

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO: 20260908 – IN0002887– D
DATE OF NOTICE: September 8, 2026
DATE RESPONSE DUE: October 8, 2026

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

MAJOR – MODIFICATION:

Indianapolis Power & Light (IPL) dba AES Indiana Petersburg Generating Station, Permit No. IN0002887, PIKE COUNTY, 6925 North State Road 57, Petersburg, IN. The permittee generates electrical power through the combustion of coal and oil. The permittee requests modification to their NPDES permit to relocate Outfall 001 and Outfall 007 and add two newly constructed Outfalls 009 and Outfall 010. The locations of the Outfalls are included in the following table:

Outfall 001	Latitude: 38° 32' 01"
	Longitude: -87° 14' 52"
Internal Outfall 101	Latitude: 38° 31' 58"
	Longitude: -87° 14' 52"
Outfall 002	Latitude: 38° 31' 37"
	Longitude: -87° 15' 11"
Outfall 007	Latitude: 38° 31' 34"
	Longitude: -87° 14' 40"
Proposed Outfall 009	Latitude: 38° 32' 02"
	Longitude: -87° 15' 15"
Proposed Outfall 010	Latitude: 38° 31' 27"
	Longitude: -87° 15' 36"

IDEM agrees to modify the permit to include the relocation of wastestreams associated with Outfalls 001 and 007. The newly constructed outfalls will be named Outfall 009 and Outfall 010. Permit Manager: Jodi Wray, 317/234-9739, jwray@idem.in.gov. Posted online at <https://www.in.gov/idem/public-notices/>.

PROCEDURES TO FILE A RESPONSE

You are hereby notified of the availability of a 30-day public comment period regarding the referenced draft permit, in accordance with 327 IAC 5-3-9. The application and draft permit documents are available for inspection at IDEM, Office of Water Quality, IGCN 12th Floor East, 100 N. Senate Ave., Indianapolis, IN 46204 from 9:00 a.m. until 4:00 p.m., Monday thru Friday, (copies 10¢ per page). The Draft Permit is posted online on the above-referenced IDEM public notice web page. A courtesy copy has also been sent via email to the local County Health Department. Please tell others whom you think would be interested in this matter. For more information about public participation including your rights &

responsibilities, please see <https://www.in.gov/idem/public-notice/>. You may want to consult our online Citizens' Guide to IDEM: <https://www.in.gov/idem/about/citizens-guide-to-idem>.

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

To Request a Public Hearing: Any person may request a public hearing. A written request must be submitted to the above address on or before the Response Due Date. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the hearing. The Department will determine whether to hold a public hearing based upon the comments and the rationale for the request. Public Notice of such a hearing will be posted on IDEM's web page for public notices and notifications will also be sent to those persons submitting comments and/or on the mailing list at least 30 days prior to the hearing.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • Fax (317) 233-6647 • www.idem.in.gov

Mike Braun
Governor

Clint Woods
Commissioner

September 8, 2026

VIA ELECTRONIC MAIL

Braden Henson, Plant Leader – Environmental
Indianapolis Power & Light Company dba AES Indiana – Petersburg Generating Station
6925 North State Road 57
Petersburg, IN 47567

Dear Braden Henson:

Re: NPDES Permit No. IN0002887
Draft Permit Modification
IPL dba AES Indiana – Petersburg Generating
Station
Petersburg, IN – Pike County

Your request for a permit modification has been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is a copy of the draft permit modification.

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

Please review this draft permit modification and associated documents carefully to become familiar with the proposed terms and conditions. Comments concerning the draft permit modification should be submitted in accordance with the procedure outlined in the enclosed public notice form. We suggest that you meet with us to discuss major concerns or objections you may have with the draft permit modification.

Questions concerning this draft permit modification may be addressed to Jodi Wray of my staff, at 317/234-9739 or jwray@idem.in.gov.

Sincerely,

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

Enclosures

cc: Pike County Health Department
Nysa Hogue, AES Indiana
Jeremy Ferguson, IDEM
Chief, Permits Section, U.S. EPA, Region 5



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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 "Clean Water Act" or "CWA"), and IDEM's authority under IC 13-15,

INDIANAPOLIS POWER & LIGHT COMPANY (IPL) DBA AES INDIANA - PETERSBURG
GENERATING STATION

is authorized to discharge from a coal-fired steam electric generating facility that is located at 6925 North State Road 57, Petersburg, IN, to receiving waters identified as Lick Creek and the White River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

The permit, as issued on May 7, 2025, is hereby amended, as contained herein. The amended provisions shall become effective _____. 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 May 31, 2030. 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 on _____ for the Indiana Department of
Environmental Management.

Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.

The permittee is authorized to discharge from Outfall 001 located at Latitude 38° 32' 01", Longitude -87° 14' 52, in accordance with the terms and conditions of this permit. The discharge is limited to stormwater and "other" WWTP wastewaters consisting of coal pile runoff, cooling tower blowdown, low volume wastewater, sanitary wastewater (Outfall 101), non-chemical metal cleaning wastewater, water storage tank overflows, and water treatment residuals. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lick Creek. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3][4][11]

Outfall 001

Table 1

[illegible]

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Interim	----	----	----	0.002	0.0035	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.0015	0.0025	mg/l	2 X Monthly	24-Hr. Comp.
Chloride	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Chromium, Total [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Fluoride [13]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	1.9	3.3	mg/l	2 X Monthly	24-Hr. Comp.
Cyanide, Free [8][9][13]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	Grab
Final	----	----	----	0.0049	0.0085	mg/l	2 X Monthly	Grab
Lead [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Mercury [6][8][10]	----	----	----	12	20	ng/l	6 X Annually	Grab
Nickel [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Selenium [6][8][13]								
Interim	----	----	----	0.033	0.057	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.0031	0.0075	mg/l	2 X Monthly	24-Hr. Comp.
Manganese [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Zinc [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
TDS	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Phosphorus	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Temperature [13][15]								
Interim	----	----	----	Report	Report	°F	Continuous	Report
Final [16][17]	----	----	----	Report	Report	°F	Continuous	Report

Table 2

Parameter	Quality or Concentration				Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [12]	6.0	----	9.0	s.u.	1 X Weekly	Grab

- [1] See Part I.B. of the permit for the minimum narrative limitations.
- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of water treatment additives, including increased dosage that could significantly change the nature of or increase the discharge concentration, the permittee must apply for and receive approval from IDEM prior to such discharge to this Outfall. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/idem/forms/idem-forms-list/>.
- [3] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.

- [4] See Part III of the permit for additional requirements.
- [5] Effluent flow is to be measured continuously using a flow measuring device. The permittee may use engineering calculations to measure flow during times when the flow measurement device is inoperative.
- [6] The permittee shall measure and report the identified metal as total recoverable metal.
- [7] The water quality based effluent limit (WQBEL) for total residual chlorine (TRC) is less than the limit of quantitation (LOQ) as specified in footnote [8]. Compliance with this permit will be demonstrated if the effluent concentrations measured are less than the LOQ.

Effluent concentrations greater than or equal to the LOD but less than the Limit of Quantitation (LOQ), shall be reported on the discharge monitoring report forms as the measured value. A note must be included with the DMR indicating that the value is not quantifiable. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection.

If the measured concentration of TRC is greater than the water quality based effluent limitations and above the respective LOD specified in footnote [8] in any three (3) consecutive analyses, or any five (5) out of nine (9) analyses, then the discharger shall:

- (1) Determine the source of the parameter through an evaluation of sampling techniques, analytical/laboratory procedures, and waste streams (including internal waste streams); and re-examine the chlorination /dechlorination procedures.
- (2) The sampling and analysis for TRC shall be increased to 2 X weekly and remain at this increased sampling frequency until:
 - (a) The increased sampling frequency for TRC has been in place for at least five weeks;
 - (b) At least nine (9) samples have been taken under this increased sampling frequency; and
 - (c) The measured concentration of TRC is less than the LOD specified in footnote [8] in at least seven (7) out of the nine (9) most recent analyses.

- [8] The following EPA approved test 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 and EPA, if applicable.

Parameter	Test Method	LOD	LOQ
Arsenic	3113 B-2004	1 µg/l	3.2 µg/l
Arsenic	200.8, Rev. 5.4 (1994) SIM Mode	1.4 µg/l	4.5 µg/l
Arsenic	200.9, Rev. 2.2 (1994)	0.5 µg/l	1.6 µg/l
Cadmium	200.8, Rev. 5.4 (1994) SIM Mode	0.16 µg/l	0.5 µg/l
Cadmium	200.9, Rev. 2.2 (1994)	0.05 µg/l	0.016 µg/l
Chlorine, Total residual	4500-Cl D-2011, 4500-Cl E-2011, or 4500 Cl G-2011	0.02 mg/l	0.06 mg/l
Cyanide, Available*	OIA-1677-09 (available)	0.5 µg/l	2.0 µg/l
Cyanide, Available*	Kelada-01 (available)	2.5 µg/l	10 µg/l
Mercury	1631E	2.6 ng/l	7.8 ng/l
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l
*Free cyanide shall be reported as free cyanide but measured using one of the EPA approved test methods above for available cyanide.			

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

- [9] Sample preservation procedures and maximum allowable holding times for total cyanide, or available (free) cyanide are prescribed in Table II of 40 CFR Part 136.
- [10] Mercury monitoring shall be conducted 6 X annually 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.
- [11] The discharge of cooling tower blowdown is regulated by 40 CFR 423.13(d). 40 CFR 423.12(d)(1) prohibits the discharge of the 126 priority pollutants listed in Appendix A of this regulation in detectable amounts, with the exception of total zinc and total chromium, which have specific numeric limits. In accordance with 423.13(d)(3), instead of the monitoring specified in 40 CFR 122.48(b), compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of 40 CFR 423.12 may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final cooling tower blowdown discharge by the analytical methods in 40 CFR part 136.

The permittee has submitted data on December 5, 2024 that shows the 126 priority pollutants are not present in the discharge in detectable amounts. Compliance with the above limitations for the 126 priority pollutants (with the exception of zinc and chromium) in paragraph (d)(1) of 40 CFR 423.13 must be reported each time there is a change in the chemicals added for cooling tower maintenance and submitted with each permit renewal application.

- [12] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.
- [13] The permittee has a 3-year schedule of compliance, as outlined in Part I.G., in which to meet the final requirements for each of these parameters. The Interim requirements for a parameter are applicable until completion of the compliance schedule for that parameter.
- [14] Summer limitations apply from May 1 through November 30. Winter limitations apply from December 1 through April 30.
- [15] Effluent temperatures shall be monitored continuously, and measurements recorded, at a minimum, every hour. The highest single recorded measurement for each day shall be reported on the state monthly monitoring report for each day. The highest single recorded daily measurement shall be reported on the federal discharge monitoring report as the maximum daily temperature for that month.
- [16] The following conditions apply for temperature:
- (1) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
 - (2) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.
 - (3) The maximum temperature rise at any time or place above natural shall not exceed five (5) degrees Fahrenheit.
- [17] The discharge from Outfall 001 shall not exceed the maximum limits in the following table more than one percent (1%) of the hours in the twelve (12) month period ending with any month. At no time shall the water temperature of the discharge from Outfall 001 exceed the maximum limits in the following table by more than three degrees Fahrenheit (3°F).

