Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

VIA ELECTRONIC MAIL August 25, 2016

Mr. Kevin Doyle, Environmental Manager
ArcelorMittal Indiana Harbor LLC
3210 Watling Street
East Chicago, IN 46312

Dear Mr. Doyle:

Re: Final Modification: Permit No. IN0000205
ArcelorMittal Indiana Harbor LLC-
Indiana Harbor West
East Chicago, IN - Lake County

Your request for modification of the above-referenced discharge permit has been processed in accordance with Section 402 and 405 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et seq.), and IDEM's permitting authority under IC 13-15.

The enclosed Pages 1, 5-7a, 9-11a, 57, and 78(a)-78(d) of 78(d) are intended to replace the corresponding pages of your existing NPDES Permit No. IN0000205. An accompanying Fact Sheet itemizes and explains the rationale for the revisions. All discharges from the referenced facility shall be consistent with the terms and conditions of this permit, as modified.

Pursuant to IC 4-21.5-3-5(f), the determination of modification in this letter becomes effective fifteen (15) days after it has been served; however, pursuant to IC 4-21.5-3-2(e), if it is served by mail it becomes effective eighteen (18) days after issued. It should also be noted that any appeal must be filed under procedures outlined in IC 13 15-6, IC 4 21.5, and the enclosed Public Notice. The appeal must be initiated by filing a petition for administrative review with the Office of Environmental Adjudication (OEA) within fifteen (15) days of the emailing of an electronic copy of this letter or within eighteen (18) days of the mailing of this letter by filing at the following address:

Office of Environmental Adjudication
Indiana Government Center North
100 North Senate Avenue, Room 501
Indianapolis, IN 46204

Please send a copy of any such appeal to me at the IDEM, Office of Water Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251. Any appeal request must be filed in accordance with IC 4-21.5-3-7, IC 13-15-7, and the enclosed Public Notice. The appeal request must include facts demonstrating that the party requesting appeal is the applicant, a person aggrieved or adversely affected by this modification or otherwise entitled to review by law. Pursuant to IC 13-15-7-3, the permit shall remain in force pending a decision on any appeal that has been timely requested under the provisions of IC 4-21.5 and IC 13-15-7.

Please note that after December 31, 2016, IDEM will no longer accept paper DMRs or MMR forms. Periodic compliance sampling reports will need to be submitted using NetDMR after that date. If you are not already doing so, IDEM recommends that you enroll in NetDMR as soon as possible.

If you have questions concerning this modification, please contact Nikki Gardner at 317/232-8707 or ngardner@idem.in.gov. Questions concerning appeal procedures should be directed to the Office of Environmental Adjudication at 317/232-8591.

Sincerely,

Paul Higginbotham
Deputy Assistant Commissioner
Office of Water Quality

Enclosure

cc: Lake County Health Department
Chief, Permit Section, U.S. EPA Region V
Simonne Benoit, ArcelorMittal
Doug Bley, ArcelorMittal

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

AMENDED AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Act"), and IDEM's permitting authority under IC 13-15,

ARCELORMITTAL INDIANA HARBOR LLC – INDIANA HARBOR WEST

is authorized to discharge from the steel mill that is located at 3001 Dickey Road, East Chicago, Indiana, to receiving waters named Indiana Harbor Ship Canal, Indiana Harbor, and the Intake Channel for the Nos. 2, 3 and 4 water intakes in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, IV, and V hereof.

The permit, as issued on October 26, 2011, and subsequently modified on December 1, 2014, is hereby amended, to incorporate streamlined mercury variances at Outfalls 009 and 010. The amended provisions shall become effective September 1, 2016. All terms and conditions of the permit not modified at this time remain in effect. Further, any existing condition or term affected by the amendments will remain in effect until the amended provisions become effective. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

This permit and the authorization to discharge, as amended, shall expire at midnight November 30, 2016. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued August 25, 2016, for the Indiana Department of Environmental Management.

Paul Higginbotham
Deputy Assistant Commissioner
Office of Water Quality

2. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 009. The discharge is limited to storm water, ground water from basement sumps, and non-contact cooling wastewater from the powerhouse area as well as treated blast furnace and sinter plant blowdown via Internal Outfall 509. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Indiana Harbor Ship Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS[1][2][3]

Table 1

	Quantity or Loading			Quality or Concentration			Monitoring	Requirements
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	-------	-------	-----	1 X Weekly	24 Hour Total
TSS	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	24-Hr. Comp.
O+G	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	Grab
TRC[4][13]	5.5	13[6]	lbs/day	0.012[5]	0.028[6]	mg/l	5 X Weekly[7]	Grab
Ammonia, as N[14]	425	1000	lbs/day	Report	Report	mg/l	1 X Weekly[15]	24-Hr. Comp.
Phenols (4AAP)[14]	Report	11	lbs/day	Report	Report	mg/l	1 X Weekly[15]	Grab
Zinc[8]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Lead[8]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Mercury[8][9][10]								
WQBELs	0.00060	0.0015	lbs/day	1.3	3.2	ng/l	6 X Yearly	Grab
Interim Discharge Limit [17]	----	----	----	1.9[16]	Report	ng/l	6 X Yearly	Grab
Temperature[12]								
Intake	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Outfall	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Whole Effluent Toxicity Testing[11]								

Table 2

	Quality or Concentration			Monitoring	Requirements
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the Narrative Water Quality Standards.

[2] In the event that changes are to be made in the use of water treatment additives, including dosage rates beyond the previously approved estimated maximum dosage rates, or changes that could significantly change the nature of, or increase the discharge concentration of the additive to Outfall 009, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives 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.

[3] The Storm Water Monitoring and Non Numeric Effluent Limits and the Storm Water Pollution Prevention Plan (SWP3) requirements can be found in Part I.D. and I.E of this permit

[4] Case-Specific LOD/LOQ

The permittee may determine a case-specific LOD or LOQ using the analytical method specified below, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	Test Method	LOD	LOQ
Chlorine	4500-Cl-D,E or 4500-Cl-G	0.02 mg/l	0.06 mg/l

[5] The monthly average water quality based effluent limit (WQBEL) for total residual chlorine is less than the limit of quantitation (LOQ) as specified below. 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.

[6] The daily maximum WQBEL for chlorine is greater than or equal to the LOD but less than the LOQ 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 27.7 lbs/day.

[7] Monitoring for TRC shall be performed, at a minimum, during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

[8] The permittee shall measure and report the identified metals as total recoverable metals.

[9] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[10] The permittee applied for, and received, a variance from the water quality criterion used to establish the referenced mercury WQBEL under 327 IAC 5-3.5. For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effuent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

[11] The permittee shall initiate a biomonitoring program for Outfall 009 using the procedures contained under Part I.H. of this permit.

[12] See Part III of this permit for additional requirements.

[13] See Part I.G for the Pollutant Minimization Program requirements.

[14] Ammonia (as N) and Phenols (4AAP) shall be reported on a net basis. For the purpose of this permit, net values are to be calculated by subtracting the measured intake values from the measured effluent values. The intake water shall be sampled for ammonia and phenols at the same frequency and sample type as the discharge waters. Samples shall be taken at a point representative of the intake prior to any contamination of the influent by recycled wastewater. The intake water shall be monitored at pumping stations 1 and 2.

[15] Sampling for Ammonia (as N) and Phenols (4AAP) shall occur at the monitoring frequencies specified in the permit on the same day at Outfalls 009, 010, 011, and 509.

[16] The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

[17] See Part V of the permit for the Pollutant Minimization Program Plan (PMPP) requirements.

4. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 010. The discharge is limited to storm water, ground water from basement sumps, and non-contact cooling wastewater from the blast furnace area, sinter plant area, powerhouse area, and boiler house as well as emergency overflow from Outfall 009. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Indiana Harbor Ship Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS[1][2][12]

Table 1

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	-------	-------	-----	1 X Weekly	24 Hour Total
TSS	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	24-Hr. Comp.
O+G	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	Grab
TRC[3][11]	3.7	8.6[5]	lbs/day	0.012[4]	0.028[5]	mg/l	5 X Weekly[6]	Grab
Ammonia, as N[13]	100	300	lbs/day	Report	Report	mg/l	1 X Weekly[14]	24-Hr. Comp.
Phenols (4AAP)[13]	Report	5	lbs/day	Report	Report	mg/l	1 X Weekly[14]	Grab
Zinc[7]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Lead[7]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Mercury[7][8][9]								
WQBELs	0.00040	0.00098	lbs/day	1.3	3.2	ng/l	6 X Yearly	Grab
Interim Discharge Limit [16]	----	----	----	1.6[15]	Report	ng/l	6 X Yearly	Grab
Temperature[10]								
Intake	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Outfall	-------	--------	------	Report	Report	°F	2 X Weekly	Grab

Table 2

	Quality or Concentration			Monitoring Requirements	
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the Narrative Water Quality Standards.

[2] In the event that changes are to be made in the use of water treatment additives, including dosage rates beyond the previously approved estimated maximum dosage rates, or changes that could significantly change the nature of, or increase the discharge concentration of the additive to Outfall 010, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives 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.

[3] Case-Specific LOD/LOQ
The permittee may determine a case-specific LOD or LOQ using the analytical method specified below, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	Test Method	LOD	LOQ
Chlorine	4500-Cl-D,E or 4500-Cl-G	0.02 mg/l	0.06 mg/l

[4] The monthly average water quality based effluent limit (WQBEL) for total residual chlorine is less than the limit of quantitation (LOQ) as specified below. 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.

[5] The daily maximum WQBEL for chlorine is greater than or equal to the LOD but less than the LOQ 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 18.3 lbs/day.

[6] Monitoring for TRC shall be performed, at a minimum, during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

[7] The permittee shall measure and report the identified metals as total recoverable metals.

[8] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is

required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[9] The permittee applied for, and received, a variance from the water quality criterion used to establish the referenced mercury WQBEL under 327 IAC 5-3.5. For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effuent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

[10] See Part III of this permit for additional requirements.

[11] See Part I.G for the Pollutant Minimization Program requirements.

[12] The Storm Water Monitoring and Non Numeric Effluent Limits and the Storm Water Pollution Prevention Plan (SWP3) requirements can be found in Part I.D. and I.E of this permit

[13] Ammonia (as N) and Phenols (4AAP) shall be reported on a net basis. For the purpose of this permit, net values are to be calculated by subtracting the measured intake values from the measured effluent values. The intake water shall be sampled for ammonia and phenols at the same frequency and sample type as the discharge waters. Samples shall be taken at points representative of the intake prior to any contamination of the influent by recycled wastewater. The intake water shall be monitored at pumping stations 1 and 2.

[14] Sampling for Ammonia (as N) and Phenols (4AAP) shall occur at the monitoring frequencies specified in the permit on the same day at Outfalls 009, 010, 011, and 509.

[15] The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

[16] See Part V of the permit for the Pollutant Minimization Program Plan (PMPP) requirements.

6. to reduce the mercury monitoring frequency if twelve (12) months (six (6) consecutive samples) of monitoring data at Outfall 012 demonstrate there is not a reasonable potential for mercury to exceed Indiana water quality standards; or to include effluent limitations for mercury, if mercury is found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the mercury water quality criterion.

7. to specify the use of a different analytical method if a more sensitive analytical method has been specified in or approved under 40 CFR 136 or approved by the Commissioner to monitor for the presence and amount in the effluent of the pollutant for which the WQBEL is established. The permit shall specify, in accordance with 327 IAC 5 2 11.6(h)(2)(B), the LOD and LOQ that can be achieved by use of the specified analytical method.

8. to review the monitoring requirements pursuant to 40 CFR 122.44(a)(2). The permittee may request, in writing, a review of categorical monitoring requirements. Upon review by IDEM, the permit may be modified, to reduce or delete the monitoring requirements.

9. to modify the 301(g) effluent limitations for ammonia-N and total phenols. At any time during the term of this NPDES permit, the permittee may request modification of Section 301(g) effluent limits. Such modified limits may be applied at Outfalls 509, 009, 010 and 011, or any combination thereof.

10. to modify the monthly average requirements for Internal Outfalls 701 and 702 included in this permit in response to any policy change made by this agency, with EPA concurrence, regarding compliance determinations for monthly average limits.

11. to include revised Streamlined Mercury Variances (SMV) and/or Pollutant Minimization Program Plan (PMPP) requirements.

Part V
Streamlined Mercury Variance (SMV)

Introduction

The permittee submitted an application for streamlined mercury variances (SMV) on April 21, 2016 in accordance with the provisions of 327 IAC 5-3.5. A SMV establishes a streamlined process for obtaining a variance from a water quality criterion used to establish a WQBEL for mercury in a NPDES permit. Based on a review of the SMV application, IDEM has determined the application to be complete as outlined in 327 IAC 5-3.5-4(e). Therefore, SMV are being incorporated into the NPDES permit in accordance with 327 IAC 5-3.5-6 for Outfalls 009 and 010.

Term of SMV

The SMV and the interim discharge limits included in the Discharge Limitations Tables in Parts I.A.2 and I.A.4., will remain in effect until the NPDES permit expires under IC 13-14-8-9 (amended under SEA 620, May 2005). Pursuant to IC 13-14-8-9(d), when the NPDES permit is extended under IC 13-15-3-6 (administratively extended), the SMV will remain in effect as long as the NPDES permit requirements affected by the SMV are in effect.

Annual Reports

The annual report is a condition of the Pollutant Minimization Program Plan (PMPP) requirements of 327 IAC 5-3.5-9(a)(8). The annual report must describe the permittee's progress toward fulfilling each PMPP requirement, the results of all mercury monitoring within the previous year, and the steps taken to implement the planned activities outlined under the PMPP. The annual report may also include documentation of chemical and equipment replacements, staff education programs, and other initiatives regarding mercury awareness or reductions. The complete inventory and complete evaluation required by the PMPP may be submitted as part of the annual report.

The permittee will submit the annual reports to IDEM on the anniversary of the effective date of this NPDES permit renewal, as indicated on Page 1 of this permit. Annual Reports should be submitted to the Office of Water Quality, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, Indiana 46204 2251.

