parameter	Monthly Average		Daily Maximum		Measurement Frequency
	(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
Acute WET (TUa)#	--	--	Report	--	Quarterly
Chronic WET (TUc)+	Report	--	--	--	Quarterly

An acute toxicity reduction evaluation trigger of 1.0 TUa applies to the discharge.
+ A chronic toxicity reduction evaluation trigger of 1.0 TUc applies to the discharge.

- **Effluent Flow for WLA Analysis:** 135 mgd (Under 327 IAC 5-2-11.4(a)(9) the effluent flow used to develop WLAs for industrial dischargers is the highest monthly average flow from the previous two years of monitoring. An alternate effluent flow value may be used if the discharger provides flow data that supports the alternate value. The highest monthly average flow from November 2013 through October 2015 was 133 mgd and occurred during September 2014. The highest monthly average flow during the term of the current permit (March 2011 through October 2015) was 135 mgd and occurred in August 2011. It was decided to use the value of 135 mgd since data are available to support it and it is noted as the maximum monthly average flow in the NPDES permit renewal application. The monthly average flow data are included in Attachment 1.)

Pollutants of Concern and Type of WLA Analysis

Pollutants of Concern and Type of WLA Analysis		
Parameter	**Type of Analysis**	**Reason for Inclusion on Pollutants of Concern List**
Free Cyanide	RPE	Data collected for permit renewal and submitted on Form 2C were elevated. Internal Outfall 011 has a technology-based effluent limitation for total cyanide.
Acute and Chronic WET	RPE	Monitored in current permit.

Receiving Stream Information

- **Receiving Stream:** Outfall 001 discharges to the East Branch of the Little Calumet River to Portage-Burns Waterway to the Indiana portion of the open waters of Lake Michigan; Outfall 001 is within the Indiana Dunes National Lakeshore (see Attachment 2)
- **Drainage Basin:** Lake Michigan
- **Public Water System Intakes Downstream:** None on the East Branch of the Little Calumet River or Portage-Burns Waterway. There are several public water system intakes in Lake Michigan, but none will impact this analysis.
- **Designated Stream Use:** The East Branch of the Little Calumet River is designated for full-body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. Portage-Burns Waterway is designated for full-body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. Lake Michigan is designated for full-body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. The East Branch of the Little Calumet River and its tributaries downstream to Lake Michigan via Burns Ditch (Portage-Burns Waterway) are designated in 327 IAC 2-1.5-5(a)(3)(B) as salmonid waters and shall be capable of supporting a salmonid fishery. Therefore, the East Branch of the Little Calumet River and Portage-Burns Waterway are designated as salmonid waters. The Indiana portion of the open waters of Lake Michigan is designated in 327 IAC 2-1.5-5(a)(3)(G) as a salmonid water and shall be capable of supporting a salmonid fishery. The East Branch of the Little Calumet River enters the Indiana Dunes National Lakeshore at S.R. 20 (upstream of Outfall 001) and leaves the Indiana Dunes National Lakeshore about 0.5 miles upstream of its confluence with Portage-Burns Waterway (about 1.0 miles downstream of Outfall 001). All waters incorporated in the Indiana Dunes National Lakeshore are designated in 327 IAC 2-1.5-19(b)(3) as an outstanding state resource water (OSRW). The Indiana portion of the open waters of Lake Michigan is designated in 327 IAC 2-1.5-19(b)(2) as an outstanding state resource water (OSRW).
- **12 Digit HUC:** 040400010403
- **Assessment Unit (2012):** INC0143_04 (Little Calumet River, East Arm)
- **303(d) List (2012):** At the outfall (Assessment Unit INC0143_04), East Branch Little Calumet River is on the 2012 303(d) list for PCBs in fish tissue and impaired biotic

communities. Portage-Burns Waterway (assessment unit INC0159_02) is on the 2012 303(d) list for PCBs in fish tissue. The Lake Michigan shoreline from Portage-Burns Waterway east to Trail Creek (assessment unit INC0163G_G1093) is on the 2012 303(d) list for mercury and PCBs in fish tissue. Lake Michigan (Assessment Unit INM00G1000_00) is on the 2012 303(d) list for mercury and PCBs in fish tissue.