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
°F	50	50	60	70	80	90	90	90	90	78	70	57

- [18] Total residual chlorine (TRC) must not be discharged from any single generating unit for more than two hours (120 minutes) per day (the "Duration") and not more than one unit in the plant may discharge total residual chlorine at any one time unless the discharger demonstrates that the unit cannot operate at or below this level or chlorination.
- [19] The permittee may use engineering calculations, such as those based on pump curves, to report flow.
- [20] COC's may be calculated as the cooling tower blowdown (CTBD) conductivity divided by the makeup water conductivity, and the permittee may use engineering calculations to estimate blowdown or makeup water conductivity during times when the conductivity measurement device is inoperable, being maintained, on holidays, or other infrequent circumstances. The permittee must report on the MMRs the number of hours in which COCs were calculated using estimated values.

2. The permittee is authorized to discharge from Outfall 009, located at Latitude 38° 32' 02", Longitude -87° 15' 15, in accordance with the terms and conditions of this permit[19]. The discharge is limited to stormwater and "other" WWTP wastewaters consisting of coal pile runoff, cooling tower blowdown, low volume wastewater, sanitary wastewater (Outfall 101), non-chemical metal cleaning wastewater, water storage tank overflows, and water treatment residuals. 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 White River. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3][4][10]

Outfall 009

Table 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow								
Effluent [5]	Report	Report	MGD	----	----	----	1 X Daily	24 Hr. Total
White River	Report	Report	MGD	----	----	----	1 X Daily	Gage [21]
Intake Unit 1 [17]	Report	Report	MGD	----	----	----	1 X Daily	24 Hr. Total
Intake Unit 2 [17]	Report	Report	MGD	----	----	----	1 X Daily	24 Hr. Total
Cycles of Conc. (COC) [18]								
Unit 3 Cooling Tower	Report	Report	Number	----	----	----	1 X Daily	Report
Unit 4 Cooling Tower	Report	Report	Number	----	----	----	1 X Daily	Report
TSS	----	----	----	29.7	98.1	mg/l	2 X Monthly	24-Hr. Comp.
Oil & Grease	----	----	----	5.3	6.4	mg/l	1 X Monthly	Grab
Copper [6]	----	----	----	0.044	0.075	mg/l	2 X Monthly	24-Hr. Comp.
Iron [4][6]	----	----	----	0.96	0.96	mg/l	2 X Monthly [22]	24-Hr. Comp.
TRC [7][8]	----	----	----	0.01	0.02	mg/l	1 X Weekly	Grab
TRC-Duration/Day [16]	----	120	Min/day	----	----	----	1 X Daily	Report
Ammonia (as N)								
Summer	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr Comp.
Winter	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr Comp.
Sulfate (Total)	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Total BOD ₅	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Boron [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Chloride	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Chromium, Total [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr.

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
								Comp.
Mercury [6][8][9]	----	----	----	12	20	ng/l	6 X Annually	Grab
Selenium [6][8]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Zinc [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
TDS	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Phosphorus	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Temperature [12][13][14]	----	----	----	Report	Report	°F	Continuous	Report
White River				Report	Report	°F	Daily	Gage [21]
Mixed River [15]				Report	Report	°F	Daily	Calculated
Whole Effluent Toxicity (WET) [20]								
Acute	----	----	----	----	Report	TUa	[20]	24-Hr. Comp.
Chronic	----	----	----	Report	----	Tuc	[20]	24-Hr. Comp.

Table 2

Parameter	Quality or Concentration				Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [11]	6.0	----	9.0	s.u.	1 X Weekly	Grab

- [1] See Part I.B. of the permit for the minimum narrative limitations.
- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of water treatment additives, including increased dosage that could significantly change the nature of or increase the discharge concentration, the permittee must apply for and receive approval from IDEM prior to such discharge to this Outfall. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/idem/forms/idem-forms-list/>.
- [3] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.
- [4] See Part III of the permit for additional requirements.

- [5] Effluent flow is to be measured continuously using a flow measuring device. The permittee may use engineering calculations to measure flow during times when the flow measurement device is inoperative.
- [6] The permittee shall measure and report the identified metal as total recoverable metal.
- [7] The water quality based effluent limit (WQBEL) for total residual chlorine (TRC) is less than the limit of quantitation (LOQ) as specified in footnote [8]. Compliance with this permit will be demonstrated if the effluent concentrations measured are less than the LOQ.

Effluent concentrations greater than or equal to the LOD but less than the Limit of Quantitation (LOQ), shall be reported on the discharge monitoring report forms as the measured value. A note must be included with the DMR indicating that the value is not quantifiable. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection.

If the measured concentration of TRC is greater than the water quality based effluent limitations and above the respective LOD specified in footnote [8] in any three (3) consecutive analyses, or any five (5) out of nine (9) analyses, then the discharger shall:

- (1) Determine the source of the parameter through an evaluation of sampling techniques, analytical/laboratory procedures, and waste streams (including internal waste streams); and re-examine the chlorination /dechlorination procedures.
- (2) The sampling and analysis for TRC shall be increased to 2 X weekly and remain at this increased sampling frequency until:
 - (a) The increased sampling frequency for TRC has been in place for at least five weeks;
 - (b) At least nine (9) samples have been taken under this increased sampling frequency; and
 - (c) The measured concentration of TRC is less than the LOD specified in footnote [8] in at least seven (7) out of the nine (9) most recent analyses.

- [8] The following EPA approved test 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 and EPA, if applicable.

Parameter	Test Method	LOD	LOQ
Chlorine, Total residual	4500-Cl D-2011, 4500-Cl E-2011, or 4500 Cl G-2011	0.02 mg/l	0.06 mg/l
Mercury	1631E	2.6 ng/l	7.8 ng/l
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

- [9] Mercury monitoring shall be conducted 6 X annually 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.
- [10] The discharge of cooling tower blowdown is regulated by 40 CFR 423.13(d). 40 CFR 423.12(d)(1) prohibits the discharge of the 126 priority pollutants listed in Appendix A of this regulation in detectable amounts, with the exception of total zinc and total chromium, which have specific numeric limits. In accordance with 423.13(d)(3), instead of the monitoring specified in 40 CFR 122.48(b), compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of 40 CFR 423.12 may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final cooling tower blowdown discharge by the analytical methods in 40 CFR part 136.

The permittee has submitted data on December 5, 2024 that shows the 126 priority pollutants are not present in the discharge in detectable amounts. Compliance with the above limitations for the 126 priority pollutants (with the exception of zinc and chromium) in paragraph (d)(1) of 40 CFR 423.13 must be reported each time there is a change in the chemicals added for cooling tower maintenance and submitted with each permit renewal application.

- [11] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

- [12] Effluent temperatures shall be monitored continuously, and measurements recorded, at a minimum, every hour. The highest single recorded measurement for each day shall be reported on the state monthly monitoring report for each day. The highest single recorded daily measurement shall be reported on the federal discharge monitoring report as the maximum daily temperature for that month.
- [13] The following conditions apply for temperature outside the mixing zone:
- (1) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
 - (2) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.
 - (3) The maximum temperature rise at any time or place above natural shall not exceed five (5) degrees Fahrenheit.
- [14] The discharge from Outfall 009, as determined at the edge of the mixing zone described in 327 IAC 2-1-4, shall not exceed the maximum limits in the following table more than one percent (1%) of the hours in the twelve (12) month period ending with any month. At no time shall the water temperature of the discharge from Outfall 001 exceed the maximum limits in the following table by more than three degrees Fahrenheit (3°F).

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
°F	50	50	60	70	80	90	90	90	90	78	70	57

- [15] The permittee will have the option of either meeting the above limits at the end of pipe, or by meeting the limits with a mixed river temperature that takes into account the mixing zone allowed by 327 IAC 2-1-6(b). The mixed river temperature is to be determined by employing the following mathematical model:

$$TMR = TU + (QE*(TE - TU))/(QS + QE)$$

where:

TMR = mixed river temperature (°F)
 TU = upstream river temperature (°F)
 TE = effluent temperature (°F)
 QE = effluent flow (MGD)
 QS = one-half of the Q_{7,10} low-flow value of the receiving stream (270.5 MGD) or one-half of the White River flow, taken at an appropriate USGS Gaging Station, in MGD.

- [16] Total residual chlorine (TRC) must not be discharged from any single generating unit for more than two hours (120 minutes) per day (the "Duration") and not more

than one unit in the plant may discharge total residual chlorine at any one time unless the discharger demonstrates that the unit cannot operate at or below this level or chlorination.

- [17] The permittee may use engineering calculations, such as those based on pump curves, to report flow.
- [18] COC's may be calculated as the cooling tower blowdown (CTBD) conductivity divided by the makeup water conductivity, and the permittee may use engineering calculations to estimate blowdown or makeup water conductivity during times when the conductivity measurement device is inoperable, being maintained, on holidays, or other infrequent circumstances. The permittee must report on the MMRs the number of hours in which COCs were calculated using estimated values.
- [19] The permittee shall notify IDEM at least 30 days prior to initiation of discharge through Outfall 009 by written correspondence to the Compliance Data Section of the Office of Water Quality.
- [20] The whole effluent toxicity (WET) testing requirements can be found in Part I.F. of the permit.
- [21] River flow and temperature measurements shall be taken from an appropriate USGS Gaging Station. The values of the flow and temperature to be reported are the highest observed during the 24-hour period. The maximum mixed river temperature of the day is to be reported separately.

If data from this USGS Gaging Station are not available in time for use in the submission of the monthly reports, the permittee may use flow and temperature data from USGS Gaging Station 03374000, White River in Petersburg, IN. If neither gaging station provides data, the permittee shall calculate the mixed river temperature using other valid data available for that month. If no data are available for an entire month due to gaging station issues, the permittee shall use NODI code "T" on the DMR. In such cases, the permittee must provide an explanatory comment on the DMR or attach a report detailing the substitutions or circumstances, including dates of monitor downtime, and maintain records of these actions.

- [22] The measurement shall be taken 2 X Monthly during discharge of metal cleaning waste.

3. 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 101, located at Latitude 38° 31' 58", Longitude -87° 14' 52. The discharge is limited to treated sanitary wastewater. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to mixing with other wastestreams and discharging via Outfall 001 or Outfall 009. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS

Internal Outfall 101

Table 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	----	----	----	2 X Monthly	24-Hr. Total
CBOD5	-----	-----	-----	30	45	mg/l	2 X Monthly	8-Hr. Comp.
<i>E. coli</i> [1]	-----	-----	-----	125 [2]	235 [3]	cfu/100ml	2 X Monthly	Grab

Table 2

Monitoring Requirements					
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
TRC [4]	0.5	----	mg/l	1 X Weekly	Grab

- [1] The *E. coli* limitations and monitoring requirements apply from April 1 through October 31 annually.
- [2] The monthly average *E. coli* value shall be calculated as a geometric mean. Per 327 IAC 5-10-6, the concentration of *E. coli* shall not exceed one hundred twenty-five (125) cfu or mpn per 100 milliliters as a geometric mean of the effluent samples taken in a calendar month. No samples may be excluded when calculating the monthly geometric mean.
- [3] If less than ten samples are taken and analyzed for *E. coli* in a calendar month, no samples may exceed two hundred thirty-five (235) cfu or mpn per 100 milliliters as a daily maximum. However, when ten (10) or more samples are taken and analyzed for *E. coli* in a calendar month, not more than ten percent (10%) of those samples may exceed two hundred thirty-five (235) cfu or mpn per 100 milliliters as a daily maximum. When calculating ten percent, the result must not be rounded up. In reporting for compliance purposes on the Discharge Monitoring Report (DMR) form, the permittee shall record the highest non-excluded value for the daily maximum.