SMV Renewal

As authorized under 327 IAC 5-3.5-7(a)(1), the permittee may apply for the renewal of an SMV at any time within 180 days prior to the expiration of the

NPDES permit. In accordance with 327 IAC 5-3.5-7(c), an application for renewal of the SMV must contain the following:

- All information required for an initial SMV application under 327 IAC 5-3.5-4, including revisions to the PMPP, if applicable.
- A report on implementation of each provision of the PMPP.
- An analysis of the mercury concentrations determined through sampling at the facility's locations that have mercury monitoring requirements in the NPDES permit for the two (2) year period prior to the SMV renewal application.
- A proposed alternative mercury discharge limit, if appropriate, to be evaluated by the department according to 327 IAC 5-3.5-8(b) based on the most recent two (2) years of representative sampling information from the facility.

Renewal of the SMV is subject to a demonstration showing that PMPP implementation has achieved progress toward the goal of reducing mercury from the discharge.

Pollutant Minimization Program Plan (PMPP)

The PMPP is a requirement of the SMV application and is defined in 327 IAC 5-3.5-3(4) as the plan for development and implementation of Pollutant Minimization Program (PMP). The PMPP is defined in 327 IAC 5-3.5-3(3) as the program developed by an SMV applicant to identify and minimize the discharge of mercury into the environment. PMPP requirements (including the enforceable parts of the PMPP) are outlined in 327 IAC 5-3.5-9. In accordance with 327 IAC 5-3.5-6, the permittee's PMPP is hereby incorporated within this permit below:

ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West
Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Complete Inventory/Identification	Update complete inventory/identification of chemicals, materials, equipment and storage areas containing mercury	Submittal of complete inventory/identification to IDEM	6 months: Review of MSDS and other documentation for existing chemicals, materials, equipment and storage areas. Update of inventory for all primary Operations.
			7 months: Update of inventory for all Finishing operations 8 months: Update of inventory for all Utilities operations 9 months: Update of inventory for all remaining operations.
Review Policies and Procedures for chemical, material, and equipment purchasing	Review MSDS and other documentation from vendors or manufacturers	Ensure current policies and procedures are adequate to identify and minimize purchase of chemicals, materials and equipment containing mercury	Currently implemented
	Minimize the purchase of chemicals, materials and equipment containing mercury		
Employee Training	Education and increased awareness	Evaluation of current employee Environmental and Health and Safety program	Complete evaluation within 6 months
		If necessary, revise current training program to include relevant mercury identification, handling, recycling and disposal information	Implement revised program within 7 months
Facility-wide Mercury Disposal and Recycling Program	Ensure materials, chemicals and equipment containing mercury are properly stored and recycled or disposed offsite	Track and document estimated amount of mercury disposed per applicable mercury disposal and recycling regulations	Currently implemented
Spill Containment Procedures	Minimize possibility of accidental spills and releases	Adequate training of employees on good housekeeping practices that reduce the possibility of accidental spills and releases (see "Staff Training" Activity)	Currently implemented
Maintenance and Cleaning Practices	Ensure proper and safe handling of mercury-containing materials, chemicals and equipment during maintenance and cleaning activities	Ensure procedures to minimize the release of mercury from chemicals, materials and equipment containing mercury are implemented during maintenance and cleaning activities	Currently implemented

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ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West
Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Characterization of Sources to Outfalls	Evaluate levels of mercury preset in intake water to plant	Data collected as part of the mercury QAPP activities required by the NPDES permit demonstrate the source of mercury in discharges is mercury present in intake water from the Indiana Harbor Ship Canal.	Complete. Data collected in 2012 and 2014 and reported in the Final Plan for Compliance Implementation Report submitted to IDEM in March 2015.
	Evaluate levels of mercury preset in internal Outfalls	Conduct periodic monitoring of internal Outfalls for comparison to final Outfall data	Collect and analyze samples 2/year at Outfalls 509, 702 and 701. Collect samples concurrent to (same day as) collection of samples at Outfalls 009 and 011. Data will be included in annual reports submitted at the end of each calendar year.
Alternatives for Mercury Reduction	Evaluation of alternatives for mercury-bearing chemicals, materials and equipment	Investigate replacement and/or reduction options for in-service chemicals, materials and equipment containing mercury	Schedule to be developed based on the results of the various source characterization activities

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National Pollutant Discharge Elimination System
Fact Sheet for

ArcelorMittal USA LLC-Indiana Harbor West

Draft modification: July 2016
Final modification: August 2016

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 USA LLC-Indiana Harbor West 3001 Dickey Road East Chicago, IN 46312 Lake County
Existing Permit Information:	Permit Number: IN0000205 Expiration Date: November 30, 2016
Facility Contact:	Mr. Kevin Doyle, Environmental Manager (219) 399-1686 Kevin.Doyle@arcelormittal.com
Facility Location:	Same as above
Receiving Stream:	Indiana Harbor Ship Canal
GLI/Non-GLI:	GLI
Proposed Permit Action:	Modify to apply SMV at Outfalls 009 and 010
Date Application Received:	April 21, 2016
Source Category	NPDES Major– Industrial
Permit Writer:	Nikki Gardner, Section Chief (317) 232-8707 or ngardner@idem.in.gov

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1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a request from ArcelorMittal Indiana Harbor LLC – Indiana Harbor West on April 21, 2016 to modify National Pollutant Discharge Elimination System (NPDES) Permit IN0000205. The current five year permit was issued with an effective date of December 1, 2011, and was modified December 1, 2014, in accordance with 327 IAC 5-2-6(a). The expiration date remains November 30, 2016.

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 Permit modification Fact Sheet identifies the basis for this modification to the permit and the modified pages of the permit issued on December 1, 2014.

2.0 FACILITY DESCRIPTION

2.1 General

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West is classified under Standard Industrial Classification (SIC) Code 3312 – Steel Mill. The permittee is a large integrated steel mill. Intermediate and final products include sinter, iron, raw steel, cast steel, hot strip, cold rolled strip, and hot dip galvanized strip.

The wastewater treatment system has an average discharge of approximately 127 MGD and has been given a Class D industrial wastewater treatment plant classification in accordance with 327 IAC 5-22. A map showing the location of the facility has been included as Figure 1.

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Figure 1: Facility Location

3001 Dickey Road
East Chicago, IN 46312
Lake County

2.2 Affected Outfall Locations

Outfall 009:	Latitude:	41º 39' 40"	Longitude:	-87º 27' 10"
Outfall 010:	Latitude:	41º 39' 40"	Longitude:	-87º 27' 05"

3.0 PERMIT MODIFICATION

3.1 Modification Request

The NPDES permit for IHW (NPDES Permit No. IN0000205, effective December 1, 2011) contains a 54-month compliance schedule to achieve water quality based effluent limits (WQBELs) for mercury at Outfalls 009 and 010. The final compliance date is June 1, 2016.

The compliance schedule required the submittal of a Quality Assurance Project Plan (QAPP) which described the methods selected for identifying the sources of mercury. This QAPP was submitted to IDEM in March 2012. The NPDES permit also required progress reports, a Final Plan for Compliance (FPC), and a FPC Implementation Report containing the results of the investigations and actions implemented to meet final effluent limits for mercury at the respective outfalls. The FPC Implementation Report was submitted to IDEM in March 2015.

ArcelorMittal believes that the data collected and investigations completed as part of the QAPP demonstrate that the source of mercury is intake water from the Indiana Harbor Ship Canal. Therefore, ArcelorMittal is requesting IDEM review the SMV application for Indiana Harbor West (IHW) in a timely manner to facilitate issuance of the requested permit modification in advance of or as close to June 1, 2016 as is possible. As required by 327 IAC 5-3.5, the application includes the following:

Completed SMV Application Form (State Form 52111)
Interim Discharge Limits for Mercury (calculated using procedures at 327 IAC 5-3.5-8)
Pollutant Minimization Program Plan (PMPP)
Documentation of Public Notice Activities
Completed Potentially Affected Parties Form (State Form 49456)

The PMPP was placed on public notice in the March 7, 2016 edition of the Times of Northwest Indiana. The public comment period was March 7 to April 7, 2016. No comments were received during the public comment period.

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Outfall 009 Data:

PART FOUR - OUTFALL 009					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/28/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/28/14 (DUP)	1.240		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	0.802		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	0.946		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.760		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.430		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.502		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	1.100		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15	2.470		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.540	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15 (DUP)	0.611		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	0.579		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

Outfall 010 Data:

PART FOUR - OUTFALL 010					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/24/14	0.803		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.653		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.010		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.510		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.450		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	1.590		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.390		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.607		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	0.555		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	0.896		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.796		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	0.621		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	0.644		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

3.2 IDEM's Proposed Modification

IDEM's review of the data submitted for these two outfalls supports application of SMV and interim discharge limitations of 1.9 ng/l (Outfall 009) and 1.6 ng/l (Outfall 010) are proposed.

(a) For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effluent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

(b) Mercury shall be measured and reported as total recoverable metals.

(c) Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

(d) The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

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(e) As part of the SMV, the permittee is required to develop a Pollutant Minimization Program (PMP) to identify and minimize the discharge of mercury from Outfalls 009 and 010 based on the rule requirements found at 327 IAC 5-3.5 (Streamlined Mercury Variance Rule). The Pollutant Minimization Program Plan (PMPP), which is the plan for development and implementation of the PMP, has been incorporated as Part V of the permit.

(f) A reopener clause has been included in the permit which states "This permit may be modified, or, alternately, revoked and reissued after public notice and opportunity for hearing, to include revised Streamlined Mercury Variance (SMV) and/or Pollutant Minimization Program Plan (PMPP) requirements."

3.3 Antibacksliding

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.

3.4 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.

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.

This permit includes new permit limitations for Mercury. In accordance with 327 IAC 2-1.3-1(b), the new permit limitations are not subject to the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 as the new permit limitations are not the result of a deliberate activity taken by the permittee.

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.

3.5 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.

3.6 Post Public Notice Addendum

The draft NPDES permit for the ARCELORMITTAL INDIANA HARBOR LLC – INDIANA HARBOR WEST facility was made available for public comment from July 22, 2016 through August 22, 2016 as part of Public Notice No. 2016-7E-RD. During this comment period, a comment letter dated August 15, 2016, from Mr. Kevin Doyle, ArcelorMittal Environmental Manager, was received. The comments submitted by Mr. Doyle, and this Office's corresponding responses are

summarized below: Any changes to the permit and/or fact sheet are so noted below.

Comments on the Fact Sheet:

Comment 1: On page 3, the facility's name should be listed as "ArcelorMittal Indiana Harbor LLC – Indiana Harbor West", not ArcelorMittal USA LLC – Indiana Harbor West.

Response 1: The name has been corrected.

Comment 2: Page 3 section 2.1 states that "intermediate and final products include sinter, iron, raw steel, cast steel, hot strip, cold rolled strip, hot dip galvanized strip, and chromium and tin plated strip." There is no chromium or tin plating done by ArcelorMittal Indiana Harbor LLC – Indiana Harbor West. Those operations are covered under NPDES Permit No. IN0063711 that was issued to ArcelorMittal Indiana Harbor LLC – Central Wastewater Treatment Plant.

Response 2: The description has been corrected.

Comment 3: On page 7 section 3.2, Outfall 009's discharge limitation is listed as 1.9 milligrams per liter (mg/l), this should be changed to 1.9 nanograms per liter (ng/l).

Response 3: The units have been corrected.

Comment 4: Page 7 sections 3.2(a) and (d) refers to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".

Response 4: The language is IDEM's standard template language, developed to implement 327 IAC 5-3.5, which states "Compliance with the interim limit is achieved if the average of the measured effluent daily values over the rolling twelve (12) month period is less than the interim limit." This is consistent with other permits with SMV; therefore the language will not be changed at this time.

Comment 5: Page 8 section 3.2(e) should read "of mercury from Outfalls 009 and 010 based on the ..." with bolded text being used in place of Outfall 014.

Response 5: The correction has been made.

Comments on the Permit Modification:

Comment 6: Page 7 footnote [10], page 7a footnote [16], page 11 footnote [9], and page 11a footnote [15] all refer to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".

Response 6: Please refer to Response 4 above.

Comment 7: Page 57 item 6 has been modified to remove the following lines after the word "or", "to include effluent limitations for mercury, if mercury is found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the mercury water quality criterion." If this language was deleted because the mercury monitoring data at Outfall 012 demonstrates that, based on twelve (12) months (six(6) consecutive samples) of monitoring data at Outfall 012, "there is not a reasonable potential to exceed Indiana water quality standards", then the Outfall 012 permit pages should also have been included in the notice. Based on data provided for Outfall 012, there is no reasonable potential to exceed the Indiana mercury water quality standards. Therefore, ArcelorMittal submits that monitoring for mercury at Outfall 012 should no longer be required.

Response 7: The language was unintentionally omitted in the draft. Item 6 on Page 57 has been corrected.

Comment 8: The last sentence of the Streamlined Mercury Variance Introduction on page 78a should state "Therefore, SMVs are bring incorporated into the NPDES permit in accordance with 327 IAC 5-3.5-6 for Outfalls 009 and 010." rather than Outfalls 014 and 018.

Response 8: The correction has been made.

Comment 9: The second line of the "Term of SMV" on page 78a should refer to Parts I.A.2 and I.A.4 instead of I.A.4 and I.A.6.

Response 9: The correction has been made.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO: 2016 – 8G – F
DATE OF NOTICE: AUGUST 25, 2016

The Office of Water Quality issues the following NPDES FINAL PERMIT.

MAJOR – MODIFICATION

ARCELORMITTAL INDIANA HARBOR LLC – INDIANA HARBOR WEST, Permit No. IN0000205, LAKE COUNTY, 3001 Dickey Rd, East Chicago, IN. This major industrial permit modification reflects the SMV approval at Outfalls 009 & 010. Permit Manager: Nicole Gardner, ngardner@idem.in.gov , or 317/232-8707.