- **TMDL Status:** A TMDL for *E. coli* for East Branch Little Calumet River at the outfall and Portage-Burns Waterway was approved by U.S. EPA January 28, 2005 and is part of the Little Calumet/Burns Ditch TMDL. A TMDL for *E. coli* for the Lake Michigan shoreline was approved by U.S. EPA September 1, 2004 and is part of the Lake Michigan TMDL.
- **Q7,10 (Outfall):** 21 cfs
- **Q1,10 (Outfall):** 20 cfs
- **Harmonic Mean Flow (Outfall):** 48 cfs

(USGS gaging station 04094000 Little Calumet River at Porter is upstream of the outfall at S.R. 20. The drainage area at this gage is 66.2 mi^2, the Q7,10 is 21 cfs, the Q1,10 is 20 cfs, and the harmonic mean flow is 48 cfs. The drainage area and stream design flows were obtained from the book Low-Flow Characteristics for Selected Streams in Indiana by Kathleen K. Fowler and John T. Wilson, published in 2015 by the USGS.)

- **Nearby Dischargers:** The Chesterton WWTP (IN0022578) and Praxair (IN0043435) discharge to East Branch Little Calumet River upstream of Outfall 001. U.S. Steel - Midwest Plant (IN0000337) has three outfalls on Portage-Burns Waterway downstream of Outfall 001. The Chesterton WWTP currently does not have limits for any metals other than mercury. Praxair has limits for total residual chlorine, but the discharge flow is small in comparison to the stream flow. Therefore, none of these dischargers will impact this analysis.

Calculation of Preliminary Effluent Limitations

For free cyanide, water quality is only measured if samples measured for total cyanide show values above the limit of quantitation (LOQ). Water quality data for total cyanide upstream of the outfall were obtained from fixed water quality monitoring station LCR 39 East Branch Little Calumet River at Porter. The station is located at S.R. 149, south of U.S. Highway 12. The station is downstream of the Chesterton WWTP and upstream of Praxair. Monitoring for total cyanide was discontinued in May 2006. The period January 2004 through May 2006 was used in the analysis and all values were less than the LOQ. Therefore, the background concentration of free cyanide was set equal to zero. The data for total cyanide are in Attachment 3.

The coefficient of variation used to calculate monthly average and daily maximum PELs was set equal to the default value of 0.6. The number of samples per month used to calculate monthly average PELs was set equal to 4 for free cyanide based on the expected monitoring frequency. The spreadsheet used to calculate PELs for all pollutants of concern is included in Attachment 4.

Reasonable Potential Analysis

Calculation of Projected Effluent Quality

The facility provided effluent data for free cyanide for Outfall 001 as part of their permit renewal application. The data were collected in May, July and August 2015. The data are included in Attachment 5. The facility currently has technology-based effluent limitations for total cyanide at internal Outfall 011. The effluent data used in the reasonable potential analysis include values reported as less than (<) the LOD. There is no procedure in the rules for handling effluent data reported as less than the LOD. As a conservative first test of reasonable potential, they were set equal to the LOD.

Comparison of PEQs to PELs

The reasonable potential analysis using Outfall 001 data is included in Attachment 6. The results show that a PEQ exceeds a PEL for free cyanide. Therefore, water quality-based effluent limitations (WQBELs) are required for free cyanide.

Calculation of Water Quality-based Effluent Limitations

The PELs for free cyanide in Attachment 4 are based on water quality criteria and may be included in an NPDES permit as WQBELs.

Reasonable Potential Analysis for Whole Effluent Toxicity (WET)

U.S. EPA disapproved the reasonable potential procedure for whole effluent toxicity at 327 IAC 5-2-11.5(c)(1). In place of 327 IAC 5-2-11.5(c)(1), IDEM is required to apply Paragraphs C.1 and D of Procedure 6 in Appendix F of 40 CFR Part 132. The following analysis is based on Paragraphs C.1 and D of Procedure 6 in Appendix F of 40 CFR Part 132.

Effluent Data

The permit renewal effective March 1, 2011 required ArcelorMittal Burns Harbor to monitor its effluent for acute and chronic WET using *Ceriodaphnia dubia* and Fathead Minnow for three months and then quarterly for the duration of the permit. The discharge has not shown any acute toxicity to either species and only chronic toxicity to *Ceriodaphnia dubia*. Based on demonstrated toxicity, the facility conducted two toxicity reduction evaluations (TREs) during the term of the permit. Effluent data for *Ceriodaphnia dubia* beginning August 2014 are considered representative since completion of the last TRE. All of the WET data collected under the term of the current permit are included in Attachment 7.