- [4] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Chlorine, Total residual	4500-Cl D-2011, 4500-Cl E-2011, or 4500 Cl G-2011	0.02 mg/l	0.06 mg/l

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 002, located at Latitude 38° 31' 37", Longitude -87° 15' 11. The discharge is limited to air compressor cooling water, White River water from the Unit 1 and 2 intake (circulating water), intake screen strainer backwash, and stormwater Outfalls 003S, 025S and 026S. 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 White River. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3][9]

Outfall 002

Table 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency [6]	Sample Type
Flow [4]	Report	Report	MGD	----	----	----	1 X Daily	24-Hr. Total
TRC [5][6]								
Continuous [11]	----	----	----	0.01	0.02	mg/l	1 X Weekly	Grab
Intermittent [12]	----	----	----	----	0.2	mg/l	2 X Weekly	Grab
Chlorination Frequency [13]	----	4	times/day	----	----	---	1 X Monthly	Report
Chlorination Dose Duration [13]	----	40	minutes/dose	----	----	----	1 X Monthly	Report
Chlorination Dose Duration/Day [13]	----	120	minutes/day	----	----	----	1 X Monthly	Report
Temperature [10]								
Upstream	----	----	----	Report	Report	°F	1 X Daily	Gage
Effluent	----	----	----	Report	Report	°F	Continuous	Report
Aluminum [7]	----	----	----	----	Report	mg/l	1 X Monthly	Grab

Table 2

Parameter	Quality or Concentration				Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [8]	6.0	----	9.0	s.u.	1 X Monthly	Grab

- [1] See Part I.B. of the permit for the minimum narrative limitations.

- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of the approved water treatment additives, including increased dosage, that could significantly change the nature of or increase the discharge concentration, the permittee must apply for and receive approval from IDEM prior to such discharge to this Outfall. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/idem/forms/idem-forms-list/>.
- [3] See Part III of the permit for additional requirements.
- [4] The permittee may use engineering calculations such as pump capacity to measure flow.
- [5] The water quality based effluent limit (WQBEL) for TRC is less than the limit of quantitation (LOQ) as specified in footnote [6]. Compliance with this permit will be demonstrated if the effluent concentrations measured are less than the LOQ.

Effluent concentrations greater than or equal to the LOD but less than the Limit of Quantitation (LOQ), shall be reported on the discharge monitoring report forms as the measured value. A note must be included with the DMR indicating that the value is not quantifiable. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection.

If the measured concentration of TRC is greater than the water quality based effluent limitations and above the respective LOD specified in footnote [6] in any three (3) consecutive analyses, or any five (5) out of nine (9) analyses, then the discharger shall:

- (1) Determine the source of the parameter through an evaluation of sampling techniques, analytical/laboratory procedures, and waste streams (including internal waste streams); and re-examine the chlorination /dechlorination procedures.
- (2) The sampling and analysis for TRC shall be increased to 4 X Weekly and remain at this increased sampling frequency until:
 - (a) The increased sampling frequency for TRC has been in place for at least 2 weeks;
 - (b) At least nine (9) samples have been taken under this increased sampling frequency; and

- (c) The measured concentration of [6] is less than the LOD specified in footnote [6] in at least seven (7) out of the nine (9) most recent analyses.

- [6] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Chlorine, Total residual	4500-Cl D-2011, 4500-Cl E-2011, or 4500 Cl G-2011	0.02 mg/l	0.06 mg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

- [7] The permittee shall measure and report the identified metal in both total recoverable and dissolved form.
- [8] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.
- [9] Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.
- [10] Effluent temperatures shall be monitored continuously, and measurements recorded, at a minimum, every hour. The highest single recorded measurement for each day shall be reported on the state monthly monitoring report for each day. The highest single recorded daily measurement shall be reported on the federal discharge monitoring report as the maximum daily temperature for that month.
- [11] Continuous chlorination is considered as all occurrences that do not meet the definition of intermittent chlorination, as described in 327 IAC 2-1-6 Table 6-1, Footnote [6]. These water quality based effluent limits (WQBELs) are applicable any time that the discharge of chlorine does not meet this intermittent definition.

- [12] This daily maximum limit for total residual chlorine is only applicable if the discharge of chlorine is intermittent. As required by 327 IAC 2-1-6 Table 6-1, Footnote [6], to be considered an intermittent discharge, total residual chlorine shall not be detected in the discharge for a period of more than forty (40) minutes in duration, and such periods shall be separated by at least five (5) hours. Simultaneous multi-unit chlorination is permitted.
- [13] Samples are to be taken during expected peak effluent concentrations of chlorine. Monitoring is required only on days when chlorination occurs. The effluent limitations for TRC apply to peak concentrations occurring during periods of chlorination. Samples for TRC shall be taken at times expected to reflect peak chlorine concentrations based on previous experience. The duration is defined to be from the point of first detectable measurement to the point of last detectable measurement of TRC

- 5(a). During the period beginning on the effective date of the permit and lasting until relocation of the CCR landfill runoff to Outfall 010, the permittee is authorized to discharge from Outfall 007 located at Latitude 38° 31' 34", Longitude -87° 14' 40, in accordance with the terms and conditions of this permit. The discharge is limited to the CCR landfill (FP #63-02) runoff (001S) and stormwater discharge from 004S. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry to Lick Creek. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3]

Outfall 007

Table 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow [4]	Report	Report	MGD	----	----	----	1 X Daily	24 Hr. Total
TSS	----	----	----	30	100	mg/l	2 X Monthly	Grab
Ammonia [10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final								
Summer [5]	----	----	----	1.6	3.9	mg/l	2 X Monthly	24-Hr. Comp.
Winter [5]	----	----	----	3.2	7.7	mg/l	2 X Monthly	24-Hr. Comp.
Arsenic [6][7]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Total BOD5	----	----	----	Report	Report	mg/l	2 X Monthly	Grab
Boron [6][10]								
Interim	----	----	----	8.3	14	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	7.3	13	mg/l	2 X Monthly	24-Hr. Comp.
Cadmium [6][10]								
Interim	----	----	----	0.002	0.0035	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.0015	0.0025	mg/l	2 X Monthly	24-Hr. Comp.
Chloride [10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	320	550	mg/l	2 X Monthly	24-Hr. Comp.
Total Chromium [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Copper [6][10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.023	0.040	mg/l	2 X Monthly	24-Hr. Comp.
Free Cyanide [7][10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	Grab
Final	----	----	----	0.0049	0.0085	mg/l	2 X Monthly	Grab
Fluoride [10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	1.9	3.3	mg/l	2 X Monthly	24-Hr. Comp.
Iron [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Lead [6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Mercury [6][7]	----	----	----	12	20	ng/l	6 X Annually [8]	Grab

Nickel [6][10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.10	0.17	mg/l	2 X Monthly	24-Hr. Comp.
Selenium [6][7][10]								
Interim	----	----	----	0.033	0.057	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.0031	0.0075	mg/l	2 X Monthly	24-Hr. Comp.
Sulfate [10]								
Interim	----	----	----	1500	2600	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	1500	2500	mg/l	2 X Monthly	24-Hr. Comp.
Manganese [6][10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	3.9	6.7	mg/l	2 X Monthly	24-Hr. Comp.
Zinc [6][10]								
Interim	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Final	----	----	----	0.23	0.40	mg/l	2 X Monthly	24-Hr. Comp.
TDS	----	----	----	Report	Report	mg/l	2 X Monthly	Grab
Phosphorus	----	----	----	Report	Report	mg/l	2 X Monthly	Grab

Table 2

Parameter	Quality or Concentration				Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [9]	6.0	----	9.0	s.u.	2 X Monthly	Grab

- [1] See Part I.B. of the permit for the minimum narrative limitations.
- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of the approved water treatment additives, including increased dosage, that could significantly change the nature of or increase the discharge concentration, the permittee must apply for and receive approval from IDEM prior to such discharge to this Outfall. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/idem/forms/idem-forms-list/>.
- [3] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.
- [4] The permittee may use engineering calculations to measure flow.
- [5] Summer limitations apply from May 1 through November 30. Winter limitations apply from December 1 through April 30.

- [6] The permittee shall measure and report the identified metal as total recoverable metal.
- [7] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Cadmium	200.8, Rev. 5.4 (1994) SIM Mode	0.16 µg/l	0.5 µg/l
Cadmium	200.9, Rev. 2.2 (1994)	0.05 µg/l	0.016 µg/l
Mercury	1631E	2.6 ng/l	7.8 ng/l
Arsenic	3113 B-2004	1 µg/l	3.2 µg/l
Arsenic	200.9, Rev. 2.2 (1994)	0.5 µg/l	1.6 µg/l
Arsenic	200.8, Rev. 5.4 (1994)	1.4 µg/l	4.5 µg/l
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l
Cyanide, Available*	OIA-1677-09 (available)	0.5 µg/l	2.0 µg/l
Cyanide, Available*	Kelada-01 (available)	2.5 µg/l	10 µg/l
*Free cyanide shall be reported as free cyanide but measured using one of the EPA approved test methods above for available cyanide.			

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

- [8] Mercury monitoring shall be conducted 6 X annually 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.
- [9] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.
- [10] The permittee has a 3-year schedule of compliance, as outlined in Part I.G., in which to meet the final requirements for each of these parameters. The Interim requirements for a parameter are applicable until completion of the compliance schedule for that parameter.

- 5(b). During the period beginning after relocation of the CCR landfill runoff to Outfall 010, the permittee is authorized to discharge stormwater from Outfall 007 located at Latitude 38° 31' 34", Longitude -87° 14' 40, in accordance with the terms and conditions of this permit. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lick Creek. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3]
Outfall 007

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Monitoring Requirements</u>	
			<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	MGD	1 X Daily	Estimate Total
Total Suspended Solids	Report	mg/l	1 X Daily	Grab
pH	Report	s.u.	1 X Daily	Grab
Oil & Grease	Report	mg/l	1 X Daily	Grab
COD	Report	mg/l	1 X Daily	Grab
CBOD ₅	Report	mg/l	1 X Daily	Grab
Total Kjeldahl Nitrogen	Report	mg/l	1 X Daily	Grab
Nitrate plus Nitrite Nitrogen	Report	mg/l	1 X Daily	Grab
Total Phosphorus	Report	mg/l	1 X Daily	Grab
Selenium [4][5]	Report	mg/l	1 X Daily	Grab
Boron [4]	Report	mg/l	1 X Daily	Grab
Sulfate	Report	mg/l	1 X Daily	Grab

- [1] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.

- [2] All samples shall be collected from the discharge resulting from a storm event.

For each sample taken, the permittee shall record the duration and total rainfall of the storm event, the number of hours between beginning of the storm measured and the end of the previous measurable rain event, and the outside temperature at the time of sampling.

A grab sample shall be taken during the first thirty (30) minutes of the discharge (or as soon thereafter as practicable).

- [3] See Part I.B. of the permit for the minimum narrative limitations.

- [4] The permittee shall measure and report the identified metal as total recoverable metal.

- [5] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

6. The permittee is authorized to discharge from Outfall 010 located at Latitude 38° 31' 27", Longitude -87° 15' 36, in accordance with the terms and conditions of this permit, beginning at the initiation of discharge [9] to the White River until the expiration of the permit. The discharge is limited to the CCR landfill (FP #63-02) runoff (001S) and stormwater discharge from 004S. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry to the White River. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3]

Outfall 010

Table 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow [4]	Report	Report	MGD	----	----	----	1 X Daily	24 Hr. Total
TSS	----	----	----	30	100	mg/l	2 X Monthly	Grab
Boron [5]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Chloride	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Fluoride	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Mercury [5][6]	----	----	----	Report	Report	ng/l	6 X Annually [7]	Grab
Selenium [5][6]	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.
Sulfate	----	----	----	Report	Report	mg/l	2 X Monthly	24-Hr. Comp.