APPEAL PROCEDURES FOR FINAL PERMITS

The Final Permit documents are available for review & copies at IDEM, Indiana Government Center, North Bldg, 100 N Senate Ave, Indianapolis, IN, Rm 1203, Office of Water Quality/NPDES Permit Section, from 9 – 4, M - F (copies 10¢ per page). The Final Permit is available at the local County Health Department . See these sites for your rights & responsibilities: 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**

Appeal Procedure: Any person affected by the issuance of the Final Permit may appeal by filing a Petition for Administrative Review with the Office of Environmental Adjudication **within** eighteen (18) days of the date of this Public Notice. Any appeal request must be filed in accordance with IC 4-21.5-3-7 and must include facts demonstrating that the party requesting appeal is the applicant; a person aggrieved or adversely affected or is otherwise entitled to review by law.
Timely filing: The Petition for Administrative Review must be received by the Office of Environmental Adjudication (OEA) **within** 18 days of the date of this Public Notice; either by U.S. Mail postmark or by private carrier with dated receipt. This Petition for Administrative Review represents a request for an Adjudicatory Hearing, therefore must:

- state the name and address of the person making the request;
- identify the interest of the person making the request;
- identify any persons represented by the person making the request;
- state specifically the reasons for the request;
- state specifically the issues proposed for consideration at the hearing;
- identify the Final Permit Rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES Permit rule.

If the person filing the Petition for Administrative Review desires any part of the NPDES Final Permit Rule to be stayed pending the outcome of the appeal, a Petition for Stay must be included in the appeal request, identifying those parts to be stayed. Both Petitions shall be mailed or delivered to the address here:
Phone: 317/232-8591.

Environmental Law Judge
Office of Environmental Adjudication
IGC – North Building- Rm 501
100 N. Senate Avenue
Indianapolis IN 46204

Stay Time frame: If the Petition (s) is filed **within** eighteen (18) days of the mailing of this Public Notice, the effective date of any part of the permit, within the scope of the Petition for Stay is suspended for fifteen (15) days. The Permit will become effective again upon expiration of the fifteen (15) days, unless or until an Environmental Law Judge stays the permit action in whole or in part.

Hearing Notification: Pursuant to Indiana Code, when a written request is submitted, the OEA will provide the petitioner or any person wanting notification, with the Notice of pre-hearing conferences, preliminary hearings, hearing stays or orders disposing of the Petition for Administrative Review. Petition for Administrative Review must be filed in compliance with the procedures and time frames outlined above. Procedural or scheduling questions should be directed to the OEA at the phone listed above.

2. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 009. The discharge is limited to storm water, ground water from basement sumps, and non-contact cooling wastewater from the powerhouse area as well as treated blast furnace and sinter plant blowdown via Internal Outfall 509. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Indiana Harbor Ship Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS[1][2][3]

Table 1

	Quantity or Loading			Quality or Concentration			Monitoring	Requirements
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	-------	-------	-----	1 X Weekly	24 Hour Total
TSS	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	24-Hr. Comp.
O+G	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	Grab
TRC[4][13]	5.5	13[6]	lbs/day	0.012[5]	0.028[6]	mg/l	5 X Weekly[7]	Grab
Ammonia, as N[14]	425	1000	lbs/day	Report	Report	mg/l	1 X Weekly[15]	24-Hr. Comp.
Phenols (4AAP)[14]	Report	11	lbs/day	Report	Report	mg/l	1 X Weekly[15]	Grab
Zinc[8]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Lead[8]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Mercury[8][9][10]								
WQBELs	0.00060	0.0015	lbs/day	1.3	3.2	ng/l	6 X Yearly	Grab
Interim Discharge Limit [17]	----	----	----	1.9[16]	Report	ng/l	6 X Yearly	Grab
Temperature[12]								
Intake	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Outfall	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Whole Effluent Toxicity Testing[11]								

Table 2

	Quality or Concentration			Monitoring	Requirements
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the Narrative Water Quality Standards.

[2] In the event that changes are to be made in the use of water treatment additives, including dosage rates beyond the previously approved estimated maximum dosage rates, or changes that could significantly change the nature of, or increase the discharge concentration of the additive to Outfall 009, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives 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.

[3] The Storm Water Monitoring and Non Numeric Effluent Limits and the Storm Water Pollution Prevention Plan (SWP3) requirements can be found in Part I.D. and I.E of this permit

[4] Case-Specific LOD/LOQ

The permittee may determine a case-specific LOD or LOQ using the analytical method specified below, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	Test Method	LOD	LOQ
Chlorine	4500-Cl-D,E or 4500-Cl-G	0.02 mg/l	0.06 mg/l

[5] The monthly average water quality based effluent limit (WQBEL) for total residual chlorine is less than the limit of quantitation (LOQ) as specified below. 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.

[6] The daily maximum WQBEL for chlorine is greater than or equal to the LOD but less than the LOQ 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 27.7 lbs/day.

[7] Monitoring for TRC shall be performed, at a minimum, during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

[8] The permittee shall measure and report the identified metals as total recoverable metals.

[9] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[10] The permittee applied for, and received, a variance from the water quality criterion used to establish the referenced mercury WQBEL under 327 IAC 5-3.5. For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effuent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

[11] The permittee shall initiate a biomonitoring program for Outfall 009 using the procedures contained under Part I.H. of this permit.

[12] See Part III of this permit for additional requirements.

[13] See Part I.G for the Pollutant Minimization Program requirements.

[14] Ammonia (as N) and Phenols (4AAP) shall be reported on a net basis. For the purpose of this permit, net values are to be calculated by subtracting the measured intake values from the measured effluent values. The intake water shall be sampled for ammonia and phenols at the same frequency and sample type as the discharge waters. Samples shall be taken at a point representative of the intake prior to any contamination of the influent by recycled wastewater. The intake water shall be monitored at pumping stations 1 and 2.

[15] Sampling for Ammonia (as N) and Phenols (4AAP) shall occur at the monitoring frequencies specified in the permit on the same day at Outfalls 009, 010, 011, and 509.

[16] The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

[17] See Part V of the permit for the Pollutant Minimization Program Plan (PMPP) requirements.

4. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 010. The discharge is limited to storm water, ground water from basement sumps, and non-contact cooling wastewater from the blast furnace area, sinter plant area, powerhouse area, and boiler house as well as emergency overflow from Outfall 009. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Indiana Harbor Ship Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS[1][2][12]

Table 1

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	-------	-------	-----	1 X Weekly	24 Hour Total
TSS	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	24-Hr. Comp.
O+G	Report	Report	lbs/day	Report	Report	mg/l	1 X Weekly	Grab
TRC[3][11]	3.7	8.6[5]	lbs/day	0.012[4]	0.028[5]	mg/l	5 X Weekly[6]	Grab
Ammonia, as N[13]	100	300	lbs/day	Report	Report	mg/l	1 X Weekly[14]	24-Hr. Comp.
Phenols (4AAP)[13]	Report	5	lbs/day	Report	Report	mg/l	1 X Weekly[14]	Grab
Zinc[7]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Lead[7]	Report	Report	lbs/day	Report	Report	ug/l	1 X Weekly	24-Hr. Comp.
Mercury[7][8][9]								
WQBELs	0.00040	0.00098	lbs/day	1.3	3.2	ng/l	6 X Yearly	Grab
Interim Discharge Limit [16]	----	----	----	1.6[15]	Report	ng/l	6 X Yearly	Grab
Temperature[10]								
Intake	-------	--------	------	Report	Report	°F	2 X Weekly	Grab
Outfall	-------	--------	------	Report	Report	°F	2 X Weekly	Grab

Table 2

	Quality or Concentration			Monitoring Requirements	
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the Narrative Water Quality Standards.

[2] In the event that changes are to be made in the use of water treatment additives, including dosage rates beyond the previously approved estimated maximum dosage rates, or changes that could significantly change the nature of, or increase the discharge concentration of the additive to Outfall 010, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives 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.

[3] Case-Specific LOD/LOQ
The permittee may determine a case-specific LOD or LOQ using the analytical method specified below, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	Test Method	LOD	LOQ
Chlorine	4500-Cl-D,E or 4500-Cl-G	0.02 mg/l	0.06 mg/l

[4] The monthly average water quality based effluent limit (WQBEL) for total residual chlorine is less than the limit of quantitation (LOQ) as specified below. 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.

[5] The daily maximum WQBEL for chlorine is greater than or equal to the LOD but less than the LOQ 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 18.3 lbs/day.

[6] Monitoring for TRC shall be performed, at a minimum, during Zebra or Quagga mussel intake chlorination, and continue for three additional days after Zebra or Quagga mussel treatment has been completed.

[7] The permittee shall measure and report the identified metals as total recoverable metals.

[8] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is

required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[9] The permittee applied for, and received, a variance from the water quality criterion used to establish the referenced mercury WQBEL under 327 IAC 5-3.5. For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effuent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

[10] See Part III of this permit for additional requirements.

[11] See Part I.G for the Pollutant Minimization Program requirements.

[12] The Storm Water Monitoring and Non Numeric Effluent Limits and the Storm Water Pollution Prevention Plan (SWP3) requirements can be found in Part I.D. and I.E of this permit

[13] Ammonia (as N) and Phenols (4AAP) shall be reported on a net basis. For the purpose of this permit, net values are to be calculated by subtracting the measured intake values from the measured effluent values. The intake water shall be sampled for ammonia and phenols at the same frequency and sample type as the discharge waters. Samples shall be taken at points representative of the intake prior to any contamination of the influent by recycled wastewater. The intake water shall be monitored at pumping stations 1 and 2.

[14] Sampling for Ammonia (as N) and Phenols (4AAP) shall occur at the monitoring frequencies specified in the permit on the same day at Outfalls 009, 010, 011, and 509.

[15] The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

[16] See Part V of the permit for the Pollutant Minimization Program Plan (PMPP) requirements.

6. to reduce the mercury monitoring frequency if twelve (12) months (six (6) consecutive samples) of monitoring data at Outfall 012 demonstrate there is not a reasonable potential for mercury to exceed Indiana water quality standards; or to include effluent limitations for mercury, if mercury is found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the mercury water quality criterion.

7. to specify the use of a different analytical method if a more sensitive analytical method has been specified in or approved under 40 CFR 136 or approved by the Commissioner to monitor for the presence and amount in the effluent of the pollutant for which the WQBEL is established. The permit shall specify, in accordance with 327 IAC 5 2 11.6(h)(2)(B), the LOD and LOQ that can be achieved by use of the specified analytical method.

8. to review the monitoring requirements pursuant to 40 CFR 122.44(a)(2). The permittee may request, in writing, a review of categorical monitoring requirements. Upon review by IDEM, the permit may be modified, to reduce or delete the monitoring requirements.

9. to modify the 301(g) effluent limitations for ammonia-N and total phenols. At any time during the term of this NPDES permit, the permittee may request modification of Section 301(g) effluent limits. Such modified limits may be applied at Outfalls 509, 009, 010 and 011, or any combination thereof.

10. to modify the monthly average requirements for Internal Outfalls 701 and 702 included in this permit in response to any policy change made by this agency, with EPA concurrence, regarding compliance determinations for monthly average limits.

11. to include revised Streamlined Mercury Variances (SMV) and/or Pollutant Minimization Program Plan (PMPP) requirements.

Part V
Streamlined Mercury Variance (SMV)

Introduction

The permittee submitted an application for streamlined mercury variances (SMV) on April 21, 2016 in accordance with the provisions of 327 IAC 5-3.5. A SMV establishes a streamlined process for obtaining a variance from a water quality criterion used to establish a WQBEL for mercury in a NPDES permit. Based on a review of the SMV application, IDEM has determined the application to be complete as outlined in 327 IAC 5-3.5-4(e). Therefore, SMV are being incorporated into the NPDES permit in accordance with 327 IAC 5-3.5-6 for Outfalls 009 and 010.

Term of SMV

The SMV and the interim discharge limits included in the Discharge Limitations Tables in Parts I.A.2 and I.A.4., will remain in effect until the NPDES permit expires under IC 13-14-8-9 (amended under SEA 620, May 2005). Pursuant to IC 13-14-8-9(d), when the NPDES permit is extended under IC 13-15-3-6 (administratively extended), the SMV will remain in effect as long as the NPDES permit requirements affected by the SMV are in effect.

Annual Reports

The annual report is a condition of the Pollutant Minimization Program Plan (PMPP) requirements of 327 IAC 5-3.5-9(a)(8). The annual report must describe the permittee's progress toward fulfilling each PMPP requirement, the results of all mercury monitoring within the previous year, and the steps taken to implement the planned activities outlined under the PMPP. The annual report may also include documentation of chemical and equipment replacements, staff education programs, and other initiatives regarding mercury awareness or reductions. The complete inventory and complete evaluation required by the PMPP may be submitted as part of the annual report.

The permittee will submit the annual reports to IDEM on the anniversary of the effective date of this NPDES permit renewal, as indicated on Page 1 of this permit. Annual Reports should be submitted to the Office of Water Quality, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, Indiana 46204 2251.

SMV Renewal

As authorized under 327 IAC 5-3.5-7(a)(1), the permittee may apply for the renewal of an SMV at any time within 180 days prior to the expiration of the

NPDES permit. In accordance with 327 IAC 5-3.5-7(c), an application for renewal of the SMV must contain the following:

- All information required for an initial SMV application under 327 IAC 5-3.5-4, including revisions to the PMPP, if applicable.
- A report on implementation of each provision of the PMPP.
- An analysis of the mercury concentrations determined through sampling at the facility's locations that have mercury monitoring requirements in the NPDES permit for the two (2) year period prior to the SMV renewal application.
- A proposed alternative mercury discharge limit, if appropriate, to be evaluated by the department according to 327 IAC 5-3.5-8(b) based on the most recent two (2) years of representative sampling information from the facility.

Renewal of the SMV is subject to a demonstration showing that PMPP implementation has achieved progress toward the goal of reducing mercury from the discharge.