Reasonable Potential Analysis for Acute WET
The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the numeric interpretation of the narrative criterion for acute WET at 2-1.5-8(b)(1)(E)(ii) when effluent specific WET data demonstrates that:

(TUa effluent) x (B) x (effluent flow)/(Qad + effluent flow) > AC, where:

TUa effluent = maximum acute WET result
B = multiplying factor from 5-2-11.5(h)
effluent flow = effluent flow used to calculate WQBELs for individual pollutants
Qad = amount of receiving water available for dilution
AC = numeric interpretation of the narrative criterion for acute WET

For ArcelorMittal Burns Harbor the calculations are:

TUa effluent = <1.0 TUa (*Ceriodaphnia dubia* and Fathead Minnow)
B = 1.0 (based on 28 samples for *C. dubia* and a CV of 0.0)
effluent flow = 135 mgd
Qad = 0.0 mgd (an alternate mixing zone has not been approved for acute WET)
AC = 1.0 TUa (the applicable numeric interpretation of the narrative criterion for acute WET for the case where an alternate mixing zone for acute WET has not been approved)

(<1.0 TUa effluent) x (1.0) x (135 mgd)/(0.0 mgd + 135 mgd) = <1.0 TUa

It cannot be demonstrated that the calculated value is greater than 1.0 TUa, so there is no reasonable potential for acute WET.

Reasonable Potential Analysis for Chronic WET
The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the numeric interpretation of the narrative criterion for chronic WET at 2-1.5-8(b)(2)(A)(iv) when effluent specific WET data demonstrates that:

(TUc effluent) x (B) x (effluent flow)/(Qad + effluent flow) > CC, where:

TUc effluent = maximum chronic WET result
B = multiplying factor from 5-2-11.5(h)
effluent flow = effluent flow used to calculate WQBELs for individual pollutants
Qad = amount of receiving water available for dilution
CC = numeric interpretation of the narrative criterion for chronic WET

For ArcelorMittal Burns Harbor the calculations are:

TUc effluent = 2.0 TUc (*Ceriodaphnia dubia*)
B = 1.9 (based on 8 samples and a CV of 0.6)
effluent flow = 135 mgd
Qad = 3.5 mgd (25% of the Q7,10 (14 mgd))
CC = 1.0 TUc

(2.0 TUc) x (1.9) x (135 mgd)/(3.5 mgd + 135 mgd) = 3.7 TUc

Since the calculated value is greater than 1.0 TUc, there is reasonable potential for chronic WET.