Table 2

Parameter	Quality or Concentration				Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [8]	6.0	----	9.0	s.u.	2 X Monthly	Grab

- [1] See Part I.B. of the permit for the minimum narrative limitations.
- [2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of the approved water treatment additives, including increased dosage, that could significantly change the nature of or increase the discharge concentration, the permittee must apply for and receive approval from IDEM prior to such discharge to this Outfall. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: <https://www.in.gov/idem/forms/idem-forms-list/>.

- [3] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.
- [4] The permittee may use engineering calculations to measure flow.
- [5] The permittee shall measure and report the identified metal as total recoverable metal.
- [6] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Mercury	1631E	2.6 ng/l	7.8 ng/l
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

- [7] Mercury monitoring shall be conducted 6 X annually 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.
- [8] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.
- [9] The permittee shall notify IDEM at least 30 days prior to initiation of discharge through Outfall 010 by written correspondence to the Compliance Data Section of the Office of Water Quality. Initiation of discharge does not include leak or integrity testing of the piping and activities associated with commissioning.

7. The permittee is authorized to discharge from the outfalls listed below in accordance with the terms and conditions of this permit. The discharge is limited to stormwater and authorized non-stormwater. The permittee is authorized to discharge from 24 stormwater outfalls identified as 003S, 006S, 007S, 008S, 009S, 010S, 011S, 012S, 013S, 014S, 015A, 016S, 018S, 019S, 020S, 022S, 023S, 025S, 026S, 027S, 028S, 029S, 030S and 031S. The following outfalls shall be sampled: 006S (representative of 007S, 008S, 009S, 022S and 023S); 011S (representative of 010S, 012S, 013S, 014S, 015A, 018S, 019S and 020S); 016S; 025S (representative of 026S); and 030S (representative of 003S, 027S, 028S and 029S). Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lick Creek and the White River. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3][4]

Representative Outfalls 006S, 011S, 016S, 025S, 030S

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Monitoring Requirements</u>	
			<u>Measurement Frequency [5]</u>	<u>Sample Type</u>
Flow	Report	MGD	Semi-Annually	Estimate Total
Total Suspended Solids	Report	mg/l	Semi-Annually	Grab
pH	Report	s.u.	Semi-Annually	Grab
Oil & Grease	Report	mg/l	Semi-Annually	Grab
COD	Report	mg/l	Semi-Annually	Grab
Arsenic [6]	Report	mg/l	Semi-Annually	Grab
Cadmium [6]	Report	mg/l	Semi-Annually	Grab
Total Chromium [6]	Report	mg/l	Semi-Annually	Grab
Copper [6]	Report	mg/l	Semi-Annually	Grab
Lead [6]	Report	mg/l	Semi-Annually	Grab
Nickel [6]	Report	mg/l	Semi-Annually	Grab
Selenium [6][7]	Report	mg/l	Semi-Annually	Grab
Sulfate	Report	mg/l	Semi-Annually	Grab

- [1] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.

- [2] All samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. There shall be a minimum of three (3) months between reported sampling events.

For each sample taken, the permittee shall record the duration and total rainfall of the storm event, the number of hours between beginning of the storm measured and the end of the previous measurable rain event, and the outside temperature at the time of sampling.

A grab sample shall be taken during the first thirty (30) minutes of the discharge (or as soon thereafter as practicable).

- [3] See Part I.B. of the permit for the minimum narrative limitations.
- [4] The authorized non-stormwater discharges are included in Part I.D.4.j of this permit.
- [5] The first sampling event is to occur between January and June and the associated DMR / MMR submitted no later than July 28th. The second sampling event is to occur between July and December and the associated DMR / MMR submitted no later than January 28th.
- [6] The permittee shall measure and report the identified metal as total recoverable metal.
- [7] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

8. The permittee is authorized to discharge from the outfalls listed below in accordance with the terms and conditions of this permit. The discharge is limited to stormwater and authorized non-stormwater. The permittee is authorized to discharge from Outfall 031S. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lick Creek. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2][3][4]
Outfall 031S

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Monitoring Requirements</u>	
			<u>Measurement Frequency [5]</u>	<u>Sample Type</u>
Flow	Report	MGD	Semi-Annually	Estimate Total
Total Suspended Solids	Report	mg/l	Semi-Annually	Grab
pH	Report	s.u.	Semi-Annually	Grab
Oil & Grease	Report	mg/l	Semi-Annually	Grab
COD	Report	mg/l	Semi-Annually	Grab
Arsenic [6]	Report	mg/l	Semi-Annually	Grab
Cadmium [6]	Report	mg/l	Semi-Annually	Grab
Total Chromium [6]	Report	mg/l	Semi-Annually	Grab
Copper [6]	Report	mg/l	Semi-Annually	Grab
Lead [6]	Report	mg/l	Semi-Annually	Grab
Nickel [6]	Report	mg/l	Semi-Annually	Grab
Selenium [6][7]	Report	mg/l	Semi-Annually	Grab
Sulfate	Report	mg/l	Semi-Annually	Grab
Boron	Report	mg/l	Semi-Annually	Grab
Free Cyanide [7]	Report	µg/l	Semi-Annually	Grab

- [1] The Stormwater Monitoring and Non Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.

- [2] All samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. There shall be a minimum of three (3) months between reported sampling events.

For each sample taken, the permittee shall record the duration and total rainfall of the storm event, the number of hours between beginning of the storm measured and the end of the previous measurable rain event, and the outside temperature at the time of sampling.

A grab sample shall be taken during the first thirty (30) minutes of the discharge (or as soon thereafter as practicable).

- [3] See Part I.B. of the permit for the minimum narrative limitations.

- [4] The authorized non-stormwater discharges are included in Part I.D.4.j of this permit.
- [5] The first sampling event is to occur between January and June and the associated DMR / MMR submitted no later than July 28th. The second sampling event is to occur between July and December and the associated DMR / MMR submitted no later than January 28th.
- [6] The permittee shall measure and report the identified metal as total recoverable metal.
- [7] The following EPA approved test 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 and EPA, if applicable.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
Selenium	200.8, Rev. 5.4 (1994)	2.1 µg/l	3.1 µg/l
Selenium	200.9, Rev. 2.2 (1994)	0.6 µg/l	1.9 µg/l
Cyanide, Available*	OIA-1677-09 (available)	0.5 µg/l	2.0 µg/l
Cyanide, Available*	Kelada-01 (available)	2.5 µg/l	10 µg/l
*Free cyanide shall be reported as free cyanide but measured using one of the EPA approved test methods above for available cyanide.			

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, 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.

B. MINIMUM NARRATIVE LIMITATIONS

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

1. including waters within the mixing zone, to contain substances, materials, floating debris, oil, scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges that do any of the following:
 - a. will settle to form putrescent or otherwise objectionable deposits;
 - b. are in amounts sufficient to be unsightly or deleterious;
 - c. produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
 - d. are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;
 - e. are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.
2. outside the mixing zone, to contain substances in concentrations that on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge flow and shall be taken at times which reflect the full range and concentration of effluent parameters normally expected to be present. Samples shall not be taken at times to avoid showing elevated levels of any parameters.

2. Monthly Reporting

The permittee shall submit monitoring reports to the Indiana Department of Environmental Management (IDEM) containing results obtained during the previous month and shall be submitted no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: <https://cdx.epa.gov/>. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit. See Part II.C.10 of this permit for Future Electronic Reporting Requirements.

- a. Calculations that require averaging of measurements of daily values (both concentrations and mass) shall use an arithmetic mean, except the monthly average for *E. coli* shall be calculated as a geometric mean.
- b. Daily effluent values (both mass and concentration) that are less than the LOQ that are used to determine the monthly average effluent level shall be accommodated in calculation of the average using statistical methods that have been approved by the Commissioner.
- c. Effluent concentrations less than the LOD shall be reported on the Discharge Monitoring Report (DMR) forms as < (less than) the value of the LOD. For example, if a substance is not detected at a concentration of 0.1 µg/l, report the value as <0.1 µg/l.
- d. Effluent concentrations greater than or equal to the LOD and less than the LOQ that are reported on a DMR shall be reported as the actual value and annotated on the DMR to indicate that the value is not quantifiable.
- e. Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.
- f. Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported as the calculated value.

3. Definitions

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

The monthly average discharge limitation is the highest allowable average monthly discharge for any calendar month.

- b. "Daily Discharge" means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that reasonably represents the calendar day for the purposes of sampling.
- c. "Daily Maximum" means the maximum allowable daily discharge for any calendar day.
- d. A "24-hour composite sample" means a sample consisting of at least 3 individual flow-proportioned samples of wastewater, taken by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 24-hour period and which are combined prior to analysis. A flow-proportioned composite sample may be obtained by:
- (1) recording the discharge flow rate at the time each individual sample is taken,
 - (2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,
 - (3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,
 - (4) then multiply the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.
- e. "Concentration" means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this permit, concentration values shall be expressed in milligrams per liter (mg/l).

- f. The "Regional Administrator" is defined as the Region 5 Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.
- g. The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, which is located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204.
- h. "Limit of Detection" or "LOD" means the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix.
- i. "Limit of Quantitation" or "LOQ" means a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also sometimes called limit of quantification or quantification level.
- j. "Method Detection Level" or "MDL" means the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by procedure set forth in 40 CFR 136, Appendix B. The method detection level or MDL is equivalent to the LOD.
- k. "Grab Sample" means a sample which is taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without considerations of time.
- l. A "8-hour composite sample" means a sample consisting of at least 3 individual flow-proportioned samples of wastewater, taken by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 8-hour period and which are combined prior to analysis. A flow-proportioned composite sample may be obtained by:
 - (1) recording the discharge flow rate at the time each individual sample is taken,
 - (2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,

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

4. Test Procedures

The analytical and sampling methods used shall conform to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. Different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency. When more than one test procedure is approved for the purposes of the NPDES program under 40 CFR 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv).

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall maintain records of all monitoring information and monitoring activities, including:

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

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of this monitoring shall be included in the calculation and reporting of the values required in the monthly Discharge Monitoring Report (DMR) and Monthly Monitoring Report (MMR). Such increased frequency shall also be indicated. Other monitoring data not specifically required in this permit (such as internal process or internal waste

stream data) which is collected by or for the permittee need not be submitted unless requested by the Commissioner.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three years shall be extended:

- a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or
- b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

D. STORMWATER MONITORING AND NON-NUMERIC EFFLUENT LIMITS

The permittee shall implement the non-numeric permit conditions in this Section of the permit for the entire site as it relates to stormwater associated with industrial activity regardless which outfall the stormwater is discharged from.

1. Control Measures and Effluent Limits

In the technology-based limits included in Part D.2-4., the term “minimize” means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

2. Control Measures

Select, design, install, and implement control measures (including best management practices) to address the selection and design considerations in Part D.3 to meet the non-numeric effluent limits in Part D.4. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer’s specifications. Any deviation from the manufacturer’s specifications shall be documented. If the control measures are not achieving their intended effect in minimizing pollutant discharges, the control measures must be modified as expeditiously as practicable. Regulated stormwater discharges from the facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.