Pollutant Minimization Program Plan (PMPP)

The PMPP is a requirement of the SMV application and is defined in 327 IAC 5-3.5-3(4) as the plan for development and implementation of Pollutant Minimization Program (PMP). The PMPP is defined in 327 IAC 5-3.5-3(3) as the program developed by an SMV applicant to identify and minimize the discharge of mercury into the environment. PMPP requirements (including the enforceable parts of the PMPP) are outlined in 327 IAC 5-3.5-9. In accordance with 327 IAC 5-3.5-6, the permittee's PMPP is hereby incorporated within this permit below:

ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West
Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Complete Inventory/Identification	Update complete inventory/identification of chemicals, materials, equipment and storage areas containing mercury	Submittal of complete inventory/identification to IDEM	6 months: Review of MSDS and other documentation for existing chemicals, materials, equipment and storage areas. Update of inventory for all primary Operations.
			7 months: Update of inventory for all Finishing operations 8 months: Update of inventory for all Utilities operations 9 months: Update of inventory for all remaining operations.
Review Policies and Procedures for chemical, material, and equipment purchasing	Review MSDS and other documentation from vendors or manufacturers	Ensure current policies and procedures are adequate to identify and minimize purchase of chemicals, materials and equipment containing mercury	Currently implemented
	Minimize the purchase of chemicals, materials and equipment containing mercury		
Employee Training	Education and increased awareness	Evaluation of current employee Environmental and Health and Safety program	Complete evaluation within 6 months
		If necessary, revise current training program to include relevant mercury identification, handling, recycling and disposal information	Implement revised program within 7 months
Facility-wide Mercury Disposal and Recycling Program	Ensure materials, chemicals and equipment containing mercury are properly stored and recycled or disposed offsite	Track and document estimated amount of mercury disposed per applicable mercury disposal and recycling regulations	Currently implemented
Spill Containment Procedures	Minimize possibility of accidental spills and releases	Adequate training of employees on good housekeeping practices that reduce the possibility of accidental spills and releases (see "Staff Training" Activity)	Currently implemented
Maintenance and Cleaning Practices	Ensure proper and safe handling of mercury-containing materials, chemicals and equipment during maintenance and cleaning activities	Ensure procedures to minimize the release of mercury from chemicals, materials and equipment containing mercury are implemented during maintenance and cleaning activities	Currently implemented

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ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West
Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Characterization of Sources to Outfalls	Evaluate levels of mercury preset in intake water to plant	Data collected as part of the mercury QAPP activities required by the NPDES permit demonstrate the source of mercury in discharges is mercury present in intake water from the Indiana Harbor Ship Canal.	Complete. Data collected in 2012 and 2014 and reported in the Final Plan for Compliance Implementation Report submitted to IDEM in March 2015.
	Evaluate levels of mercury preset in internal Outfalls	Conduct periodic monitoring of internal Outfalls for comparison to final Outfall data	Collect and analyze samples 2/year at Outfalls 509, 702 and 701. Collect samples concurrent to (same day as) collection of samples at Outfalls 009 and 011. Data will be included in annual reports submitted at the end of each calendar year.
Alternatives for Mercury Reduction	Evaluation of alternatives for mercury-bearing chemicals, materials and equipment	Investigate replacement and/or reduction options for in-service chemicals, materials and equipment containing mercury	Schedule to be developed based on the results of the various source characterization activities

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National Pollutant Discharge Elimination System
Fact Sheet for

ArcelorMittal USA LLC-Indiana Harbor West

Draft modification: July 2016
Final modification: August 2016

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 USA LLC-Indiana Harbor West 3001 Dickey Road East Chicago, IN 46312 Lake County
Existing Permit Information:	Permit Number: IN0000205 Expiration Date: November 30, 2016
Facility Contact:	Mr. Kevin Doyle, Environmental Manager (219) 399-1686 Kevin.Doyle@arcelormittal.com
Facility Location:	Same as above
Receiving Stream:	Indiana Harbor Ship Canal
GLI/Non-GLI:	GLI
Proposed Permit Action:	Modify to apply SMV at Outfalls 009 and 010
Date Application Received:	April 21, 2016
Source Category	NPDES Major– Industrial
Permit Writer:	Nikki Gardner, Section Chief (317) 232-8707 or ngardner@idem.in.gov

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1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a request from ArcelorMittal Indiana Harbor LLC – Indiana Harbor West on April 21, 2016 to modify National Pollutant Discharge Elimination System (NPDES) Permit IN0000205. The current five year permit was issued with an effective date of December 1, 2011, and was modified December 1, 2014, in accordance with 327 IAC 5-2-6(a). The expiration date remains November 30, 2016.

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 Permit modification Fact Sheet identifies the basis for this modification to the permit and the modified pages of the permit issued on December 1, 2014.

2.0 FACILITY DESCRIPTION

2.1 General

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West is classified under Standard Industrial Classification (SIC) Code 3312 – Steel Mill. The permittee is a large integrated steel mill. Intermediate and final products include sinter, iron, raw steel, cast steel, hot strip, cold rolled strip, and hot dip galvanized strip.

The wastewater treatment system has an average discharge of approximately 127 MGD and has been given a Class D industrial wastewater treatment plant classification in accordance with 327 IAC 5-22. A map showing the location of the facility has been included as Figure 1.

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Figure 1: Facility Location

3001 Dickey Road
East Chicago, IN 46312
Lake County

2.2 Affected Outfall Locations

Outfall 009:	Latitude:	41º 39' 40"	Longitude:	-87º 27' 10"
Outfall 010:	Latitude:	41º 39' 40"	Longitude:	-87º 27' 05"

3.0 PERMIT MODIFICATION

3.1 Modification Request

The NPDES permit for IHW (NPDES Permit No. IN0000205, effective December 1, 2011) contains a 54-month compliance schedule to achieve water quality based effluent limits (WQBELs) for mercury at Outfalls 009 and 010. The final compliance date is June 1, 2016.

The compliance schedule required the submittal of a Quality Assurance Project Plan (QAPP) which described the methods selected for identifying the sources of mercury. This QAPP was submitted to IDEM in March 2012. The NPDES permit also required progress reports, a Final Plan for Compliance (FPC), and a FPC Implementation Report containing the results of the investigations and actions implemented to meet final effluent limits for mercury at the respective outfalls. The FPC Implementation Report was submitted to IDEM in March 2015.

ArcelorMittal believes that the data collected and investigations completed as part of the QAPP demonstrate that the source of mercury is intake water from the Indiana Harbor Ship Canal. Therefore, ArcelorMittal is requesting IDEM review the SMV application for Indiana Harbor West (IHW) in a timely manner to facilitate issuance of the requested permit modification in advance of or as close to June 1, 2016 as is possible. As required by 327 IAC 5-3.5, the application includes the following:

Completed SMV Application Form (State Form 52111)
Interim Discharge Limits for Mercury (calculated using procedures at 327 IAC 5-3.5-8)
Pollutant Minimization Program Plan (PMPP)
Documentation of Public Notice Activities
Completed Potentially Affected Parties Form (State Form 49456)

The PMPP was placed on public notice in the March 7, 2016 edition of the Times of Northwest Indiana. The public comment period was March 7 to April 7, 2016. No comments were received during the public comment period.

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Outfall 009 Data:

PART FOUR - OUTFALL 009					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/28/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/28/14 (DUP)	1.240		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	0.802		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	0.946		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.760		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.430		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.502		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	1.100		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15	2.470		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.540	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15 (DUP)	0.611		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	0.579		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

Outfall 010 Data:

PART FOUR - OUTFALL 010					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/24/14	0.803		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.653		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.010		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.510		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.450		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	1.590		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.390		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.607		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	0.555		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	0.896		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.796		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	0.621		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	0.644		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

3.2 IDEM's Proposed Modification

IDEM's review of the data submitted for these two outfalls supports application of SMV and interim discharge limitations of 1.9 ng/l (Outfall 009) and 1.6 ng/l (Outfall 010) are proposed.

(a) For the term of this permit, the permittee is subject to the interim discharge limit developed in accordance with 327 IAC 5-3.5-8.

The permittee shall report both a daily maximum concentration and an annual average concentration for total mercury. The annual average value shall be calculated as the average of the measured effluent daily values from the most recent twelve-month period. Reporting of the annual average value for mercury is not required during the first year of the permit term.

Calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury.

(b) Mercury shall be measured and reported as total recoverable metals.

(c) Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

(d) The interim discharge limit is the Annual Average. Compliance with the interim discharge limit will be achieved when the annual average measured over the most recent (rolling) twelve-month period is less than the interim discharge limit.

Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for this outfall.

(e) As part of the SMV, the permittee is required to develop a Pollutant Minimization Program (PMP) to identify and minimize the discharge of mercury from Outfalls 009 and 010 based on the rule requirements found at 327 IAC 5-3.5 (Streamlined Mercury Variance Rule). The Pollutant Minimization Program Plan (PMPP), which is the plan for development and implementation of the PMP, has been incorporated as Part V of the permit.

(f) A reopener clause has been included in the permit which states "This permit may be modified, or, alternately, revoked and reissued after public notice and opportunity for hearing, to include revised Streamlined Mercury Variance (SMV) and/or Pollutant Minimization Program Plan (PMPP) requirements."

3.3 Antibacksliding

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.

3.4 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.

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.

This permit includes new permit limitations for Mercury. In accordance with 327 IAC 2-1.3-1(b), the new permit limitations are not subject to the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 as the new permit limitations are not the result of a deliberate activity taken by the permittee.

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.

3.5 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.

3.6 Post Public Notice Addendum

The draft NPDES permit for the ARCELORMITTAL INDIANA HARBOR LLC – INDIANA HARBOR WEST facility was made available for public comment from July 22, 2016 through August 22, 2016 as part of Public Notice No. 2016-7E-RD. During this comment period, a comment letter dated August 15, 2016, from Mr. Kevin Doyle, ArcelorMittal Environmental Manager, was received. The comments submitted by Mr. Doyle, and this Office's corresponding responses are

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summarized below: Any changes to the permit and/or fact sheet are so noted below.

Comments on the Fact Sheet:

Comment 1: On page 3, the facility's name should be listed as "ArcelorMittal Indiana Harbor LLC – Indiana Harbor West", not ArcelorMittal USA LLC – Indiana Harbor West.

Response 1: The name has been corrected.

Comment 2: Page 3 section 2.1 states that "intermediate and final products include sinter, iron, raw steel, cast steel, hot strip, cold rolled strip, hot dip galvanized strip, and chromium and tin plated strip." There is no chromium or tin plating done by ArcelorMittal Indiana Harbor LLC – Indiana Harbor West. Those operations are covered under NPDES Permit No. IN0063711 that was issued to ArcelorMittal Indiana Harbor LLC – Central Wastewater Treatment Plant.

Response 2: The description has been corrected.

Comment 3: On page 7 section 3.2, Outfall 009's discharge limitation is listed as 1.9 milligrams per liter (mg/l), this should be changed to 1.9 nanograms per liter (ng/l).

Response 3: The units have been corrected.

Comment 4: Page 7 sections 3.2(a) and (d) refers to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".

Response 4: The language is IDEM's standard template language, developed to implement 327 IAC 5-3.5, which states "Compliance with the interim limit is achieved if the average of the measured effluent daily values over the rolling twelve (12) month period is less than the interim limit." This is consistent with other permits with SMV; therefore the language will not be changed at this time.

Comment 5: Page 8 section 3.2(e) should read "of mercury from Outfalls 009 and 010 based on the ..." with bolded text being used in place of Outfall 014.

Response 5: The correction has been made.

Comments on the Permit Modification:

Comment 6: Page 7 footnote [10], page 7a footnote [16], page 11 footnote [9], and page 11a footnote [15] all refer to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".

Response 6: Please refer to Response 4 above.

Comment 7: Page 57 item 6 has been modified to remove the following lines after the word "or", "to include effluent limitations for mercury, if mercury is found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the mercury water quality criterion." If this language was deleted because the mercury monitoring data at Outfall 012 demonstrates that, based on twelve (12) months (six(6) consecutive samples) of monitoring data at Outfall 012, "there is not a reasonable potential to exceed Indiana water quality standards", then the Outfall 012 permit pages should also have been included in the notice. Based on data provided for Outfall 012, there is no reasonable potential to exceed the Indiana mercury water quality standards. Therefore, ArcelorMittal submits that monitoring for mercury at Outfall 012 should no longer be required.

Response 7: The language was unintentionally omitted in the draft. Item 6 on Page 57 has been corrected.

Comment 8: The last sentence of the Streamlined Mercury Variance Introduction on page 78a should state "Therefore, SMVs are bring incorporated into the NPDES permit in accordance with 327 IAC 5-3.5-6 for Outfalls 009 and 010." rather than Outfalls 014 and 018.

Response 8: The correction has been made.

Comment 9: The second line of the "Term of SMV" on page 78a should refer to Parts I.A.2 and I.A.4 instead of I.A.4 and I.A.6.

Response 9: The correction has been made.

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ArcelorMittal USA LLC
ArcelorMittal Indiana Harbor LLC

IDEM
OFFICE OF
WATER QUALITY

2016 APR 21 A 10: 53

ArcelorMittal

Mr. Stan Rigney
Office of Water Quality (N1203)
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46203

April 19, 2016

Subject: Industrial Streamlined Mercury Variance (SMV) Applications
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West - NPDES Permit No. IN0000205
ArcelorMittal Indiana Harbor LLC – Central Treatment Plant – NPDES Permit No. IN0063711
ArcelorMittal USA LLC – Indiana Harbor East – NPDES Permit No. IN0000094

Dear Mr. Rigney:

Please find enclosed Industrial Streamlined Mercury Variance (SMV) applications for Indiana Harbor East, Indiana Harbor West, and Indiana Harbor Central Treatment Plant. As required by 327 IAC 5-3.5, the applications include the following:

Completed SMV Application Form (State Form 52111)
Interim Discharge Limits for Mercury (calculated using procedures at 327 IAC 5-3.5-8)
Pollutant Minimization Program Plan (PMPP)
Documentation of Public Notice Activities
Completed Potentially Affected Parties Form (State Form 49456)

The PMPP was placed on public notice in the March 7, 2016 edition of the Times of Northwest Indiana. The public comment period was March 7 to April 7, 2016. No comments were received during the public comment period.

These NPDES Permits contain final water quality-based effluent limits for mercury at Central Treatment Plant Outfall 001; Indiana Harbor West Outfalls 002, 009, 010 and 011; and Indiana Harbor East Outfalls 011, 014 and 018 that become effective on June 1, 2016. ArcelorMittal is requesting IDEM review the enclosed SMV application in a timely manner to facilitate issuance of the requested permit modification in advance of or as close to June 1, 2016 as is possible.