List of Attachments

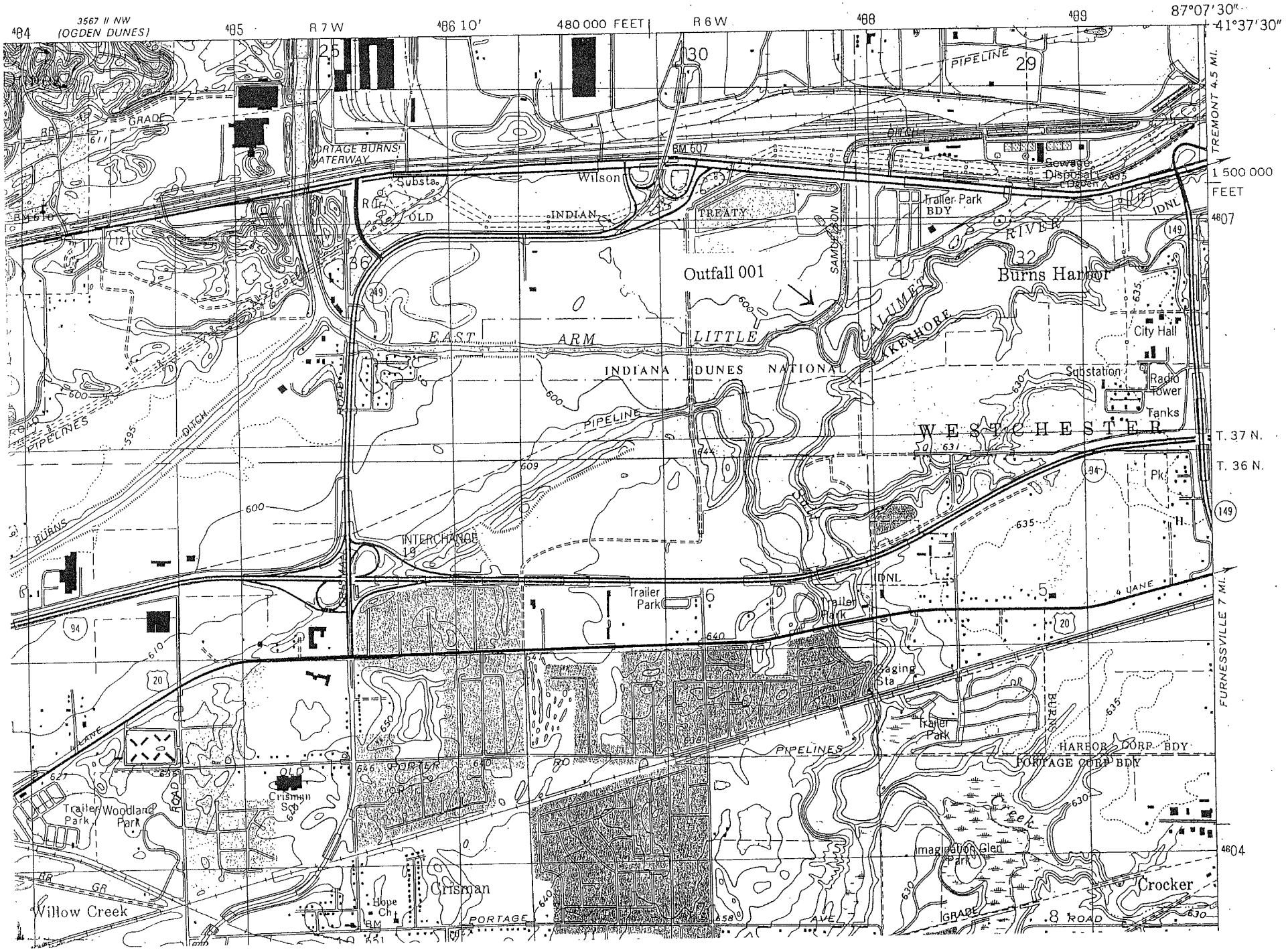
Attachment 1: Outfall 001 Flow Data
Attachment 2: Map of Outfall Location
Attachment 3: Calculation of Background Concentrations
Attachment 4: Calculation of Preliminary Effluent Limitations
Attachment 5: Effluent Data
Attachment 6: Reasonable Potential to Exceed Analysis
Attachment 7: Whole Effluent Toxicity Data

ATTACHMENT 1
ArcelorMittal Burns Harbor Monthly Average Flow

Month	Outfall 001 (mgd)
Mar-11	105.9
Apr-11	104.1
May-11	108.8
Jun-11	118.8
Jul-11	114
Aug-11	135.4
Sep-11	117.8
Oct-11	117.9
Nov-11	107.8
Dec-11	118.5
Jan-12	117.5
Feb-12	121.4
Mar-12	128.1
Apr-12	121.7
May-12	121.1
Jun-12	119.1
Jul-12	128.6
Aug-12	119.8
Sep-12	119.1
Oct-12	113.1
Nov-12	112.4
Dec-12	110.8
Jan-13	108.2
Feb-13	115.6
Mar-13	120.7
Apr-13	122.6
May-13	119.2
Jun-13	120.0
Jul-13	122.6
Aug-13	119.6
Sep-13	125.7
Oct-13	115.2
Nov-13	121.9
Dec-13	120.4
Jan-14	121.4
Feb-14	121.3
Mar-14	123.6
Apr-14	122.3
May-14	119.5
Jun-14	123.4
Jul-14	125.8
Aug-14	129.7
Sep-14	132.7
Oct-14	127.5
Nov-14	112.1
Dec-14	116.2
Jan-15	112
Feb-15	114.1
Mar-15	114.4
Apr-15	114.7
May-15	122.2
Jun-15	123.3
Jul-15	121.7
Aug-15	122.1
Sep-15	127.3
Oct-15	112.4
Maximum	
3-11 thru 10-15	**135.4**
Last 2 Years	**132.7**

ATTACHMENT 2

PORTAGE QUADRANGLE
INDIANA
7.5 MINUTE SERIES (TOPOGRAPHIC)



ATTACHMENT 3
Calculation of Background Concentrations
Data From Fixed Station LCR 39