3. Control Measure Selection and Design Considerations

When selecting and designing control measures consider the following:

- a. preventing stormwater from coming into contact with polluting materials is generally more effective, and cost-effective, than trying to remove pollutants from stormwater;
- b. use of control measures in combination is more effective than use of control measures in isolation for minimizing pollutants in stormwater discharge;
- c. assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;

- d. minimizing impervious areas at your facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches), can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care must be taken to avoid groundwater contamination;
- e. flow can be attenuated by use of open vegetated swales and natural depressions;
- f. conservation and/or restoration of riparian buffers will help protect streams from stormwater runoff and improve water quality; and
- g. use of treatment interceptors (e.g. swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

4. Technology-Based Effluent Limits (BPT/BAT/BCT): Non-Numeric Effluent Limits:

a. Minimize Exposure

Minimize the exposure of raw, final, or waste materials to rain, snow, snowmelt, and runoff. To the extent technologically available and economically practicable and achievable, either locate industrial materials and activities inside or protect them with storm resistant coverings in order to minimize exposure to rain, snow, snowmelt, and runoff (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, pay particular attention to the following areas:

Loading and unloading areas: locate in roofed or covered areas where feasible; use grading, berming, or curbing around the loading area to divert run-on; locate the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems.

Material storage areas: locate indoors, or in roofed or covered areas where feasible; install berms/dikes around these areas; use dry cleanup methods.

Note: Industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving waters.

b. Good Housekeeping

Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and stowing materials in appropriate containers.

As part of the developed good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

c. Maintenance

Maintain all control measures which are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If control measures need to be replaced or repaired, make the necessary repairs or modifications as expeditiously as practicable.

d. Spill Prevention and Response Procedures

You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum, you must implement:

- (1) Procedures for plainly labeling containers (e.g., "Used Oil", "Spent Solvents", "Fertilizers and Pesticides", etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- (2) Preventive measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

- (3) Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team;
- (4) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available;
- (5) Procedures for documenting where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfalls that would be affected by such spills and leaks; and
- (6) A procedure for documenting all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance.

e. Erosion and Sediment Controls

Through the use of structural and/or non-structural control measures stabilize, and contain runoff from, exposed areas to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions to meet this limit, place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to check out information from both the State and EPA websites. The following two websites are given as information sources:

<https://www.in.gov/idem/stormwater/resources/indiana-storm-water-quality-manual/>

and

<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

f. Management of Runoff

Divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff, to minimize pollutants in the discharge.

g. Salt Storage Piles or Piles Containing Salt

Enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. You must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged.

h. Waste, Garbage, and Floatable Debris

Ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

i. Employee Training

Train all employees who work in areas where industrial material or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team. Training must cover the specific control measures used to achieve the effluent limits in this part, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit.

j. Non-Stormwater Discharges

You must determine if any non-stormwater discharges not authorized by an NPDES permit exist. Any non-stormwater discharges discovered must either be eliminated or modified into this permit. The following non-storm water discharges are authorized and must be documented in the Stormwater Pollution Prevention Plan:

- Discharges from fire-fighting activities;
- Fire Hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash water where no detergents are used and no spills or leaks of toxic or hazardous material have occurred (unless all spilled material has been removed);
- Routine external building washdown that does not use detergents;
- Uncontaminated groundwater or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from cooling towers (e.g., "piped cooling tower blowdown or drains);
- Vehicle wash- waters where uncontaminated water without detergents or solvents is utilized; and
- Runoff from the use of dust suppressants approved for use by IDEM.

k. Dust Generation and Vehicle Tracking of Industrial Materials

You must minimize generation of dust and off-site tracking of raw, final, or waste materials.

l. Fugitive Dust Emission.

Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, consider procedures such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.

m. Delivery Vehicles

Minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site. Consider procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.

n. Fuel Oil Unloading Areas

Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Consider using containment curbs in unloading areas, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

o. Chemical Loading and Unloading

Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Consider using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and loading and unloading in covered areas and storing chemicals indoors.

p. Miscellaneous Loading and Unloading Areas

Minimize contamination of precipitation or surface runoff from loading and unloading areas. Consider covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.

q. Liquid Storage Tanks

Minimize contamination of surface runoff from aboveground liquid storage tanks. Consider protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.

r. Large Bulk Fuel Storage Tanks

Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). You must also comply with applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

s. Spill Reduction Measures

Minimize the potential for an oil or chemical spill, or reference the appropriate part of your SPCC plan. Visually inspect as part of your routine facility inspection the structural integrity of all aboveground tanks, pipelines, pumps, and related equipment that may be exposed to stormwater, and make any necessary repairs immediately.

t. Oil-Bearing Equipment in Switchyards

Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Consider using level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.

u. Residue-Hauling Vehicles

Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.

v. Ash Loading Areas

Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.

w. Areas Adjacent to Disposal Ponds or Landfills

Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

x. Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites

Minimize the potential for contamination of runoff from these areas.

5. Annual Review

At least once every twelve (12) months, you must review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limitations in this permit. You must document the results of your review in a report that shall be retained within the SWPPP. You must also submit the report to the Industrial NPDES Permit Section, as well as the Compliance Branch, on an annual basis. The report may be submitted by email to the Industrial NPDES Permit Section at OWQWWPER@idem.in.gov and to the Compliance Branch at wwReports@idem.in.gov. The email subject line should include the NPDES Permit # and the type of report being submitted (Annual Stormwater Report). The permittee's first annual review report will be due twelve (12) months from the effective date of the permit. All subsequent annual review reports will be due no later than the anniversary of the effective date of the permit.

6. Corrective Actions – Conditions Requiring Review

- a. If any of the following conditions occur, you must review and revise the selection, design, installation, and implementation of your control measures to ensure that the condition is eliminated and will not be repeated:
- (1) an unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this NPDES permit) occurs at this facility;
 - (2) it is determined that your control measures are not stringent enough for the discharge to meet applicable water quality standards;

- (3) it is determined in your routine facility inspection, an inspection by EPA or IDEM, comprehensive site evaluation, or the Annual Review required in Part D.5 that modifications to the control measures are necessary to meet the effluent limits in this permit or that your control measures are not being properly operated and maintained; or
 - (4) Upon written notice by the Commissioner that the control measures prove to be ineffective in controlling pollutants in stormwater discharges exposed to industrial activity.
- b. If construction or a change in design, operation, or maintenance at your facility significantly changes the nature of pollutants discharged in stormwater from your facility, or significantly increases the quantity of pollutants discharged, you must review and revise the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limits in this permit.

7. Corrective Action Deadlines

You must document your discovery of any of the conditions listed in Part I.D.6 within thirty (30) days of making such discovery. Subsequently, within one-hundred and twenty (120) days of such discovery, you must document any corrective action(s) to be taken to eliminate or further investigate the deficiency or if no corrective action is needed, the basis for that determination. Specific documentation required within 30 and 120 days is detailed below. If you determine that changes to your control measures are necessary following your review, any modifications to your control measures must be made before the next storm event if possible, or as soon as practicable following that storm event. These time intervals are not grace periods, but schedules considered reasonable for the documenting of your findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

8. Corrective Action Report

- a. Within 30 days of a discovery of any condition listed in Part I.D.6, you must document the following information:
- (1) Brief description of the condition triggering corrective action;
 - (2) Date condition identified; and
 - (3) How deficiency identified.

- b. Within 120 days of discovery of any condition listed in Part I.D.6, you must document the following information:
- (1) Summary of corrective action taken or to be taken (or, for triggering events identified in Part I.D.6.b.(1), where you determine that corrective action is not necessary, the basis for this determination)
 - (2) Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
 - (3) Date corrective action initiated; and
 - (4) Date corrective action completed or expected to be completed.

9. Inspections

The inspections in this Part must be conducted at this facility when the facility is operating. Any corrective action required as a result of an inspection or evaluation conducted under Part I.D.9. must be performed consistent with Part I.D.6 of this permit.

a. Monthly Site Compliance Inspection

The following areas shall be inspected monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short-term material storage areas.

Areas contributing to a stormwater discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural stormwater management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.

b. Quarterly Routine Facility Inspections

At least once during the calendar year, a routine facility inspection must be conducted while a discharge is occurring.

1. Routine Facility Inspection - At a minimum, quarterly routine inspections of the stormwater management measures and stormwater run-off conveyances. The routine inspections must be performed by qualified personnel with at least one member of your stormwater pollution prevention team.
2. Routine Facility Inspection Documentation – You must document the findings of each routine facility inspection performed and maintain this documentation within your SWPPP or have the on-site record keeping location referenced in the SWPPP. At a minimum, your documentation must include:
 - (A) The inspection date and time;
 - (B) The name(s) and signature(s) of the inspectors;
 - (C) Weather information and a description of any discharges occurring at the time of the inspection;
 - (D) Any previously unidentified discharges of pollutants from the site;
 - (E) Any control measures needing maintenance or repairs;
 - (F) Any failed control measures that need replacement;
 - (G) Any incidents of noncompliance observed; and
 - (H) Any additional control measures needed to comply with the permit requirements.

c. Annual Comprehensive Site Inspections

Comprehensive Site Inspection - Qualified personnel and at least one member of your Pollution Prevention Team shall conduct a comprehensive site inspection, at least once per calendar year, to confirm the accuracy of the description of potential pollution sources contained in the plan, determine the effectiveness of the plan, and assess compliance with the permit. Each Comprehensive Site Inspection shall include:

1. Each Comprehensive Site Inspection shall address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitator, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Considering monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material loss due to wind or stormwater runoff.
2. Based on the results of the inspection, the description of potential pollutant sources identified in the SWPPP in accordance with Part I.E.2.b of this permit and pollution prevention measures and controls identified in the SWPPP in accordance with Part I.D.4. of this permit shall be revised as appropriate within the timeframes contained in Part I.D.7 of this permit.
3. A report summarizing the scope of the inspection, personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the stormwater pollution prevention plan, and actions taken in accordance with the above paragraph must be documented and either contained in, or have on-site record keeping location referenced in, the SWPPP at least 3 years after the date of the inspection. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the stormwater pollution prevention plan and this permit. The report shall be signed in accordance with the signatory requirements of Part II.C.6 of this permit.
4. Where the inspection schedules overlap under this section, the Comprehensive Site Inspection may be conducted in place of one such inspection.

E. STORMWATER POLLUTION PREVENTION PLAN

1. Development of Plan

Within 12 months from the effective date of this permit, the permittee is required to revise and update the current Stormwater Pollution Prevention Plan (SWPPP) for the permitted facility. The plan shall at a minimum include the following:

- a. Identify potential sources of pollution, which may reasonably be expected to affect the quality of stormwater discharges associated with industrial activity from the facility. Stormwater associated with industrial activity (defined in 40 CFR 122.26(b)(14)) includes, but is not limited to, the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or materials storage areas at an industrial plant;
- b. Describe practices and measure to be used in reducing the potential for pollutants to be exposed to stormwater; and
- c. Assure compliance with the terms and conditions of this permit.

2. Contents

The plan shall include, at a minimum, the following items:

- a. Pollution Prevention Team -The plan shall list, by position title, the member or members of the facility organization as members of a Stormwater Pollution Prevention Team who are responsible for developing the stormwater pollution prevention plan (SWPPP) and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each stormwater pollution prevention team member. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and your SWPPP.
- b. Description of Potential Pollutant Sources – The plan shall provide a description of areas at the site exposed to industrial activity and have a reasonable potential for stormwater to be exposed to pollutants. The plan shall identify all activities and significant materials (defined in 40 CFR 122.26(b)), which may potentially be significant pollutant sources. As a minimum, the plan shall contain the following:

- (1) A soils map indicating the types of soils found on the facility property and showing the boundaries of the facility property.
- (2) A graphical representation, such as an aerial photograph or site layout maps, drawn to an appropriate scale, which contains a legend and compass coordinates, indicating, at a minimum, the following:
 - (A) All on-site stormwater drainage and discharge conveyances, which may include pipes, ditches, swales, and erosion channels, related to a stormwater discharge.
 - (B) Known adjacent property drainage and discharge conveyances, if directly associated with run-off from the facility.
 - (C) All on-site and known adjacent property water bodies, including wetlands and springs.
 - (D) An outline of the drainage area for each outfall.
 - (E) An outline of the facility property, indicating directional flows, via arrows, of surface drainage patterns.
 - (F) An outline of impervious surfaces, which includes pavement and buildings, and an estimate of the impervious and pervious surface square footage for each drainage area placed in a map legend.
 - (G) On-site injection wells, as applicable.
 - (H) On-site wells used as potable water sources, as applicable.
 - (I) All existing major structural control measures to reduce pollutants in stormwater run-off.
 - (J) All existing and historical underground or aboveground storage tank locations, as applicable.
 - (K) All permanently designated plowed or dumped snow storage locations.
 - (L) All loading and unloading areas for solid and liquid bulk materials.