ArcelorMittal greatly appreciates IDEM's prompt review of the enclosed SMV application. If you have any questions regarding this submittal, please call Simonne Benoit of my staff at 219-399-2109.

Sincerely,

Kevin A. Doyle
Manager, Environmental

Arcelor Mittal USA LLC / Indiana Harbor LLC
Environmental
3210 Watling St
East Chicago, IN 46312
MC 2-444

T + (219) 399-1686
F + (219) 399-3211

File: N:\3 - Water\Permits

ArcelorMittal

ArcelorMittal Indiana Harbor LLC
Indiana Harbor West

3001 Dickey Road
East Chicago, Indiana 46312
(219) 399-2109

Industrial Streamlined Mercury Variance (SMV) Application

NPDES Permit No. IN0000205

April 2016

Prepared by:

AMENDOLA ENGINEERING INC.

Amendola Engineering, Inc.
Lakewood, OH

INDUSTRIAL STREAMLINED MERCURY VARIANCE (SMV) APPLICATION

State Form 52111 (5-05)
Approved by State Board of Accounts, 2005
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Indiana Department of Environmental Management
Office of Water Quality – Mail Code 65-42
NPDES Permits Branch
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

PART ONE: General Information

Name of Facility: ArcelorMittal Indiana Harbor LLC – Indiana Harbor West		
Facility Address: 3001 Dickey Road		
City or Town: East Chicago		
State: Indiana	ZIP Code: 46312	County: Lake
National Pollutant Discharge Elimination System (NPDES) Permit No.: IN0000205		
Name of Person in Responsible Charge: Kevin Doyle		
Title: Manager, Environmental		
Address: 3001 Dickey Road		
City or Town: East Chicago		
State: Indiana	ZIP Code: 46312	
Name of Primary Contact Person: Simonne Benoit		
Address: 3210 Watling Street		
City or Town: East Chicago		
State: Indiana	ZIP code: 46312	Telephone No.: (219) 399-2109
E-mail Address (if available): Simonne.Benoit@arcelormittal.com		
NPDES Outfall(s) Affected by Streamlined Mercury Variance Request: Outfalls 002, 009, 010, 011		
Receiving Stream(s) Affected by Streamlined Mercury Variance Request: Indiana Harbor Ship Canal		
Average Daily Flow: Outfall 002: 11.2 mgd; Outfall 009: 55.3 mgd; Outfall 010: 36.6 mgd; Outfall 011: 23.4 mgd		
Provide a brief description of all operations contributing to the permitted discharge(s): Ironmaking & Steelmaking Wastewaters, Non-Contact Cooling Water, Storm Water & Groundwater		

SIGNATURE BLOCK

This application must be signed by a person in responsible charge (see 327 IAC 5-2-22) to be valid. This signature attests to the following:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Kevin Doyle	Title: Manager, Environmental
Signature:	Date Signed *(month, day, year)*: 4-19-16

Return the completed SMV application package (Parts I - V) and $50 application fee (see IC 13-18-20-12(a)(4)) to mailing address listed above.

PART TWO – POLLUTANT MINIMIZATION PROGRAM PLAN (PMPP) INVENTORY/IDENTIFICATION

A. Provide a preliminary inventory of potential uses and sources of mercury in all buildings and departments, as well as a preliminary identification of known mercury-bearing equipment, wastestreams, and mercury storage sites. The following checklist* includes many of the chemicals, equipment, locations, etc. where mercury may be present at your site. For the purpose of satisfying the requirements of this section, you may submit the completed checklist as a preliminary inventory/identification. While the checklist is intended to facilitate the inventory/identification process, it should not be considered as all-inclusive for purposes of establishing a complete inventory. *(see 327 IAC 5-3.5-9(a)(1) and 327 IAC 5-3.5-9(a)(2))*

LABORATORY EQUIPMENT

☐ Manometers	☒ Ion exchange cartridges for lab water purification system
☐ Barometers	☐ Hanging mercury drop electrodes for polarographic analyzers
☒ Thermometers**	☒ Mercury Hallow Cathode lamp for AA analysis

LABORATORY CHEMICALS

☒ COD analysis reagent *(mercuric sulfate)*	☐ Mercury or mercurous chloride
☐ TKN and TP analysis digestion reagents	☐ Mercury iodide
☐ Nessler reagent	☐ Mercury nitrate
☐ Mercury analytical standards	☐ Mercury (II) oxide
☐ Gas chromatograph sample interferences *(elemental mercury)*	☐ Mercury (II) sulfate
☒ Sodium hypochlorite *(Clorox)*	☐ Merthiolate

BULK CHEMICALS

☐ Phosphorus removal chemicals	☐ Chlorine
☐ Dechlorination chemicals	☐ Sodium hypochlorite
☐ Sludge thickening polymers	☐ Sulfuric acid
☐ Potassium hydroxide	☐ Nitric acid
☐ Sodium hydroxide	☐ Ferric or ferrous chloride
☐ Sodium chloride	☐ Pickling liquor *(for phosphorus removal)*

PROCESS CONTROL AND MEASURING EQUIPMENT

☐ Accustats	☐ Ring balances
☐ Barometers	☐ Shunt trips
☐ Counterweights	☐ Steam flow meters
☐ Elemental mercury for refilling mercury-containing equipment	☐ Stokes gauges
	Switches and relays:
☐ Flow meters	☐ Displacement plunger relays
☐ Gas regulators and meters	☒ Mercoid control switches
☐ Gyroscopes	☐ Pressure control switches *(mounted on bourdon tube or diaphragm)*
☐ Hydrometers with thermometers	☐ Relay switches
☐ Level and rotation sensors	☐ Mercury wetted relays
☐ Manometers, pressure gauges and vacuum gauges	☐ Mercury displacement relays (found in motors)
☐ Mercury-sealed pistons	☐ Sump pump, bilge pump and other float controls
☐ Permeters	☐ Tilt switches
☐ Pressure-trols	☐ Thermometers *(including industrial dial face thermostats with capillary tubes)*
☐ Pyrometers	☐ Thermostats and thermoregulators
☐ Rectifiers	☐ Transmitters

BUILDINGS

☒ DC watt-hour meters	Hydronic and warm air controls with tilt switches such as:
☐ Flame sensors *(found in the pilot light and burner assembly on gas-fired furnaces, boilers, unit heaters and space heaters)*	☐ Aquastats
	☐ Pressurestats
	☐ Firestats
	☐ Fan limit controls
* This checklist was borrowed from the Delta Institute	☐ Pressure/flow controls on air handling units.

**Currently labs are in process of collecting all mercury thermometers for disposal.

PART TWO (CONTINUED)

BUILDINGS *(continued)*

Switches and relays:

☐ Fire alarm box switches	☐ Mercury displacement relays *(found in lighting, resistance heating and motors)*
☐ Silent light switches	
☐ Relay switches	☐ Sump pump, bilge pump, flow monitor, float switches, and other float controls
☒ Mercury wetted relays	
	☐ Tilt switches

Phosphorus removal chemicals:

- ☐ Ferric or ferrous chloride
- ☐ Pickling liquor

☐ Thermostats

BEARINGS AND SEALS

☐ Trickling filter Pivot Arm Bearings *(mercury bearings/water seals)*

LAMPS

☒ Fluorescent	☒ Mercury vapor lamps
☒ High-pressure sodium	☒ Metal halide
☐ Mercury arc	☐ Ultraviolet disinfection

BATTERIES

☐ Mercury-zinc *(button)* batteries	☐ Mercury alkaline batteries
☐ Mercury-cadmium batteries	☐ Mercury oxide batteries

PAINT

☐ Old latex-paint (pre-1990)	☐ Marine paint

FIRST AID/MEDICAL

☐ Mercurochrome	☐ Thermometers
☐ Sphygmomanometers	☐ Thimerosal *(contained in eye wash)*

OTHER

☐ Old pesticides, fungicides and herbicides	☐ Fleet vehicles may contain ABS, convenience and trunk lighting switches and HID headlamps
☐ Tree root growth control products	
☐ Computer monitors	

COLLECTION SYSTEM

☐ Lift station equipment	☐ Sewer lines with accumulated mercury
☐ Traps with accumulated mercury	☐ Other mercury containing equipment
☐ Sumps with accumulated mercury	☐ Mercury-containing chemicals used and/or stored on-site

MERCURY STORAGE SITES

☒ Elemental mercury	☒ Mercury-containing items collected for disposal

B. Provide a plan and schedule for providing a complete inventory initiated under Section A. above. *(see 327 IAC 5-3.5-9(a)(1))* The schedule required under this part should be expressed in terms of months from the date of NPDES permit issuance, renewal, or modification that incorporates the approved SMV. It is recommended that the schedule required under this part be developed in conjunction with the other schedules for action required by the SMV application.

A complete inventory should include an estimate of quantities *(i.e., volume of chemicals used annually, or numbers of mercury containing equipment)* for each item identified in Part II.A. Additionally, a complete inventory should include documentation from chemical suppliers and equipment suppliers of the mercury content in your most commonly purchased items. Mercury may not be present in a concentration great enough to appear on an MSDS, yet still contribute to the overall level of mercury in the influent.

* This checklist was borrowed from the Delta Institute

PART THREE - POLLUTANT MINIMIZATION PROGRAM PLAN (PMPP) PLANNED ACTIVITIES

A. Provide a list of planned activities to be conducted to eliminate or minimize the release of mercury to waters of the state. The list of planned activities may consider technical and economic feasibility and must include, at a minimum: *(see 327 IAC 5-3.5-9(a)(3))*

1. A review of purchasing policies and procedures.
2. Necessary training and awareness for facility staff.
3. Evaluation of alternatives to the use of any mercury-containing equipment or materials.
4. Other specific activities designed to reduce or eliminate mercury loadings.
5. An identification of the facility's responsibilities under P.L.225-2001 *(also known as House Enrolled Act 1901 of the 2001 legislative session)*. P.L.225-2001 outlines the restrictions on the sale or supply of mercury-added novelties, mercury-added products, and mercury commodities, and on the use or purchase of mercury commodities, compounds, or mercury-added instructional equipment and materials by public and non-public schools. In order to satisfy the requirement of this part, include a written statement that attests to the fact that an identification of the responsibilities under P.L.225-2001 has been undertaken.

B. For each planned activity identified under section A. above, include the following: *(see 327 IAC 5-3.5-9(a)(4))*

1. The goal to be accomplished.
2. A measure of performance.
3. A schedule for action. The schedule required under this part should be expressed in terms of months from the date of NPDES permit issuance, renewal, or modification that incorporates the approved SMV. It is recommended that the schedule required under this part be developed in conjunction with the other schedules for action required by the SMV application.

C. Provide an identification of the resources and staff necessary to implement the Pollutant Minimization Program Plan (PMPP). *(see 327 IAC 5-3.5-9(a)(6))* The identification should indicate the source and amount of funding available to implement the PMPP, as well as the number and position of employees that will be devoted to PMPP implementation.

PART FOUR – MERCURY MONITORING DATA

Provide all available influent and effluent mercury data for the two-year period preceding submittal of this application. Additionally, provide any information on mercury in biosolids for the two-year period preceding submittal of this application, if available. The data may be supplied on a separate form, but must include results for each individual sample *(including unit of measurement and U.S. EPA method)*, the date the sample was taken, and the analytical laboratory where the analysis was performed. *(see 327 IAC 5-3.5-9(a)(5))*

Influent

Date *(month, day, year)*	Result	ng/l	U.S. EPA Method	Analytical Laboratory
Not required by				
NPDES Permit				
(no data)				

PART FOUR (CONTINUED)

Effluent

Date *(month, day, year)*	Result	ng/l	U.S. EPA Method	Analytical Laboratory
See attached data				
table				

Biosolids

Date *(month, day, year)*	Result	Unit	U.S. EPA Method	Analytical Laboratory
Not generated at				
facility				

PART FIVE – POLLUTANT MINIMIZATION PROGRAM PLAN (PMPP) ADDITIONAL REQUIREMENTS

A. <u>Proof of Public Notice Activities</u>: **Provide proof of the public notice activities identified below:** ***(see 327 IAC 5-3.5-9©)*** **For the notice of availability required under Section A.1. provide a copy of the notice as it appears in the newspaper. For the posting requirements under Section A.2. attest to that fact that the information was posted as required in a written statement.**

1. Publish notice of the availability of the draft pollutant minimization program plan (PMPP) in a daily or weekly newspaper of general circulation throughout the area affected by the discharge.

2. Post a copy of the information required by this section at the following:

   a. Principal office of the municipality or political subdivision affected by the facility or discharge.
   b. The United States post office.
   c. If one is available, the library serving those premises.

3. All notices published under this section shall contain the following information: *(see 327 IAC 5-3.5-9(d))*

   a. The name and address of the applicant that prepared the PMPP.
   b. A general description of the elements of the PMPP.
   c. A brief description of the activities or operations that result in the discharge for which an SMV is being requested.
   d. A brief description of the purpose of this notice and the comment procedures.
   e. The name of a contact person, a mailing address, an Internet address, if available, and a telephone number where interested persons may obtain additional information and a copy of the PMPP.

4. The applicant shall do the following: *(see 327 IAC 5-3.5-9(e))*

   a. Provide a minimum comment period of thirty (30) days.
   b. Include a copy of the comments received and the applicant's responses to those comments in the SMV application submitted to the department.