Date	Total Cyanide (mg/l)	Adjusted Total Cyanide (mg/l)
1/5/2004	< 0.005	0.0025
2/23/2004	< 0.005	0.0025
3/15/2004	< 0.005	0.0025
4/12/2004	< 0.005	0.0025
5/17/2004	< 0.005	0.0025
6/2/2004	< 0.005	0.0025
7/6/2004	< 0.005	0.0025
8/9/2004	< 0.005	0.0025
9/1/2004	< 0.005	0.0025
10/4/2004	< 0.005	0.0025
11/3/2004	< 0.005	0.0025
12/15/2004	< 0.005	0.0025
1/3/2005	< 0.005	0.0025
2/2/2005	< 0.005	0.0025
3/28/2005	< 0.005	0.0025
4/11/2005	< 0.005	0.0025
5/9/2005	< 0.005	0.0025
6/13/2005	< 0.005	0.0025
7/11/2005	< 0.005	0.0025
8/3/2005	< 0.005	0.0025
9/12/2005	< 0.005	0.0025
10/11/2005	< 0.005	0.0025
11/15/2005	< 0.005	0.0025
12/19/2005	< 0.005	0.0025
1/30/2006	< 0.005	0.0025
3/13/2006	< 0.005	0.0025
4/5/2006	< 0.005	0.0025
5/15/2006	< 0.005	0.0025
Geomean		**0.0025**

ATTACHMENT 4
Calculation of Preliminary Effluent Limitations

12/21/2015
4:29 PM

Discharger Name:	ArcelorMittal Burns Harbor
Receiving Stream:	East Branch Little Calumet River

			Mixing Zone
Discharge Flow	=	135 mgd	
Q1,10 receiving stream (Outfall)	=	13 mgd	
Q7,10 receiving stream (Outfall)	=	14 mgd	25%
Q7,10 receiving stream (Industrial Water Supply)	=	mgd	25%
Harmonic Mean Flow (Outfall)	=	31 mgd	25%
Harmonic Mean Flow (Drinking Water Intake)	=	mgd	25%
Q90,10 receiving stream	=	mgd	25%
Dilution Factor (for acute mixing zone)	=		
Hardness (50th percentile)	=	mg/l	
Chloride (50th percentile)	=	mg/l	
Sulfate (50th percentile)	=	mg/l	
Stream pH (50th percentile)	=	s.u.	
Summer Stream Temperature (75th percentile)	=	C	
Summer Stream pH (75th percentile)	=	s.u.	
Winter Stream Temperature (75th percentile)	=	C	
Winter Stream pH (75th percentile)	=	s.u.	

Discharge-Induced Mixing (DIM)	No
Drinking Water Intake Downstream	No
Industrial Water Supply Downstream	No

Metals Translators
(dissolved to total recoverable)

	Acute	Chronic
Aluminum		
Antimony	1.000	1.000
Arsenic	1.000	1.000
Barium	1.000	1.000
Beryllium	1.000	1.000
Cadmium	#NUM!	#NUM!
Chromium III	0.316	0.860
Chromium VI	0.982	0.962
Cobalt	1.000	1.000
Copper	0.960	0.960
Iron		
Lead	#NUM!	#NUM!
Manganese	1.000	1.000
Mercury	0.85	0.85
Molybdenum	1.000	1.000
Nickel	0.998	0.997
Selenium		0.922
Silver	0.85	1.000
Strontium	1.000	1.000
Thallium	1.000	1.000
Tin	1.000	1.000
Titanium	1.000	1.000
Vanadium	1.000	1.000
Zinc	0.978	0.986

Source of Criteria [1]							Background	BCC	Add.	Samples/	CV	CAS		Indiana Water Quality Criteria for the Great Lakes System (ug/l)							Preliminary Effluent Limitations (calculated in accordance with 327 IAC 5-2-11.4 and 11.6)					
														A	B	C	D	E	F	G						
														Aquatic Life Criteria		Human Health Noncancer Criteria		Human Health Cancer Criteria		Wildlife Criteria					
A	B	C	D	E	F	G	(ug/l)			Month		Number	Parameters[2]	Acute (CMC)	Chronic (CCC)	Drinking (HNC-D)	Nondrinking (HNC-N)	Drinking (HCC-D)	Nondrinking (HCC-N)	(WC)	Concentration (ug/l)[3] Average	Maximum	Mass (lbs/day) Average	Maximum	Criteria Type	Basis
1	1						0			4	0.6	57125	Cyanide, Free	22	5.2						4.4	8.8	5	9.9	Tier I	CCC
													Whole Effluent Toxicity (WET)													
1													Acute (TUa) without Mixing Zone	1.0								1.0				
	1												Chronic (TUc)		1.0						1.0					