- (M) All existing and historical outdoor storage areas for raw materials, intermediary products, final products, and waste materials. Include materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities.
 - (N) All existing or historical outdoor storage areas for fuels, processing equipment, and other containerized materials, for example, in drums and totes.
 - (O) Outdoor processing areas.
 - (P) Dust or particulate generating process areas.
 - (Q) Outdoor assigned waste storage or disposal areas.
 - (R) Pesticide or herbicide application areas.
 - (S) Vehicular access roads.
 - (T) Identify any storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operation, etc., and could result in a discharge of pollutants.
 - (U) The mapping of historical locations is only required if the historical locations have a reasonable potential for stormwater exposure to historical pollutants.
- (3) An area site map that indicates:
- (A) The topographic relief or similar elevations to determine surface drainage patterns;
 - (B) The facility boundaries;
 - (C) All receiving waters;

- (D) All known drinking water wells; and includes at a minimum, the features in clauses (A), (C), and (D) within a one-fourth (1/4) mile radius beyond the property boundaries of the facility. This map must be to scale and include a legend and compass coordinates.
- (4) A narrative description of areas that generate stormwater discharges exposed to industrial activity including descriptions for any existing or historical areas listed in subdivision 2.b.(2)(J) through (T) of this Part, and any other areas thought to generate stormwater discharges exposed to industrial activity. The narrative descriptions for each identified area must include the following:
- (A) Type and typical quantity of materials present in the area.
 - (B) Methods of storage, including presence of any secondary containment measures.
 - (C) Any remedial actions undertaken in the area to eliminate pollutant sources or exposure of stormwater to those sources. If a corrective action plan was developed, the type of remedial action and plan date shall be referenced.
 - (D) Any significant release or spill history dating back a period of three (3) years from the effective date of this permit, in the identified area, for materials spilled outside of secondary containment structures and impervious surfaces in excess of their reportable quantity, including the following:
 - i. The date and type of material released or spilled.
 - ii. The estimated volume released or spilled.
 - iii. A description of the remedial actions undertaken, including disposal or treatment.

Depending on the adequacy or completeness of the remedial actions, the spill history shall be used to determine additional pollutant sources that may be exposed to stormwater. In subsequent permit terms, the history shall date back for a period of five (5) years from the date of the permit renewal application.

- (E) Where the chemicals or materials have the potential to be exposed to stormwater discharges, the descriptions for each identified area must include a risk identification analysis of chemicals or materials stored or used within the area. The analysis must include the following:
 - i. Toxicity data of chemicals or materials used within the area, referencing appropriate material safety data sheet information locations.
 - ii. The frequency and typical quantity of listed chemicals or materials to be stored within the area.
 - iii. Potential ways in which stormwater discharges may be exposed to listed chemicals and materials.
 - iv. The likelihood of the listed chemicals and materials to come into contact with water.
- (5) A narrative description of existing and planned management practices and measures to improve the quality of stormwater run-off entering a water of the state. Descriptions must be created for existing or historical areas listed in subdivision 2.b.(2)(J) through (T) and any other areas thought to generate stormwater discharges exposed to industrial activity. The description must include the following:
 - (A) Any existing or planned structural and nonstructural control practices and measures.
 - (B) Any treatment the stormwater receives prior to leaving the facility property or entering a water of the state.
 - (C) The ultimate disposal of any solid or fluid wastes collected in structural control measures other than by discharge.
 - (D) Describe areas that due to topography, activities, or other factors have a high potential for significant soil erosion.
 - (E) Document the location of any storage piles containing salt used for deicing.

- (F) Information or other documentation required under Part I.E.2(d) of this permit.
- (6) The results of stormwater monitoring. The monitoring data must include completed field data sheets, chain-of-custody forms, and laboratory results. If the monitoring data are not placed into the facility's SWPPP, the on-site location for storage of the information must be reference in the SWPPP.
- (7) Drainage Area Site Map. Document in your SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).
- (8) Documentation of Good Housekeeping Measures. You must document in your SWPPP the good housekeeping measures implemented to meet the effluent limits in Part I.D.4 of this NPDES permit.
- c. Non-Stormwater Discharges – You must document that you have evaluated for the presence of non-stormwater discharges not authorized by an NPDES permit. Any non-stormwater discharges have either been eliminated or incorporated into this permit. Documentation of non-stormwater discharges shall include:
- (1) A written non-stormwater assessment, including the following:
- (A) A certification letter stating that stormwater discharges entering a water of the state have been evaluated for the presence of illicit discharges and non-stormwater contributions.
- (B) Detergent or solvent-based washing of equipment or vehicles that would allow washwater additives to enter any stormwater only drainage system shall not be allowed at this facility unless appropriately permitted under this NPDES permit.

- (C) All interior maintenance area floor drains with the potential for maintenance fluids or other materials to enter stormwater only storm sewers must be either sealed, connected to a sanitary sewer with prior authorization, or appropriately permitted under this NPDES permit. The sealing, sanitary sewer connecting, or permitting of drains under this item must be documented in the written non-stormwater assessment program.
 - (D) The certification shall include a description of the method used, the date of any testing, and the on-site drainage points that were directly observed during the test.
- d. General Requirements – The SWPPP must meet the following general requirements:
- (1) The plan shall be certified by a qualified professional. The term qualified professional means an individual who is trained and experienced in water treatment techniques and related fields as may be demonstrated by state registration, professional certification, or completion of course work that enable the individual to make sound, professional judgments regarding stormwater control/treatment and monitoring, pollutant fate and transport, and drainage planning.
 - (2) The plan shall be retained at the facility and be available for review by a representative of the Commissioner upon request. IDEM may provide access to portions of your SWPPP to the public.
 - (3) The plan must be revised and updated as required. Revised and updated versions of the plan must be implemented on or before three hundred sixty-five (365) days from the effective date of this permit. The Commissioner may grant an extension of this time frame based on a request by the person showing reasonable cause.
 - (4) If the permittee has other written plans, required under applicable federal or state law, such as operation and maintenance, spill prevention control and countermeasures (SPCC), or risk contingency plans, which fulfill certain requirements of an SWPPP, these plans may be referenced, at the permittee's discretion, in the appropriate sections of the SWPPP to meet those section requirements.

- (5) The permittee may combine the requirements of the SWPPP with another written plan if:
 - (A) The plan is retained at the facility and available for review;
 - (B) All the requirements of the SWPPP are contained within the plan; and
 - (C) A separate, labeled section is utilized in the plan for the SWPPP requirements.

F. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

To adequately assess the effects of the effluent on aquatic life, the permittee is required by this section of the permit to conduct chronic whole effluent toxicity (WET) testing. Part I.F.1. of this permit describes the testing procedures and Part I.F.2. describes the toxicity reduction evaluation (TRE) which is only required if the effluent demonstrates toxicity in two (2) consecutive toxicity tests as described in Part I.F.1.g.

1. Whole Effluent Toxicity (WET) Tests

The permittee must conduct the series of aquatic toxicity tests specified in Part I.F.1.d. using freshwater aquatic organisms as the test species to monitor the acute and chronic toxicity of the effluent discharged from Outfall 009.

If toxicity is demonstrated in two (2) consecutive toxicity tests, as described in Part I.F.1.g., with any test species during the term of the permit, the permittee is required to conduct a TRE under Part I.F.2.

a. Toxicity Test Procedures and Data Analysis

- (1) All test organisms, test procedures and quality assurance criteria used must be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, Section 11, Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test Method 1000.0, and Section 13, Daphnid (*Ceriodaphnia dubia*) Survival and Reproduction Test Method 1002.0, EPA 821-R-02-013, October 2002 (hereinafter "Chronic Toxicity Test Method"), or most recent update that conforms to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. [References to specific portions of the Chronic Toxicity Test Method contained in this Part I.F. are

provided for informational purposes. If the Chronic Toxicity Test Method is updated, the corresponding provisions of that updated method would be applicable.]

- (2) Any circumstances not covered by the above methods, or that require deviation from the specified methods must first be approved by the IDEM Office of Water Quality, Industrial NPDES Permits Section.
- (3) The determination of acute and chronic endpoints of toxicity (LC₅₀, NOEC and IC₂₅ values) must be made in accordance with the procedures in Section 9, "Chronic Toxicity Test Endpoints and Data Analysis" and the Data Analysis procedures as outlined in Section 11 for Fathead Minnow (Test Method 1000.0; see flowcharts in Figures 5, 6 and 9) and Section 13 for *Ceriodaphnia dubia* (Test Method 1002.0; see flowcharts in Figures 4 and 6) of the Chronic Toxicity Test Method. The IC₂₅ value together with 95% confidence intervals calculated by the Linear Interpolation and Bootstrap Methods in Appendix M of the Chronic Toxicity Test Method must be determined in addition to the NOEC value.

b. Types of Whole Effluent Toxicity Tests

- (1) Chronic toxicity tests include a 3-brood (7-day) definitive static-renewal daphnid (*Ceriodaphnia dubia*) survival and reproduction toxicity test and a 7-day definitive static-renewal Fathead Minnow (*Pimephales promelas*) larval survival and growth toxicity test.
- (2) All tests must be conducted using 24-hour composite samples of final effluent. For each test, three effluent samples are to be collected on alternate days (e.g., collected on days one, three and five). The first effluent sample will be used for test initiation and for test solution renewal on day 2. The second effluent sample will be used for test solution renewal on days 3 and 4. The third effluent sample will be used for test solution renewal on days 5, 6 and 7. If shipping problems are encountered with the second effluent sample after a test has been initiated, the test must be repeated. However, if shipping problems are encountered with the third effluent sample, the second effluent sample may continue to be used for test renewal on day 5. The third effluent sample will then be used for test solution renewal on days 6 and 7.
- (3) The whole effluent dilution series for the definitive test must include a control and at least five effluent concentrations with a

minimum dilution factor of 0.5. The effluent concentrations selected must include and, if practicable, bracket the effluent concentrations associated with the determinations of acute and chronic toxicity provided in Part I.F.1.f. Guidance on selecting effluent test concentrations is included in Section 8.10 of the Chronic Toxicity Test Method. The use of an alternate procedure for selecting test concentrations must first be approved by the IDEM Office of Water Quality, Industrial NPDES Permits Section.