B. <u>Annual Reports:</u> **Provide a schedule for the submission of the annual reports required under 327 IAC 5-3.5-9(a)(8). Generally, the annual reports should be submitted each year on the anniversary of the effective date of the NPDES permit that incorporates the approved SMV. A proposed schedule with an alternative submittal date is subject to IDEM's approval. The annual reports shall include a description of the facility's progress toward fulfilling each PMPP requirement, mercury monitoring results, and steps taken to implement each planned activity developed under the PMPP.**

PART FOUR - OUTFALL 002					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/24/14	0.979		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/24/14 (DUP)	0.917		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.979		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	0.613		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.010		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.080		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14 (DUP)	1.050		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14 (DUP)	0.636		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	0.949		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.590		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	0.852		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

PART FOUR - OUTFALL 009					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/28/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/28/14 (DUP)	1.240		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.768		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	0.802		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	0.946		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	2.260		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14 (DUP)	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.760		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.430		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.502		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	1.100		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15	2.470		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/25/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.540	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15 (DUP)	0.611		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	0.579		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

PART FOUR - OUTFALL 010					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/24/14	0.803		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	0.653		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.010		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.510		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14 (DUP)	2.450		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	1.230		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	1.590		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.600		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	1.390		0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	0.607		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	0.555		0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	0.896		0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	0.796		0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	0.621		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	0.644		0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

PART FOUR - OUTFALL 011					
Effluent					
Date *(month, day, year)*	Result	Qual.	Rlimit	U.S. EPA Method	Analytical Laboratory
02/24/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/21/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/20/14 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14	0.347	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/27/14 (DUP)	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/15/14	1.200		0.5	EPA 1631E	Microbac (Merrillville, IN)
08/28/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/23/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/29/14	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
02/12/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
04/13/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
06/23/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
08/10/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
10/09/15	ND	U	0.5	EPA 1631E	Microbac (Merrillville, IN)
12/10/15	0.624		0.5	EPA 1631E	Microbac (Merrillville, IN)

Qualifiers

U Analyte below the method detection limit

Pollutant Minimization Program Plan
ArcelorMittal Indiana Harbor LLC
Indiana Harbor West
NPDES Permit No. IN0000205
East Chicago, Indiana

1.0 Introduction and Background

This Pollutant Minimization Program Plan (PMPP) is part of an application by ArcelorMittal Indiana Harbor LLC – Indiana Harbor West (IHW) to obtain a Streamlined Mercury Variance (SMV) under 327 IAC 5-3.5.

1.1 Quality Assurance Project Plan Activities and Source of Mercury to Outfalls 002, 009, 010 and 011

The NPDES permit for IHW (NPDES Permit No. IN0000205, effective December 1, 2011) contains a 54-month compliance schedule to achieve water quality based effluent limits (WQBELs) for mercury at Outfalls 002, 009, 010 and 011. The final compliance date is June 1, 2016.

The compliance schedule required the submittal of a Quality Assurance Project Plan (QAPP) which described the methods selected for identifying the sources of mercury to Outfalls 002, 009, 010 and 011. This QAPP was submitted to IDEM in March 2012. The NPDES permit also required progress reports, a Final Plan for Compliance (FPC), and a FPC Implementation Report containing the results of the investigations and actions implemented to meet final effluent limits for mercury at the respective outfalls. The FPC Implementation Report was submitted to IDEM in March 2015.

Data collected and investigations completed as part of the QAPP demonstrate that the source of mercury to Outfalls 002, 009, 010 and 011 is intake water from the Indiana Harbor Ship Canal. These data are presented graphically in Figures 1 through 4.

The procedure for developing SMV interim discharge limits listed at 327 IAC 5-3.5-8 requires the use of effluent mercury data to develop interim limits. Because the source of mercury to the plant has been demonstrated to be mercury present in intake water from the Indiana Harbor Ship Canal, interim limits granted as part of the Streamlined Mercury Variance process will be based on levels of mercury present in intake water and is beyond the control of ArcelorMittal. The development of SMV interim discharge limits is discussed in Section 1.3

1.2 Mercury Pollution Prevention Initiative

In 1998, a stakeholders group providing input into the Lake-wide Management Plan for Lake Michigan signed a voluntary agreement known as the Mercury Pollution Prevention Initiative. The stakeholders included the following:

Bethlehem Steel Burns Harbor Division (ArcelorMittal Burns Harbor)
Ispat Inland Indiana Harbor Works (ArcelorMittal USA LLC – Indiana Harbor East)
United States Steel Gary Works
U. S. Environmental Protection Agency
Indiana Department of Environmental Protection

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The agreement called for the three participating companies to initiate a process consisting of three essential steps:

1. Conduct an inventory of current and ongoing purchases of mercury and mercury-containing equipment and materials, mercury in use at the facilities in equipment, and liquid mercury in storage. In addition, determine the presence of mercury in significant waste streams and revert outputs.
2. Identify, where possible, alternatives to mercury containing equipment and materials, and potential recycling options.
3. Prepare reduction plans that indicate reduction goals, planned actions to reach the goals, including an implementation and reporting schedule

ArcelorMittal intends to utilize the information and experience gained during this previous mercury minimization effort in compiling the inventory required by this variance.

1.3 Mercury Interim Effluent Limits

The procedure for developing SMV interim discharge limits is listed at 327 IAC 5-3.5-8:

327 IAC 5-3.5-8 SMV interim discharge limit

Sec. 8. (a) The interim limit for mercury discharge for the duration of an SMV shall be based on representative effluent data that have been analyzed using Analytical Method 1631 or any analytical method approved by the department. The interim limit shall be expressed as the highest daily value for mercury from a data set that includes a minimum of six (6) daily values that are generally evenly spaced over the most recent twelve (12) to twenty-four (24) month period and representative of the four (4) seasons. The highest daily value will become the value for the interim limit. Compliance with the interim limit is achieved if the average of the measured effluent daily values over the rolling twelve (12) month period is less than the interim limit. An SMV is not available to an applicant that requests an interim limit greater than thirty (30) ng/l (parts per trillion).

The following table presents interim discharge limits for mercury at Outfalls 002, 009, 010 and 011 in accordance with the above-referenced procedure. Outfall monitoring data from January 2014 to December 2015 that were used to calculate the interim limits are provided in Part Four of the SMV application as required by 327 IAC 5-3.5-9(a)(5).

Outfall	Dates	No. Data*	Maximum Daily Value (ng/L)	Interim Annual Average Effluent Limit (ng/L)
002	Jan. 2014 – Dec 2015	16	1.08	1.08
009	Jan. 2014 – Dec 2015	23	2.47	2.47
010	Jan. 2014 – Dec 2015	19	2.51	2.51
011	Jan. 2014 – Dec 2015	17	1.20	1.20

*Includes duplicate (QA/QC) analyses.

2.0 SMV Application Part Two A: Preliminary Inventory/Identification [327 IAC 5-3.5-9(a)(1) and (2)]

A preliminary inventory/identification of potential sources of mercury at IHW is included as Part Two A of the SMV application form. The information was completed by personnel familiar with day-to-day operations at the facility. For purposes of the preliminary inventory/identification, ArcelorMittal has assumed all identified chemicals, equipment, and storage areas identified in the checklist may contain mercury and has treated materials as such in order to prevent their accidental release of mercury. The complete inventory/identification as specified in this PMPP, will determine which identified, chemicals, equipment and storage areas (if any) contain mercury. A complete inventory will be provided to IDEM per the attached schedule.

3.0 SMV Application Part Two B and Part Three: PMPP Planned Activities [327 IAC 5-3.5-9(a)(3), (4) and (6)]

Attachment 1 details the planned activities, goals to be accomplished, measures of performance, and schedules for action included in this PMPP.

[327 IAC 5-3.5-9(a)(3)(E)]

House Enrolled Act 1901 of the 2001 legislative session (P.L.225-2001) outlines the restrictions on the sale or supply of mercury-added novelties, mercury-added products, and mercury commodities, and on the use or purchase of mercury commodities, compounds, or mercury-added instructional equipment and materials by public or non-public schools. Part Three of the SMV application requires ArcelorMittal to provide a written statement attesting that an identification of the responsibilities under P.L.225-2001 has been undertaken. This written statement is provided below:

Certification Statement:

Acknowledging its responsibilities under P.L.225-2001, ArcelorMittal Indiana Harbor LLC - Indiana Harbor West attests mercury commodities, compounds, and mercury-added instructional equipment has not been sold, supplied, or otherwise provided by ArcelorMittal Indiana Harbor LLC – Indiana Harbor West to public or non-public schools.

Kevin Doyle
Manager, Environmental
ArcelorMittal Indiana Harbor LLC
Indiana Harbor West

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[327 IAC 5-3.5-9(a)(6)

Resources required to implement the PMPP will be provided through the general environmental budget for IHW. This includes the following IHW personnel that are available to implement the PMPP. In addition, contract personnel may be used, as necessary, to implement specific portions of this PMPP.

Position/Department	No. Personnel
Manager, Environmental Technology	1
Environmental Engineer	1
Purchasing Department	1
Health & Safety	1
Operations and Maintenance	4

4.0 SMV Application Part Four: Mercury Monitoring Data [327 IAC 5-3.5-9(a)(5)

All available mercury monitoring data for Outfalls 002, 009, 010 and 011 for the previous two year period (January 2014 to December 2015) are included as Part Four of the SMV application form. Measurement of mercury present in intake water is not required by the NPDES permit. Biosolids data are not provided, as biosolids are not generated at IHW.

5.0 SMV Application Part Five: Other PMPP Requirements [327 IAC 5-3.5-9(a)(7) and (8)]

Public Notice Requirements

The public notice document and proof of publication are included as Attachment 2 to this PMPP. After completion of the 30-day public notice period,

The PMPP was placed on public notice in the March 7, 2016 edition of the Times of Northwest Indiana. The public comment period was March 7 to April 7, 2016. No comments were received during the public comment period.

Annual Reports

Annual reports including a description of progress towards completing each PMPP requirement, updated mercury monitoring results, and steps taken to implement each planned activity developed under the PMPP will be submitted by the end of each calendar year following the effective date of the SMV.

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Figure 1
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
Outfall 002
Mercury QAPP Data vs. Final NPDES Permit Limits

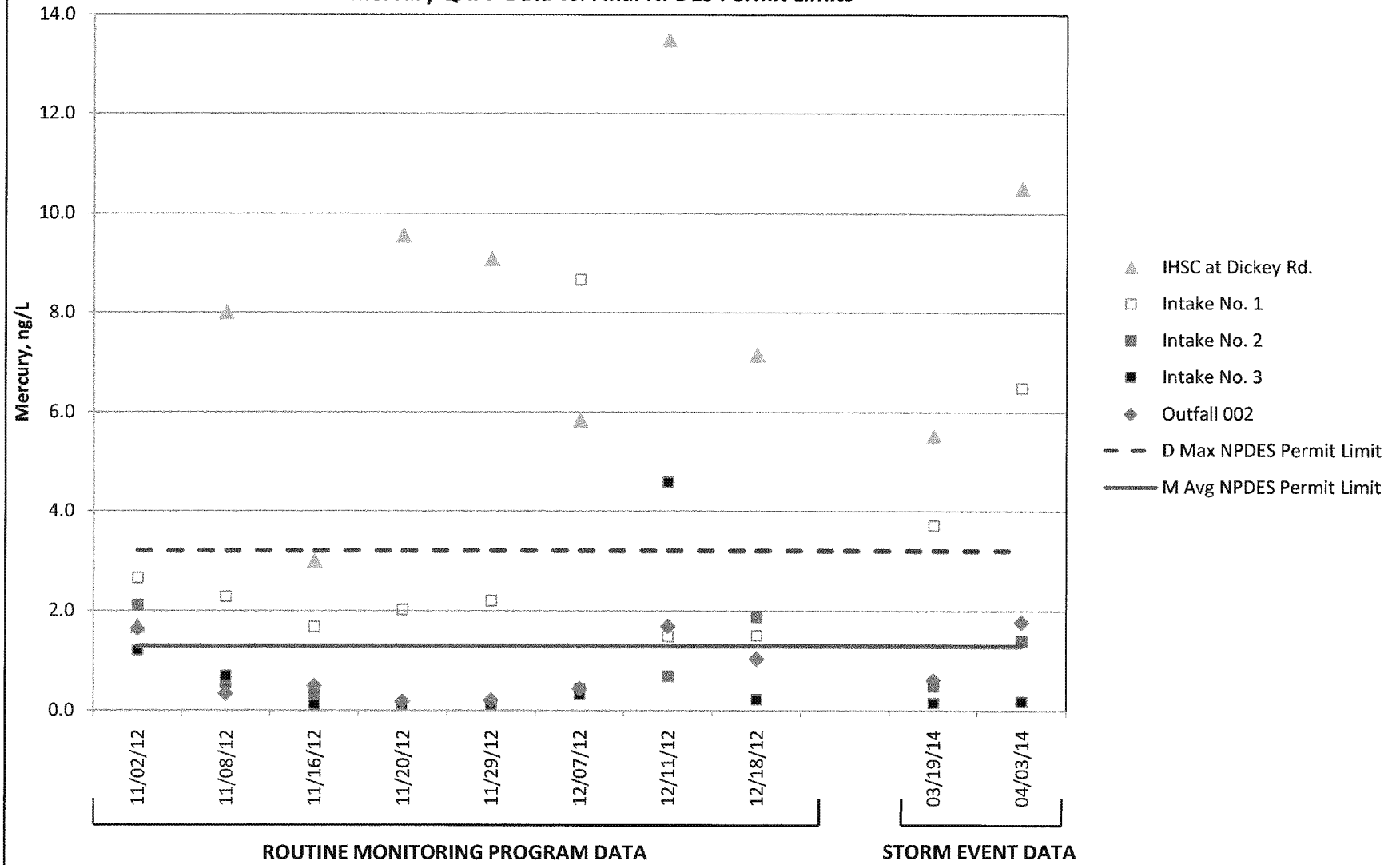


Figure 2
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
Outfall 009
Mercury QAPP Data vs. Final NPDES Permit Limits