0 Number of Carcinogenic pollutants present in the effluent

[1] Source of Criteria
1) Indiana numeric water quality criterion; 327 IAC 2-1.5-8(b)(3), Table 8-1; 327 IAC 2-1.5-8(b)(5); 327 IAC 2-1.5-8(b)(6), Table 8-3; 327 IAC 2-1.5-8(b)(7), Table 8-4; 327 IAC 2-1.5-8(c)(5); and 327 IAC 2-1.5-8(f).
2) Additional Criteria for Lake Michigan, 327 IAC 2-1.5-8(j), Table 8-9. These criteria are not aquatic life criteria, however, since they are treated as 4-day average criteria, they are included in the chronic aquatic criteria column.
3) Tier I criterion calculated using the methodology in 327 IAC 2-1.5-11, 327 IAC 2-1.5-14, and 327 IAC 2-1.5-15.
4) Tier II value calculated using the methodology in 327 IAC 2-1.5-12, 327 IAC 2-1.5-14, and 327 IAC 2-1.5-15.
5) Estimated ambient screening value (EASV) calculated in accordance with 327 IAC 5-2-11.5(b)(3)(A)(i).

[2] The aquatic criteria for the metals are dissolved criteria. The human health criteria for the metals are total recoverable. The aquatic criteria for cyanide are free cyanide. The human health criteria for cyanide are total cyanide.

[3] The preliminary effluent limitations (PELs) for the metals are total recoverable (with the exception of Chromium (VI) which is dissolved).

[4] The above-noted substances are probable or known human carcinogens. If an effluent contains more than one of these substances, the additivity provisions contained in 327 IAC 5-2-11.4(a)(4)(A) shall be applied. This spreadsheet automatically applies these additivity provisions by reducing each human health wasteload allocation for a carcinogen by an equal amount. This allocation between carcinogens can be altered on a case-specific basis.

[5] The above-noted substance is a chlorinated dibenzo-p-dioxin. If an effluent contains more than one chlorinated dibenzo-p-dioxin or chlorinated dibenzofuran, the additivity provisions contained in 327 IAC 5-2-11.4(a)(4)(C) shall be applied.

[6] The above-noted substances are bioaccumulative chemicals of concern (BCCs). Dilution is not allowed for new discharges of BCCs to streams and for any discharges of BCCs to the open waters of Lake Michigan. Dilution is not allowed for existing discharges of BCCs to streams after January 1, 2004 unless the discharge meets an exception. To not allow for dilution for BCCs, place a "Y" in the "BCC" column.

[7] Limits based on estimated ambient screening values (as indicated by EASV) ARE NOT to be used as water quality-based effluent limitations. These are solely to be used as preliminary effluent limitations.

[8] The above noted substances have a criterion that is a function of an ambient downstream water quality characteristic.

[9] The ambient downstream water quality characteristic must be entered for both chloride and sulfate and it cannot exceed the applicable chronic aquatic life criterion for the substance.
Preliminary effluent limitations (PELs) for chloride and sulfate shall not be used to establish water quality-based effluent limitations that do not ensure the water quality criteria for both substances are achieved in the receiving waterbody.

Last revised: 25 July 2013

ATTACHMENT 5
Effluent Data for ArcelorMittal Burns Harbor Outfall 001

	Free Cyanide (mg/l)		
Date	**Daily**	**Adjusted Daily**	**Monthly Average**
5/5/2015	0.0537	0.0537	
5/6/2015	0.031	0.031	
5/13/2015	<0.002	0.002	
5/14/2015	<0.002	0.002	
5/18/2015	0.0096	0.0096	
5/19/2015	0.0107	0.0107	0.0182
7/14/2015	<0.002	0.002	
7/15/2015	<0.002	0.002	
7/21/2015	<0.002	0.002	
7/22/2015	<0.002	0.002	
7/28/2015	<0.002	0.002	
7/29/2015	<0.002	0.002	0.002
8/4/2015	<0.002	0.002	
8/5/2015	<0.002	0.002	0.002
Outlier Analysis	**mean**	**0.00893**	
	std	**0.0151**	
	mean + 3std	**0.0543**	
Reasonable Potential Analysis	**n**	**14**	**3**
	CV	**1.7**	**--**
	max	**0.0537**	**0.0182**

ATTACHMENT 6

Reasonable Potential Statistical Procedure

12/21/2015
4:33 PM

(calculated in accordance with 327 IAC 5-2-11.5)		Monthly Average Determination							Daily Maximum Determination						
Parameters	WQBELs Required*	Maximum Monthly Average (ug/l)	Number of Monthly Averages	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?	Maximum Daily Sample (ug/l)	Number of Daily Samples	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?
Cyanide, Free	Yes I	18.2	3	0.6	3.0	55	4.4	Yes	53.7	14	1.7	2.5	130	8.8	Yes