- (4) If, in any control, more than 10% of the test organisms die in the first 48 hours with a daphnid species or the first 96 hours with Fathead Minnow, or more than 20% of the test organisms die in 7 days, that test is considered invalid and the toxicity test must be repeated. In addition, if in the *Ceriodaphnia dubia* survival and reproduction test, the average number of young produced per surviving female in the control group is less than 15, or if 60% of surviving control females have less than three broods; and in the Fathead Minnow (*Pimephales promelas*) survival and growth test, if the mean dry weight of surviving fish in the control group is less than 0.25 mg, that test is considered invalid and must also be repeated. All other test conditions and test acceptability criteria for the Fathead Minnow (*Pimephales promelas*) and *Ceriodaphnia dubia* chronic toxicity tests must be in accordance with the test requirements in Section 11 (Test Method 1000.0), Table 1 and Section 13 (Test Method 1002.0), Table 3, respectively, of the Chronic Toxicity Test Method.

c. Effluent Sample Collection and Chemical Analysis

- (1) Whole effluent samples taken for the purposes of toxicity testing must be 24-hour composite samples collected at a point that is representative of the final effluent, but prior to discharge. Effluent sampling for the toxicity testing may be coordinated with other permit sampling requirements as appropriate to avoid duplication. First use of the whole effluent toxicity testing samples must not exceed 36 hours after termination of the 24-hour composite sample collection and must not be used for longer than 72 hours after first use. For discharges of less than 24 hours in duration, composite samples must be collected for the duration of the discharge within a 24-hour period (see "24-hour composite sample" definition in Part I.C.3. of this permit).
- (2) Chemical analysis must coincide with, and if test methods allow, be conducted on each effluent sample taken for toxicity testing, including each sample taken for the repeat testing as outlined in Part I.F.1.f.(3). The chemical analysis detailed in

Part I.A.1.(b). for TSS, Sulfate, and Total Dissolved Solids must be conducted for the effluent sample in accordance with Part I.C.4. of this permit. The results from these chemical analyses must be included with the full whole effluent toxicity (WET) test laboratory report submitted pursuant to Part I.F.1.e.(3).

d. Toxicity Testing Species, Frequency and Duration

Within 90 days of commencement of discharge from Outfall 009, the permittee must initiate chronic toxicity testing for *Ceriodaphnia dubia* and Fathead Minnow (*Pimephales promelas*). The testing, including any repeat tests required under Part I.F.f.(3), must be conducted monthly for an initial period of three (3) consecutive months.

If no toxicity is demonstrated in two (2) consecutive tests as described in Part I.F.1.g., with either species during these three (3) months of testing, the permittee must then conduct chronic toxicity testing for *Ceriodaphnia dubia* and Fathead Minnow (*Pimephales promelas*) once every six (6) months, as calculated from six (6) months after the commencement of discharge from Outfall 009, for the duration of the permit.

At any time following the initial period of testing, the permittee may request a reduction in the number of species tested to only include the species demonstrated to be most sensitive to the toxicity in the effluent. The permittee must submit this request to the IDEM Office of Water Quality, Compliance Data Section under Part I.F.1.e. IDEM will then make a determination on species sensitivity to effluent toxicity and notify the permittee of its decision. If a reduction in species is approved, the Compliance Data Section will modify the toxicity testing requirements to reduce the number of species.

If a TRE is initiated during the term of the permit, after receiving notification under Part I.F.1.e, the Compliance Data Section will suspend the toxicity testing requirements above for the term of the TRE schedule described in Part I.F.2. After successful completion of the TRE, the toxicity tests established under Part I.F.2.c.(4) must be conducted once every six (6) months, as calculated from the first day of the first month following successful completion of the post-TRE toxicity tests (see Part I.F.2.c.(4)), for the remainder of the permit term.

e. Reporting

- (1) Requests to reduce the number of species tested to the one most sensitive to the toxicity in the effluent under Part I.F.1.d., or notifications of the failure of two (2) consecutive toxicity tests

and the intent to begin the implementation of a toxicity reduction evaluation (TRE) under Part I.F.1.g. must be submitted in writing to the IDEM Office of Water Quality, Compliance Data Section.

- (2) Results of all toxicity tests, including invalid tests, must be reported to IDEM according to the general format and content recommended in the Chronic Toxicity Test Method, Section 10, "Report Preparation and Test Review". However, only the results of valid toxicity tests are to be reported on the discharge monitoring report (DMR). For the initial three (3) months of testing, the results of the toxicity tests and laboratory report are due by the 28th day of the month following the fourth, fifth and sixth months, as calculated from the effective date of the permit. Thereafter, the results of the toxicity tests and laboratory report are due by the earlier of 60 days after completion of the test or the 28th day of the month following the end of the testing period established in Part I.F.1.d.
- (3) The full whole effluent toxicity (WET) test laboratory report must be submitted electronically as an attachment to an e-mail to the IDEM Office of Water Quality, Compliance Data Section at wwreports@idem.IN.gov. The results must also be submitted via NetDMR.
- (4) For quality control and ongoing laboratory performance, the laboratory report must include results from appropriate standard reference toxicant tests. This will consist of acute (LC₅₀ values), if available, and chronic (NOEC, LOEC and IC₂₅ values) endpoints of toxicity obtained from reference toxicant tests conducted within 30 days of the most current effluent toxicity tests and from similarly obtained historical reference toxicant data with mean values and appropriate ranges for each species tested for at least three months to one year. Toxicity test laboratory reports must also include copies of chain-of-custody records and laboratory raw data sheets.
- (5) Statistical procedures used to analyze and interpret toxicity data (e.g., Fisher's Exact Test and Steel's Many-one Rank Test for 7-day survival of test organisms; tests of normality (e.g., Shapiro-Wilk's Test) and homogeneity of variance (e.g., Bartlett's Test); appropriate parametric (e.g., Dunnett's Test) and non-parametric (e.g., Steel's Many-one Rank Test) significance tests and point estimates (IC₂₅) of effluent toxicity, etc.; together with graphical presentation of survival, growth and reproduction of test organisms), including critical values, levels of significance and 95% confidence intervals, must be

described and included as part of the toxicity test laboratory report.

- (6) For valid toxicity tests, the whole effluent toxicity (WET) test laboratory report must include a summary table of the results for each species tested as shown in the table presented below. This table will provide toxicity test results, reported in acute toxic units (TU_a) and chronic toxic units (TU_c), for evaluation under Part I.F.1.f. and reporting on the discharge monitoring report (DMR).

Test Organism [1]	Test Type	Endpoint [2]	Units	Result	Compliance Limit [6]	Pass/Fail [7]	Reporting
<i>Ceriodaphnia dubia</i>	3-brood (7-day) Definitive Static-Renewal Survival and Reproduction	48-hr. LC ₅₀	%	Report			Laboratory Report
			TU _a	Report			
		NOEC Survival	%	Report			
			TU _c	Report			
		NOEC Reproduction	%	Report			
			TU _c	Report			
		IC ₂₅ Reproduction	%	Report			
			TU _c	Report			
	Toxicity (acute) [3]		TU _a	Report [5]	1.0	Report	Laboratory Report and NetDMR (Parameter Code 61425)
	Toxicity (chronic) [4]		TU _c	Report [5]	20.3	Report	Laboratory Report and NetDMR (Parameter Code 61426)
<i>Pimephales promelas</i>	7-day Definitive Static-Renewal Larval Survival and Growth	96-hr. LC ₅₀	%	Report			Laboratory Report
			TU _a	Report			
		NOEC Survival	%	Report			
			TU _c	Report			
		NOEC Growth	%	Report			
			TU _c	Report			
		IC ₂₅ Growth	%	Report			
			TU _c	Report			
		Toxicity (acute) [3]	TU _a	Report [5]	1.0	Report	Laboratory Report and NetDMR (Parameter Code 61427)
		Toxicity (chronic) [4]	TU _c	Report [5]	20.3	Report	Laboratory Report and NetDMR (Parameter Code 61428)

[1] For the whole effluent toxicity (WET) test laboratory report, eliminate from the table any species that was not tested.

[2] A separate acute test is not required. The endpoint of acute toxicity must be extrapolated from the chronic toxicity test.

[3] The toxicity (acute) endpoint for *Ceriodaphnia dubia* is the 48-hr. LC₅₀ result reported in acute toxic units (TU_a). The toxicity (acute) endpoint for *Pimephales promelas* is the 96-hr. LC₅₀ result reported in acute toxic units (TU_a).

[4] The toxicity (chronic) endpoint for *Ceriodaphnia dubia* is the higher of the NOEC Survival, NOEC Reproduction and IC₂₅ Reproduction values reported in chronic toxic units (TU_c). The

toxicity (chronic) endpoint for *Pimephales promelas* is the higher of the NOEC Survival, NOEC Growth and IC₂₅ Growth values reported in chronic toxic units (TU_c).

[5] Report the values for acute and chronic endpoints of toxicity determined in [3] and [4] for the corresponding species. These values are the ones that need to be reported on the discharge monitoring report (DMR).

[6] An exceedance of any of these values results in a demonstration of toxicity that requires the permittee to take the actions set forth in either Part I.F.1.f. or Part I.F.1.g., as applicable.

[7] If the toxicity result (in TUs) is less than or equal to the compliance limit, report "Pass". If the toxicity result (in TUs) exceeds the compliance limit, report "Fail".

f. Demonstration of Toxicity

- (1) Toxicity (acute) will be demonstrated if the effluent is observed to have exceeded 1.0 TU_a (acute toxic units) for *Ceriodaphnia dubia* in 48 hours or in 96 hours for *Pimephales promelas*. For this purpose, a separate acute toxicity test is not required. The results for the acute toxicity demonstration must be extrapolated from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.F.1.b.(3), the effluent concentration associated with acute toxicity is 100%.
- (2) Toxicity (chronic) will be demonstrated if the effluent is observed to have exceeded 20.3 TU_c (chronic toxic units) for *Ceriodaphnia dubia* or *Pimephales promelas* from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.F.1.b.(3), the effluent concentration associated with chronic toxicity is 4.9%.
- (3) If toxicity (acute) or toxicity (chronic) is demonstrated in any of the chronic toxicity tests specified at (1) or (2), above, a repeat chronic toxicity test using the procedures in Part I.F.1. of this permit and the same test species must be initiated within two (2) weeks of test failure, or as soon thereafter as practicable. During the sampling for any repeat tests, the permittee must also collect and preserve sufficient effluent samples for use in any toxicity identification evaluation (TIE) and/or toxicity reduction evaluation (TRE), if necessary.

g. Requirement to Conduct a Toxicity Reduction Evaluation

If any two (2) consecutive chronic toxicity tests, including any and all repeat tests, demonstrate acute or chronic toxicity for the same or the other test species under Part I.F.1.f., the permittee must notify the IDEM Office of Water Quality, Compliance Data Section under Part I.F.1.e. within 30 days of the date of termination of the second test, and begin the implementation of a toxicity reduction evaluation (TRE) as

described in Part I.F.2. After receiving notification from the permittee, the Compliance Data Section will suspend the whole effluent toxicity testing requirements in Part I.F.1. for the term of the TRE schedule.

h. Definitions

- (1) "Acute toxic unit" or "TU_a" is defined as $100/LC_{50}$ where the LC_{50} is expressed as a percent effluent in the test medium of an acute whole effluent toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organisms.
- (2) "Chronic toxic unit" or "TU_c" is defined as $100/NOEC$ or $100/IC_{25}$, where the NOEC or IC_{25} are expressed as a percent effluent in the test medium.
- (3) "Inhibition concentration 25" or "IC₂₅" means the toxicant (effluent) concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC_{25} is the concentration of toxicant (effluent) that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.
- (4) "No observed effect concentration" or "NOEC" is the highest concentration of toxicant (effluent) to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms, that is, the highest concentration of toxicant (effluent) in which the values for the observed responses are not statistically significantly different from the controls.

2. Toxicity Reduction Evaluation (TRE) Schedule

The development and implementation of a TRE is only required if toxicity is demonstrated in two (2) consecutive tests as described in Part I.F.1.g. The post-TRE toxicity testing requirements in Part I.F.2.c. must also be completed as part of the TRE schedule.

Milestone Dates: See a. through e. below for more detail on the TRE milestone dates.