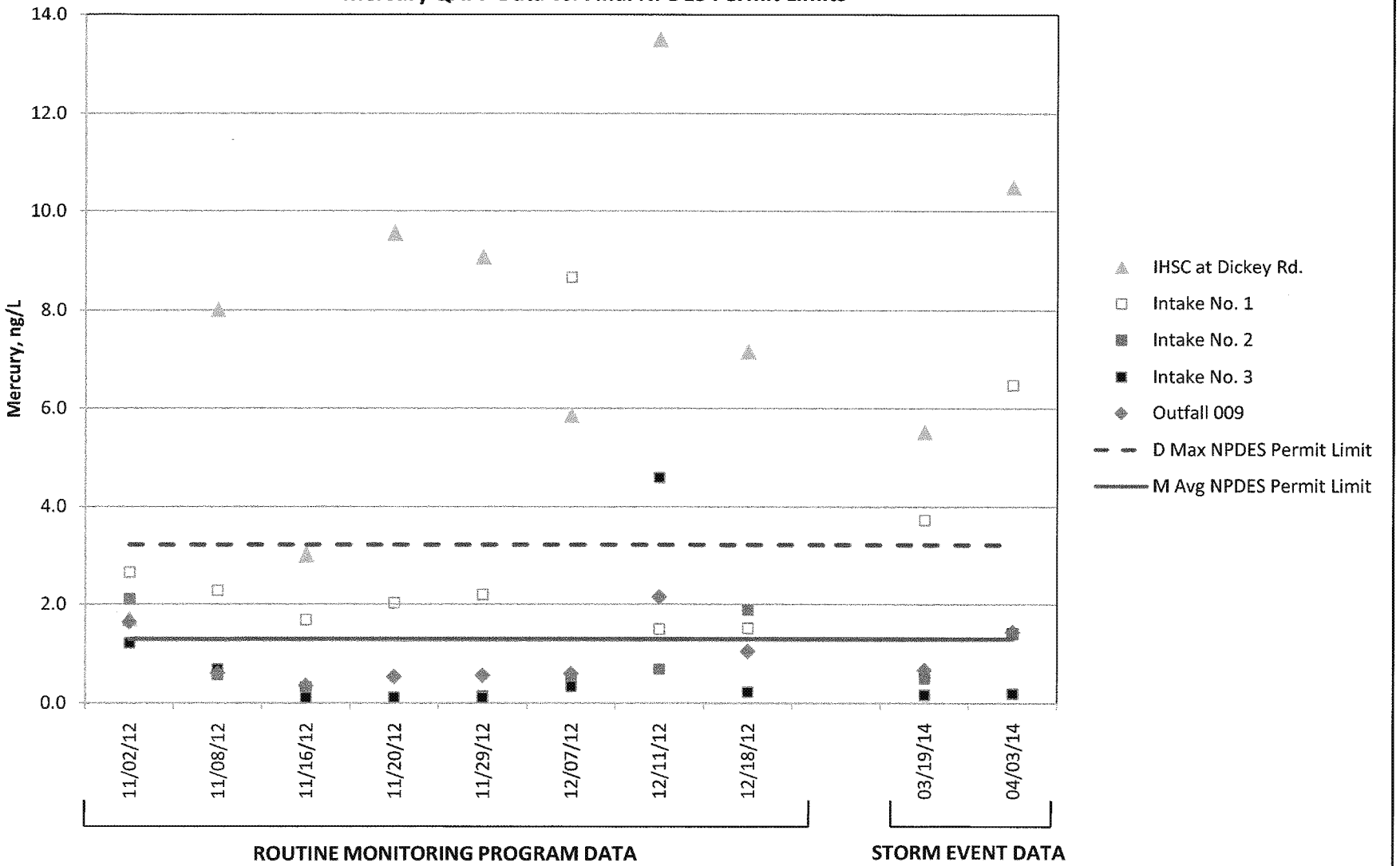


Figure 3
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
Outfall 010
Mercury QAPP Data vs. Final NPDES Permit Limits

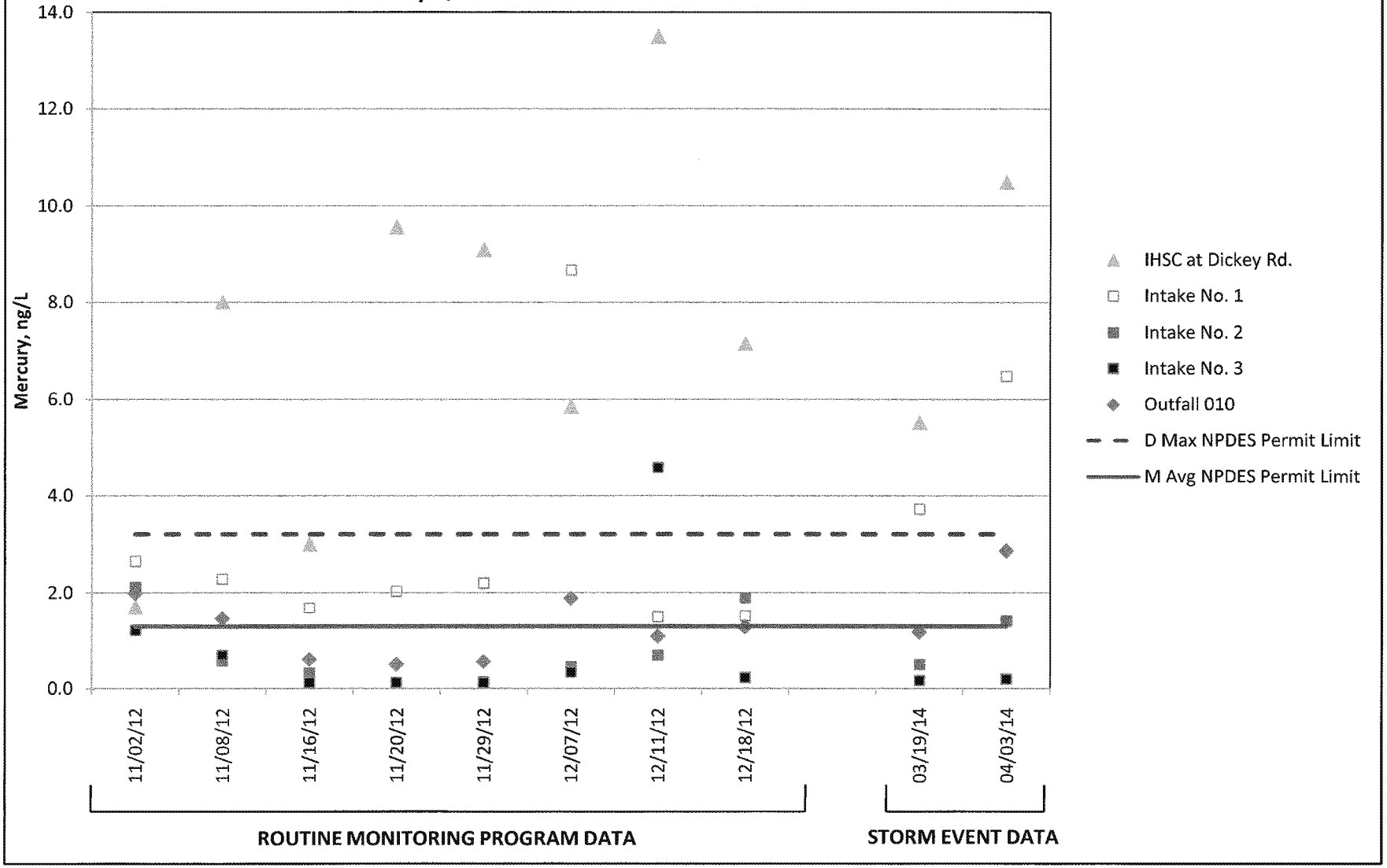
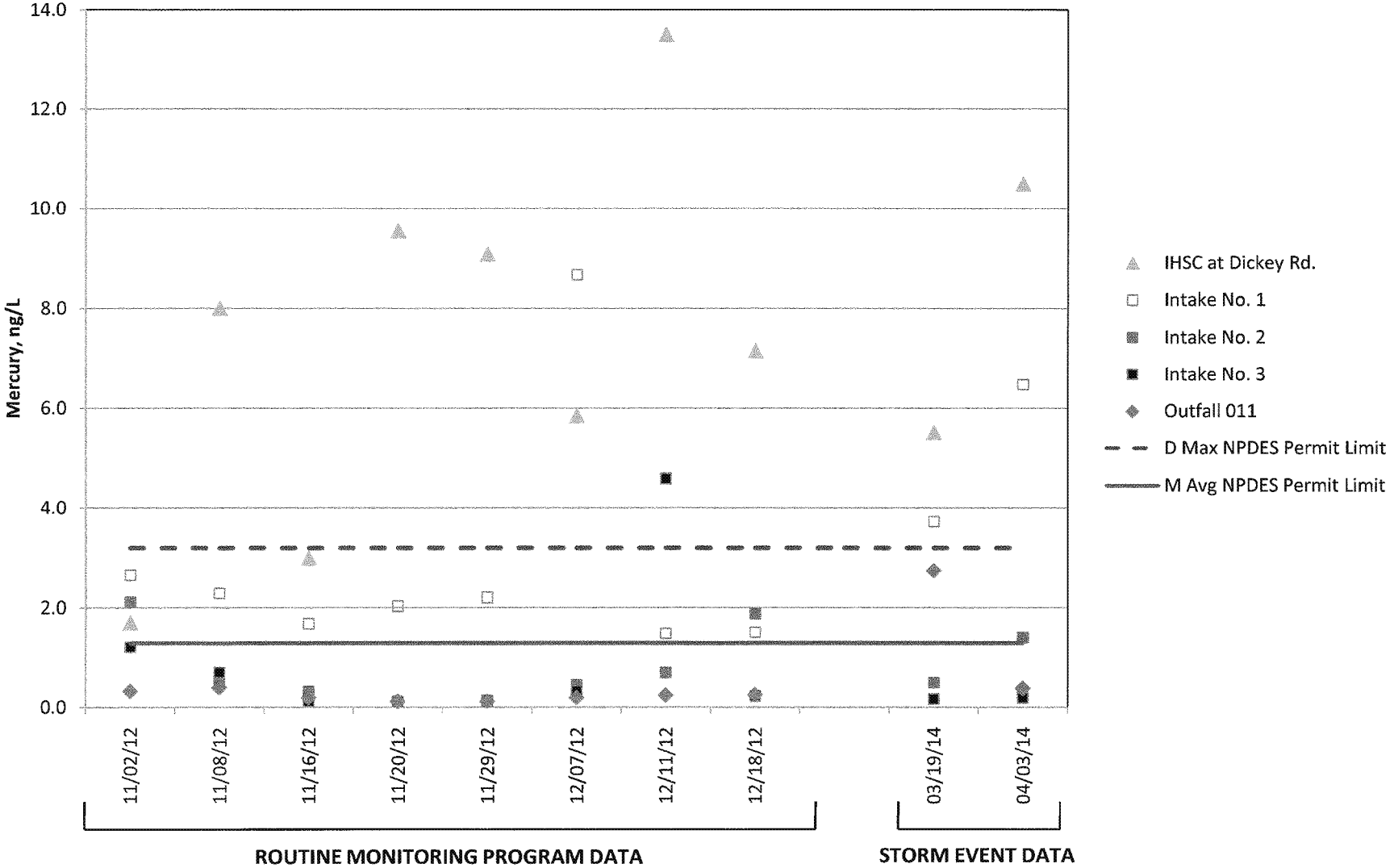


Figure 4
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
Outfall 011
Mercury QAPP Data vs. Final NPDES Permit Limits



ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West
Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Complete Inventory/Identification	Update complete inventory/identification of chemicals, materials, equipment and storage areas containing mercury	Submittal of complete inventory/identification to IDEM	**6 months:** Review of MSDS and other documentation for existing chemicals, materials, equipment and storage areas. Update of inventory for all primary Operations.
			7 months: Update of inventory for all Finishing operations **8 months:** Update of inventory for all Utilities operations **9 months:** Update of inventory for all remaining operations.
Review Policies and Procedures for chemical, material, and equipment purchasing	Review MSDS and other documentation from vendors or manufacturers	Ensure current policies and procedures are adequate to identify and minimize purchase of chemicals, materials and equipment containing mercury	Currently implemented
	Minimize the purchase of chemicals, materials and equipment containing mercury		
Employee Training	Education and increased awareness	Evaluation of current employee Environmental and Health and Safety program	Complete evaluation within **6 months**
		If necessary, revise current training program to Include relevant mercury identification, handling, recycling and disposal information	Implement revised program within **7 months**
Facility-wide Mercury Disposal and Recycling Program	Ensure materials, chemicals and equipment containing mercury are properly stored and recycled or disposed offsite	Track and document estimated amount of mercury disposed per applicable mercury disposal and recycling regulations	Currently implemented
Spill Containment Procedures	Minimize possibility of accidental spills and releases	Adequate training of employees on good housekeeping practices that reduce the possibility of accidental spills and releases (see "Staff Training" Activity)	Currently implemented
Maintenance and Cleaning Practices	Ensure proper and safe handling of mercury-containing materials, chemicals and equipment during maintenance and cleaning activities	Ensure procedures to minimize the release of mercury from chemicals, materials and equipment containing mercury are implemented during maintenance and cleaning activities	Currently implemented

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ATTACHMENT 1

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West

Pollutant Minimization Program Plan (PMPP)

Planned Activity	Goal	Measure of Performance	Schedule for Action (from the date SMV is incorporated into NPDES Permit)
Characterization of Sources to Outfalls	Evaluate levels of mercury preset in intake water to plant	Data collected as part of the mercury QAPP activities required by the NPDES permit demonstrate the source of mercury in discharges is mercury present in intake water from the Indiana Harbor Ship Canal.	Complete. Data collected in 2012 and 2014 and reported in the Final Plan for Compliance Implementation Report submitted to IDEM in March 2015.
	Evaluate levels of mercury preset in internal Outfalls	Conduct periodic monitoring of internal Outfalls for comparison to final Outfall data	Collect and analyze samples 2/year at Outfalls 509, 702 and 701. Collect samples concurrent to (same day as) collection of samples at Outfalls 009 and 011. Data will be included in annual reports submitted at the end of each calendar year.
Alternatives for Mercury Reduction	Evaluation of alternatives for mercury-bearing chemicals, materials and equipment	Investigate replacement and/or reduction options for in-service chemicals, materials and equipment containing mercury	Schedule to be developed based on the results of the various source characterization activities

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ATTACHMENT 2

PUBLIC NOTICE

Mercury Pollutant Minimization Program Plan (PMPP)
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
3001 Dickey Road, East Chicago, IN 46312
NPDES Permit No. IN0000205

ArcelorMittal Indiana Harbor LLC - Indiana Harbor West located in East Chicago, Indiana (ArcelorMittal) proposes to submit an application for a Streamlined Mercury Variance (SMV) including a Mercury Pollutant Minimization Program Plan (PMPP) in accordance with 327 IAC 5-3.5 to the Indiana Department of Environmental Management (IDEM) for its steelmaking facility (NPDES Permit No. IN0000205) located at 3001 Dickey Road, East Chicago, Lake County, Indiana 46312.