ATTACHMENT 7
ArcelorMIttal Burns Harbor Outfall 001
Whole Effluent Toxicity Data*

Species: ***Ceriodaphnia dubia*** +

Date	LC50 (%)	Acute (TU_a)	Adjusted Acute (TU_a)	NOEC (%)	IC25 (%)	Chronic (TU_c)	Adjusted Chronic (TU_c)
May-11	>100	<1.0	1.0	50	79.7	1.3	
Jun-11	>100	<1.0	1.0	50	65.1	1.5	
Jul-11	>100	<1.0	1.0	100	90.5	1.0	
Jul-11	>100	<1.0	1.0	50	60.8	1.6	
Aug-11	>100	<1.0	1.0	100	>100	<1.0	
Sep-11	>100	<1.0	1.0	50	63.5	1.6	
Jul-12	>100	<1.0	1.0	100	>100	<1.0	
Aug-12	>100	<1.0	1.0	100	>100	<1.0	
Sep-12	>100	<1.0	1.0	100	>100	<1.0	
Nov-12	>100	<1.0	1.0	100	>100	<1.0	
Feb-13	>100	<1.0	1.0	100	>100	<1.0	
Jun-13	>100	<1.0	1.0	50	85.2	1.2	
Jul-13	>100	<1.0	1.0	25	63.6	1.6	
Aug-13	>100	<1.0	1.0	100	>100	<1.0	
Sep-13	>100	<1.0	1.0	50	84.4	1.2	
Nov-13	>100	<1.0	1.0	12.5	39	2.6	
Dec-13	>100	<1.0	1.0	25	95.7	1.0	
Feb-14	>100	<1.0	1.0	100	>100	<1.0	
May-14	>100	<1.0	1.0	100	>100	<1.0	
Jun-14	>100	<1.0	1.0	50	>100	<1.0	
Aug-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Sep-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Oct-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Mar-15	>100	<1.0	1.0	100	>100	<1.0	1.0
Jun-15	>100	<1.0	1.0	25	48.96	2.0	2.0
Jul-15	>100	<1.0	1.0	100	>100	<1.0	1.0
Sep-15	>100	<1.0	1.0	100	84.78	1.0	1.0
Oct-15	>100	<1.0	1.0	100	>100	<1.0	1.0
n			**28**				**8**
CV			**0.0**				
Maximum			**1.0**				**2.0**

Species: **Fathead Minnow**

Date	LC50 (%)	Acute (TU_a)	Adjusted Acute (TU_a)	NOEC (%)	IC25 (%)	Chronic (TU_c)	Adjusted Chronic (TU_c)
May-11	>100	<1.0	1.0	100	>100	<1.0	1.0
Jun-11	>100	<1.0	1.0	100	>100	<1.0	1.0
Jul-11	>100	<1.0	1.0	100	>100	<1.0	1.0
Aug-11	>100	<1.0	1.0	100	>100	<1.0	1.0
Sep-11	>100	<1.0	1.0	100	>100	<1.0	1.0
Jul-12	>100	<1.0	1.0	100	>100	<1.0	1.0
Aug-12	>100	<1.0	1.0	100	>100	<1.0	1.0
Sep-12	>100	<1.0	1.0	100	>100	<1.0	1.0
Nov-12	>100	<1.0	1.0	100	>100	<1.0	1.0
Feb-13	>100	<1.0	1.0	100	>100	<1.0	1.0
Jun-13	>100	<1.0	1.0	100	>100	<1.0	1.0
Aug-13	>100	<1.0	1.0	100	>100	<1.0	1.0
Nov-13	>100	<1.0	1.0	100	>100	<1.0	1.0
Feb-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Jun-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Aug-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Oct-14	>100	<1.0	1.0	100	>100	<1.0	1.0
Mar-15	>100	<1.0	1.0	100	>100	<1.0	1.0
Jun-15	>100	<1.0	1.0	100	>100	<1.0	1.0
Sep-15	>100	<1.0	1.0	100	>100	<1.0	1.0
n			**20**				**20**
CV			**0.0**				**0.0**
Maximum			**1.0**				**1.0**

* The Permit issued February 7, 2011 required monthly sampling for three months and then quarterly monitoring for the duration of the permit. The facility conducted two toxicity reduction evaluations (TREs) during the term of the permit. Chronic data for *C. dubia* beginning August 2014 are considered representative data since completion of the last TRE.