The SMV is a streamlined process focusing on pollution prevention and source control to achieve mercury effluent reductions due to a recognized lack of economically viable end-of-pipe treatment options. The SMV is available to any facility with an effective NPDES permit that contains or will contain a Water Quality Based Effluent Limit (WQBEL) for mercury that cannot be consistently achieved.

In order to obtain a SMV, an industrial facility must develop a PMPP that contains the elements identified in 327 IAC 5-3.5-9(a)(1) through (8). The PMPP provides the foundation for the development and implementation of the mercury pollutant minimization program (PMP) and includes: (1) a preliminary inventory of potential uses and sources of mercury in all buildings and departments that may contribute mercury to the discharge; (2) a plan and schedule to provide a complete inventory; (3) preliminary identification of mercury-bearing equipment, wastewaters and mercury storage sites; (4) a list of planned activities to eliminate or minimize the release of mercury to the discharge; (5) the goals for each planned activity, including measuring performance and a schedule of action; (6) all available mercury monitoring data for the two year period preceding the SMV application; (7) identification of the resources and staff necessary to implement the PMPP; (8) proof of completion of public notice activities; and (9) annual reports according to the schedule in the PMPP.

ArcelorMittal Indiana Harbor LLC – Indiana Harbor West is an iron and steel making facility that currently discharges about 127 million gallons per day of treated iron & steel production wastewaters, non-contact cooling water, storm water & groundwater through several permitted outfalls to the Indiana Harbor Ship Canal.

The purpose of the notice is to provide the general public the opportunity to review the Draft PMPP prior to submittal to IDEM and provide comments to ArcelorMittal within 30 days of this public notification. Interested persons are invited to submit written comments on the proposed Mercury Pollutant Minimization Program Plan to ArcelorMittal. Written comments must be postmarked no later than the Response Due Date to be included in the final application. All comments must include the name and address of the person making the comments, persons represented by the person making the comments and the issue proposed for consideration. Any response to comments received before the response date noted will be sent to IDEM as a part of the submittal.

Application documents and the PMPP may be inspected at the East Chicago Municipal Office Building, the East Chicago Post Office or the East Chicago public library during normal business hours. Additional information and/or copies of the draft PMPP may be obtained by contacting the individual identified below.

Public Notice Date:	03/07/2016
Response Due Date:	04/07/2016
Contact Information:	Ms. Simonne Benoit 3210 Watling Street East Chicago, IN 46312 Mail Code 2-444 Simonne.Benoit@arcelormittal.com (219) 399-2109

Page	:	1 of 2 03/03/2016 14:59:11	**Ad Number**	:	10941317
			Ad Key	:	
Order Number	:	20750126	**Salesperson**	:	24 - 24 LEGALS
PO Number	:		**Publication**	:	The Times
Customer	:	60071074 AMENDOLA ENGINEERING IN	**Section**	:	Classified
Contact	:	Matthew A. Oxsalida, P.E.	**Sub Section**	:	Legal Notices
Address1	:	15711 Detroit Avenue	**Category**	:	198 Legal
Address2	:		**Dates Run**	:	03/07/2016-03/07/2016
City St Zip	:	Lakewood OH 44107	**Days**	:	1
Phone	:	(216) 521-5903	**Size**	:	1 x 9.74, 108 lines
Fax	:	(216) 521-5905	**Words**	:	560
	:		**Ad Rate**	:	PP
Printed By	:	Nicole Muscari	**Ad Price**	:	442.00
Entered By	:	Nicole Muscari	**Amount Paid**	:	0.00
			Amount Due	:	442.00
Keywords	:	ArcelorMittal Indiana Harbor West Public Notice			
Notes	:				
Zones	:				

PUBLIC NOTICE
Mercury Pollutant Minimization Program Plan (PMPP)
ArcelorMittal Indiana Harbor LLC - Indiana Harbor West
3001 Dickey Road,
East Chicago, IN 46312
NPDES Permit No. IN0000205

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			Ad Key	:	
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Address1	:	15711 Detroit Avenue	**Category**	:	198 Legal
Address2	:		**Dates Run**	:	03/07/2016-03/07/2016
City St Zip	:	Lakewood OH 44107	**Days**	:	1
Phone	:	(216) 521-5903	**Size**	:	1 x 9.74, 108 lines
Fax	:	(216) 521-5905	**Words**	:	560
	:		**Ad Rate**	:	PP
Printed By	:	Nicole Muscari	**Ad Price**	:	442.00
Entered By	:	Nicole Muscari	**Amount Paid**	:	0.00
			Amount Due	:	442.00
Keywords	:	ArcelorMittal Indiana Harbor West Public Notice			
Notes	:				
Zones	:				

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Contact Information:

Ms. Simonne Benoit
3210 Watling Street
East Chicago, IN 46312
Mail Code 2-444
Simonne.Benoit@arcelormittal.com
(219) 399-2109

I. Identification of Potentially Affected Persons

Please list here any and all persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify any person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with AOPA and to avoid reversal of a decision, please list all such parties. The letter attached to this form will further explain the requirements under the AOPA. Attach additional names and addresses on a separate sheet of paper, as needed. Please indicate below the type of action you are requesting.

Name: United States Coast Guard Street: 610 Canal Street City/State/Zip: Chicago, IL 60607	Name: East Chicago Water Department Street: 400 E. Chicago Ave City/State/Zip: East Chicago, IN 46312
Name: Hammond Water Department Street: 6505 Columbia Avenue City/State/Zip: Hammond, IN 46324	Name: Whiting Water Deparment Street: 1443 119th Street City/State/Zip: Whiting, IN 46394
Name: Grand Calumet Task Force Street: 2400 New York Avenue, Ste 300 City/State/Zip: Whiting, IN 46394	Name: City of East Chicago Marina Street: 3301 Aldis Avenue City/State/Zip: East Chicago, IN 46313
Name: AmeriStar East Chicago Casino Street: 777 Harrah's Boulevard City/State/Zip: East Chicago, IN 46312	Name: Horseshoe Casino Hammond Street: 777 Casino Drive City/State/Zip: Hammond, IN 46320
Name: Street: City/State/Zip:	Name: Street: City/State/Zip:
Name: Street: City/State/Zip:	Name: Street: City/State/Zip:
Name: Street: City/State/Zip:	Name: Street: City/State/Zip:

II. Please complete this form by signing the following statement.

I certify to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5.

Signature:	Printed name: Kevin Doyle	Date: 4-19-16
Facility Name: ArcelorMittal Indiana Harbor LLC - Indiana Harbor West		
Facility Address: 3001 Dickey Road., East Chicago, IN 46312		

III. Type of Action (check one)

- ☑ NPDES PERMIT - 327 IAC 5
- ☐ PRETREATMENT PERMIT - 327 IAC 5
- ☐ SEWER BAN WAIVER REQUEST - 327 IAC 4
- ☐ CONSTRUCTION PERMIT - 327 IAC 3

Return To:

Indiana Department of Environmental Management
Office of Water Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana, 46206-6015

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Stan Rigney	Norma Conway
IDEM OWQ	ArcelorMittal
100 N SENATE AVE RM IGCN1255	3001 Dickey Road
IGCN 1255	Door 001
INDIANAPOLIS, IN	East Chicago, IN
462042273	46312
US	US
219-391-2624	2193912624

Shipment Information:
Tracking no.: 776139288423
Ship date: 04/19/2016
Estimated shipping charges: 6.27

Package Information
Pricing option: FedEx Standard Rate
Service type: FedEx 2Day
Package type: Your Packaging
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:
Bill transportation to: AM E Chicago Indiana-760
Your reference: SMV Applications IHE/IHW CTP
P.O. no.:
Invoice no.:
Department no.:

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ArcelorMittal
Indiana Harbor LLC

ArcelorMittal

Ms. Nicole Gardner, Chief
Industrial NPDES Permits Section
Indiana Department of Environmental Management
Office of Water Quality
100 North Senate Avenue

August 15, 2016

Subject: Draft Modification: Permit No. IN0000205
ArcelorMittal Indiana Harbor LLC-Indiana Harbor West
East Chicago, IN - Lake County

Dear Ms. Gardner,

The following comments are provided by ArcelorMittal for ArcelorMittal Indiana Harbor LLC (Indiana Harbor West) based on our review of the Draft NPDES Permit modification for Indiana Harbor West:

Comments on the Fact Sheet:

1. On page 3, the facility's name should be listed as "ArcelorMittal Indiana Harbor LLC – Indiana Harbor West", not "ArcelorMittal USA LLC-Indiana Harbor West".
2. Page 3 section 2.1 states that "Intermediate and final products include sinter, iron, raw steel, cast steel, hot strip, cold rolled strip, hot dip galvanized strip, and chromium and tin plated strip." There is no chromium or tin plating done by ArcelorMittal Indiana Harbor LLC- Indiana Harbor West. Those operations are covered under NPDES Permit No. IN0063711 that was issued to ArcelorMittal Indiana Harbor LLC – Central Wastewater Treatment Plant.
3. On page 7 section 3.2, Outfall 009's discharge limitation is listed as 1.9 milligrams per liter (mg/L), this should be changed to 1.9 nanograms per liter (ng/L).
4. Page 7 sections 3.2(a) and (d) refers to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".
5. Page 8 section 3.2(e) should read "of mercury from **Outfalls 009 and 010** based on the ..." with bolded text being used in place of Outfall 014.

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East Chicago, IN 46312
MC 2-444
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Comments on the Permit Modification

6. Page 7 footnote [10], page 7a footnote [16], page 11 footnote [9], and page 11a footnote [15] all refer to an annual average, when referring to the "annual average" or the "most recent twelve-month period", ArcelorMittal would like this to be specified as "the arithmetic average, of the daily data, from the previous twelve calendar months".
7. Page 57 item 6 has been modified to remove the following lines after the word "or", "to include effluent limitations for mercury, if mercury is found to be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the mercury water quality criterion." If this language was deleted because the mercury monitoring data at Outfall 012 demonstrates that, based on twelve (12) months (six (6) consecutive samples) of monitoring data at Outfall 012, "there is not a reasonable potential to exceed Indiana water quality standards", then the Outfall 012 permit pages should also have been included in the notice. Based on data provided for Outfall 012, there is no reasonable potential to exceed the Indiana mercury water quality standard. Therefore, ArcelorMittal submits that monitoring for mercury at Outfall 012 should no longer be required.
8. The last sentence of the Streamlined Mercury Variance Introduction on page 78a should state "Therefore, SMV**s** are being incorporated into the NPDES permit in accordance with 327 IAC5-3.5-6 for **Outfalls 009 and 010**." rather than Outfalls 014 and 018.
9. The second line of the "Term of SMV" on page 78a should refer to Parts I.A.2 and I.A.4 instead of I.A.4 and I.A.6.

Should you have any questions in regard to these comments, feel free to contact Simonne Benoit of my staff at (219) 399-2109.

Sincerely,

Kevin A. Doyle
Manager, Environmental

cc: Douglas Bley, Regional Manager – Water Programs, ArcelorMittal USA

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Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
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Michael R. Pence
Governor

Carol S. Comer
Commissioner

VIA ELECTRONIC MAIL August 25, 2016

Mr. Kevin Doyle, Environmental Manager
ArcelorMittal Indiana Harbor LLC
3210 Watling Street
East Chicago, IN 46312

Dear Mr. Doyle:

Re: Final Modification: Permit No. IN0000205
ArcelorMittal Indiana Harbor LLC-
Indiana Harbor West
East Chicago, IN - Lake County

Your request for modification of the above-referenced discharge permit has been processed in accordance with Section 402 and 405 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et seq.), and IDEM's permitting authority under IC 13-15.

The enclosed Pages 1, 5-7a, 9-11a, 57, and 78(a)-78(d) of 78(d) are intended to replace the corresponding pages of your existing NPDES Permit No. IN0000205. An accompanying Fact Sheet itemizes and explains the rationale for the revisions. All discharges from the referenced facility shall be consistent with the terms and conditions of this permit, as modified.

Pursuant to IC 4-21.5-3-5(f), the determination of modification in this letter becomes effective fifteen (15) days after it has been served; however, pursuant to IC 4-21.5-3-2(e), if it is served by mail it becomes effective eighteen (18) days after issued. It should also be noted that any appeal must be filed under procedures outlined in IC 13 15-6, IC 4 21.5, and the enclosed Public Notice. The appeal must be initiated by filing a petition for administrative review with the Office of Environmental Adjudication (OEA) within fifteen (15) days of the emailing of an electronic copy of this letter or within eighteen (18) days of the mailing of this letter by filing at the following address:

Office of Environmental Adjudication
Indiana Government Center North
100 North Senate Avenue, Room 501
Indianapolis, IN 46204

Please send a copy of any such appeal to me at the IDEM, Office of Water Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251. Any appeal request must be filed in accordance with IC 4-21.5-3-7, IC 13-15-7, and the enclosed Public Notice. The appeal request must include facts demonstrating that the party requesting appeal is the applicant, a person aggrieved or adversely affected by this modification or otherwise entitled to review by law. Pursuant to IC 13-15-7-3, the permit shall remain in force pending a decision on any appeal that has been timely requested under the provisions of IC 4-21.5 and IC 13-15-7.

Please note that after December 31, 2016, IDEM will no longer accept paper DMRs or MMR forms. Periodic compliance sampling reports will need to be submitted using NetDMR after that date. If you are not already doing so, IDEM recommends that you enroll in NetDMR as soon as possible.

If you have questions concerning this modification, please contact Nikki Gardner at 317/232-8707 or ngardner@idem.in.gov. Questions concerning appeal procedures should be directed to the Office of Environmental Adjudication at 317/232-8591.

Sincerely,

Paul Higginbotham
Deputy Assistant Commissioner
Office of Water Quality

Enclosure

cc: Lake County Health Department
Chief, Permit Section, U.S. EPA Region V
Simonne Benoit, ArcelorMittal
Doug Bley, ArcelorMittal