+ The data for this species were used in the reasonable potential analysis.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER QUALITY – NPDES PERMIT SECTION

NOTICE OF DRAFT NPDES RENEWAL and ALTERNATE THERMAL EFFLUENT LIMITS

PUBLIC NOTICE NO. 2016- 2C – RD
DATE OF NOTICE: FEBRUARY 18, 2016
DATE RESPONSE DUE: MARCH 18, 2016

MAJOR – RENEWAL & ATEL

ARCELORMITTAL – BURNS HARBOR, Permit No. IN0000175, PORTER COUNTY, 250 W. US HWY 12, Burns Harbor, IN. The permittee submitted this renewal with a request for an Alternate Thermal Effluent Limitation (ATEL) renewal at Outfalls 001 & 002. The ATEL is allowed by Clean Water Act Section 316(a) to two monitoring points located on the East Branch of the Little Calumet River via Samuelson Ditch, and Burns Waterway Harbor. ArcelorMittal owns and operates one of the largest fully integrated steel mills in North America, with the capacity to produce approximately 5 million tons of raw steel per year. Intermediate and final products include coke, sinter, iron, raw steel, cast steel, plate, hot strip, cold rolled strip, and coated steels. The facility withdraws water from Lake Michigan with one (1) Outfall actively discharging an average of 135 MGD to the East Branch of the Little Calumet River, one (1) Outfall actively discharging an average of 221 MGD to Burns Waterway Harbor, and one (1) Outfall actively discharging an average of 1.4 MGD to Lake Michigan. **Alternate Thermal Effluent Limitations (ATEL):** As part of this permit renewal, IDEM proposes to continue to allow Alternate Thermal Effluent Limitations for Outfalls 001 and 002 in accordance with Section 316(a) of the Clean Water Act and 327 IAC 5-7. Compliance with the temperature limitations is determined at each outfall. In the absence of approved ATEL, the water quality based effluent limits would apply. Based on preliminary staff review and application of pertinent standards & regulations, IDEM proposes to issue this Permit renewal which imposes certain effluent limitations, monitoring requirements, and special conditions. The permit term is for no more than five years.

Water Quality Based Effluent Limitation Table

Month	Temp (^oF)
Jan	50
Feb	50
Mar	60
Apr	70
May	80
Jun	90
Jul	90
Aug	90
Sep	90
Oct	78
Nov	70
Dec	57

Alternate Thermal Effluent Limitations Table for Outfalls 001 and 002
Maximum Water Temperatures (^oF)

Month	Daily Maximum (001)	Daily Maximum (002)
January	60	55
February	60	57
March	65	63
April	71	69
May	81	77
June	86	82
July	86	88
August	86	90
September	85	88
October	80	81
November	75	72
December	65	63

Permit Manager: rhamblin@idem.in.gov; 317/232-8696 or 800/ 451-6027 x 28696 (Indiana only). Published in the Vidette Times.
Accessible Documents: All documents are on file at IDEM/OWQ, Industrial Permits Section, (Rm 1255, mail code 65/42PS) 100 N Senate Av, Indpls, IN from 9 - 4, M - F, (excluding state holidays- copies 10¢ per page). The Draft Permit is on file as follows: Health Department, Gary Public Library/main branch, IDEM Northwest Regional Office & the IDEM website: http://in.gov/idem/cleanwater/2480.htm.
Comments/Public Hearing: IDEM is required, by Rule 327 IAC 5-3.5-5, to publish this Notice & solicit public comment or requests for Public Hearing. Only written correspondence is accepted (direct, hand-delivered, or Email) for consideration in the Final determination to issue a permit. Please note: direct your correspondence to the Permit Manager. All written correspondence must be postmarked no later than the Response Due date of this Notice. Notices of subsequent action will ONLY be sent to persons providing their contact address or Email & cannot be made to persons who fail to request such notifications. **Public Hearing (PH) Determination:** IDEM will determine if a Public Hearing is needed based on written comments/requests received,. All PH requests must include the following: name & contact information (address, phone, E-mail) of the person making the request & their interest; persons represented by the person making the request; the reason for the request; and the issues proposed for consideration at the Hearing. For your rights & responsibilities see: Public Participation: http://www.in.gov/idem/5474.htm; **Citizen Guide:** http://www.in.gov/idem/5903.htm. Please tell others you think would be interested in this matter.