Requirement	Deadline
Development and Submittal of a TRE Plan	Within 90 days of the date of two (2) consecutive failed toxicity tests (i.e., the date of termination of the second test).
Initiate a TRE Study	Within 30 days of TRE Plan submittal.
Submit TRE Progress Reports	Every 90 days beginning six (6) months from the date of two (2) consecutive failed toxicity tests (i.e., the date of termination of the second test).
Post-TRE Toxicity Testing Requirements	Immediately upon completion of the TRE, conduct three (3) consecutive months of toxicity tests with both test species; if no acute or chronic toxicity is shown with any test species, reduce toxicity tests to once every six (6) months for the remainder of the permit term. If post-TRE toxicity testing demonstrates toxicity, continue the TRE study.
Submit Final TRE Report	Within 90 days of successfully completing the TRE (including the post-TRE toxicity testing requirements), not to exceed three (3) years from the date that toxicity is initially demonstrated in two (2) consecutive toxicity tests (i.e., the date of termination of the second test).

a. Development of TRE Plan

Within 90 days of the date of two (2) consecutive failed toxicity tests (i.e., the date of termination of the second test), the permittee must submit plans for an effluent TRE to the IDEM Office of Water Quality, Compliance Data Section. The TRE plan must include appropriate measures to reduce toxicity in the effluent discharge to levels that demonstrate no toxicity with any test species as described in Part I.F.1.f. Guidance on conducting effluent toxicity reduction evaluations, including toxicity identification evaluations (TIEs) to characterize and identify the causative toxicants, if necessary, is available from EPA and from the EPA publications listed below:

(1) Methods for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characterization Procedures, Second Edition (EPA/600/6-91/003), February 1991.

Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080), September 1993.

Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081), September 1993.

- (2) Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (EPA/600/6-91/005F), May 1992.
- (3) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TRES) (EPA/600/2-88/070), April 1989.
- (4) Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, U.S. EPA, March 27, 2001.

b. Conduct the TRE

Within 30 days after submittal of the TRE plan to the Compliance Data Section, the permittee must initiate the TRE consistent with the TRE plan.

c. Post-TRE Toxicity Testing Requirements

- (1) After completing the TRE, the permittee must conduct monthly post-TRE toxicity tests with the two (2) test species *Ceriodaphnia dubia* and Fathead Minnow (*Pimephales promelas*) for a period of three (3) consecutive months.
- (2) If the three (3) monthly tests demonstrate no toxicity with any test species as described in Part I.F.1.f.(1) and f.(2), the TRE will be considered successful. Otherwise, the TRE study must be continued.
- (3) The post-TRE toxicity tests must be conducted in accordance with the procedures in Part I.F.1. The results of these tests must be submitted as part of the final TRE Report required under Part I.F.2.d.
- (4) After successful completion of the TRE, the permittee must resume the chronic toxicity tests required in Part I.F.1. The permittee may request in the final TRE report under Part I.F.2.d.(2) a reduction in the number of species tested to only include the species demonstrated to be most sensitive to the

toxicity in the effluent. IDEM will then make a determination on species sensitivity to effluent toxicity and notify the permittee of its decision as part of the TRE approval. The established starting date for the frequency in Part I.F.1.d. is the first day of the first month following successful completion of the post-TRE toxicity tests.

d. Reporting

- (1) Progress reports must be submitted every 90 days to the IDEM Office of Water Quality, Compliance Data Section beginning six (6) months from the date of two (2) consecutive failed toxicity tests (i.e., the date of termination of the second test). Each TRE progress report must include a listing of proposed activities for the next quarter and a schedule to reduce toxicity in the effluent discharge to acceptable levels through control of the toxicant source or treatment of whole effluent.
- (2) Within 90 days of successfully completing the TRE, including the three (3) consecutive monthly tests required as part of the post-TRE toxicity testing requirements in Part I.F.2.c., the permittee must submit to the IDEM Office of Water Quality, Compliance Data Section a final TRE Report that includes the following:
 - (A) A discussion of the TRE results.
 - (B) The starting date established under Part I.F.2.c.(4) for the continuation of the toxicity testing required in Part I.F.1.
 - (C) If applicable, a request to reduce the number of species tested to the one most sensitive to the toxicity in the effluent under Part I.F.2.c.(4).

e. Compliance Date

The permittee must complete items a., b., c. and d. from Part I.F.2. and reduce toxicity in the effluent discharge to acceptable levels as soon as possible, but no later than three (3) years from the date that toxicity is initially demonstrated in two (2) consecutive toxicity tests (i.e., the date of termination of the second test) as described in Part I.F.1.f.g.

G. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for selenium, ammonia, boron, free cyanide, cadmium, fluoride, and temperature at Outfall 001 in accordance with the following schedule:
 - a. The permittee has submitted a written progress report to the Compliance Data Section of the Office of Water Quality (OWQ) nine (9) months from June 1, 2025. The progress report included a description of the method(s) selected for meeting the newly imposed limitation for ammonia, selenium, boron, free cyanide, cadmium, fluoride, and temperature, in addition to any other relevant information. The progress report also included a specific timeline specifying when each of the steps will be taken. The new effluent limits for ammonia, selenium, boron, free cyanide, cadmium, fluoride, and temperature are deferred for the term of this compliance schedule, unless the new effluent limits can be met at an earlier date. The permittee shall notify the Compliance Data Section of OWQ as soon as the newly imposed effluent limits for ammonia, selenium, boron, free cyanide, cadmium, fluoride, and temperature can be met. Upon receipt of such notification by OWQ, the final limits for ammonia, selenium, boron, free cyanide, cadmium, fluoride, and temperature will become effective, but no later than thirty-six (36) months from June 1, 2025. Monitoring and reporting of the effluent for these parameters is required during the interim period.
 - b. The permittee shall submit a subsequent progress report to the Compliance Data Section of OWQ no later than eighteen (18) months from June 1, 2025. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the timeline set out in the initial progress report.
 - c. The permittee shall submit a subsequent progress report to the Compliance Data Section of OWQ no later than twenty-seven (27) months from June 1, 2025. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the timeline set out in the initial progress report.
 - d. Pursuant to Part II.A.14 of this permit, within thirty (30) days of completion of construction, the permittee shall file with the Industrial NPDES Permits Section of OWQ a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

- e. The permittee shall comply with the final effluent limitations for ammonia, selenium, boron, free cyanide, cadmium, fluoride, and temperature no later than thirty-six (36) months from June 1, 2025.
 - f. If the permittee fails to comply with any deadline contained in the foregoing schedule, the permittee shall, within fourteen (14) days following the missed deadline, submit a written notice of noncompliance to the Compliance Data Section of the OWQ stating the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance with final effluent limitations.
2. The permittee shall achieve compliance with the effluent limitations specified for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate at Outfall 007 in accordance with the following schedule:
- a. The permittee submitted a written progress report to the Compliance Data Section of the Office of Water Quality (OWQ) nine (9) months from June 1, 2025. The progress report included a description of the method(s) selected for meeting the newly imposed limitation for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate, in addition to any other relevant information. The progress report also included a specific timeline specifying when each of the steps will be taken. The new effluent limits for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate are deferred for the term of this compliance schedule, unless the new effluent limits can be met at an earlier date. The permittee shall notify the Compliance Data Section of OWQ as soon as the newly imposed effluent limits for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate can be met. Upon receipt of such notification by OWQ, the final limits for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate will become effective, but no later than thirty-six (36) months from June 1, 2025. Monitoring and reporting of the effluent for these parameters is required during the interim period.

- b. The permittee shall submit a subsequent progress report to the Compliance Data Section of OWQ no later than eighteen (18) months from June 1, 2025. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the timeline set out in the initial progress report.
- c. The permittee shall submit a subsequent progress report to the Compliance Data Section of OWQ no later than twenty-seven (27) months from June 1, 2025. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the timeline set out in the initial progress report.
- d. Pursuant to Part II.A.14 of this permit, within thirty (30) days of completion of construction, the permittee shall file with the Industrial NPDES Permits Section of OWQ a notice of installation for the additional pollutant control equipment and a design summary of any modifications.
- e. The permittee shall comply with the final effluent limitations for selenium, boron, total ammonia, cadmium, chloride, fluoride, manganese, zinc, copper, nickel, free cyanide, and the daily maximum limit for sulfate no later than thirty-six (36) months from June 1, 2025.
- f. If the permittee fails to comply with any deadline contained in the foregoing schedule, the permittee shall, within fourteen (14) days following the missed deadline, submit a written notice of noncompliance to the Compliance Data Section of the OWQ stating the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance with final effluent limitations.

H. REOPENING CLAUSES

This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing:

1. to comply with any applicable effluent limitation or standard issued or approved under 301(b)(2)(C),(D) and (E), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:
 - a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. controls any pollutant not limited in the permit.
2. for any of the causes listed under 327 IAC 5-2-16.
3. to include a case-specific Limit of Detection (LOD) and/or Limit of Quantitation (LOQ). The permittee must demonstrate that such action is warranted in accordance with the procedures specified under Appendix B, 40 CFR Part 136, using the most sensitive analytical methods approved by EPA under 40 CFR Part 136, or approved by the Commissioner.
4. to comply with any applicable standards, regulations and requirements issued or approved under section 316(b) of the Clean Water Act.
5. to incorporate IDEM approved Alternative Thermal Effluent Limitations (ATELs) supported by an updated 316(a) Demonstration.
6. 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 the LOD and LOQ that can be achieved by use of the specified analytical method.
7. to include whole effluent toxicity limitations or to include limitations for specific toxicants if the results of the biomonitoring and/or the TRE study indicate that such limitations are necessary to meet Indiana Water Quality Standards.

8. to incorporate a requirement that the permittee develop and implement a Fresh Water Mussel Augmentation Plan consistent with the U.S. Fish and Wildlife Service (USFWS) Recommendations under Section 6.4.5. and Appendix D of the Fact Sheet if: (1) the permittee does not contribute \$170,000 (permittee's original allocated share) to the Indiana Freshwater Mussel Augmentation Plan project (the Project), within six months of the effective date of the permit as required by Part IV.B.8 of this Permit; or (2) if required by Part IV.B.8 of this Permit, the permittee does not contribute an additional sum, as approved by USFWS within six months of the date that this amount has been provided to the permittee after implementation of the Project if additional work is needed to meet the Project's success criteria (the additional sum shall be no more than 25% of the permittee's original allocated share and shall only be required to be paid one time). If the permit is modified to require an individual project after the permittee has submitted its original allocated share, any funds submitted by the permittee will be refunded without interest on or after the date the permit modification is effective.

If the permittee is required to develop and implement a freshwater mussel augmentation project, it would include, at a minimum, the following components: Administrative and Permitting, Brood Stock Acquisition, Propagation effort, Quantitative Processing (tagging), Release Site Reconnaissance Habitat Assessment, and Monitoring augmentation site(s). Each step should be well documented and the documentation available to the public at the appropriate point. More specifically, these components would include the following:

Administrative and Permitting

There will be planning, permitting, coordination with Indiana biologists, federal agency biologists, and also hatchery propagation specialists.

Brood Stock Acquisition

Brood stock acquisition is a necessary step in the augmentation process. This can be accomplished in various ways, but the key is coordination with Indiana biologists, federal agency biologists, and also hatchery propagation specialists. Networking within this growing community of practice will be key to accomplishing this task.

Propagation

Propagation in a laboratory / hatchery should be done by experienced qualified facilities that have routinely worked with rare mussels. A suitable grow out period of likely 3 plus years is expected. They have to be of a sufficient size in order to be tagged. This also gives them a greater chance of living to reproductive maturity.

Quantitative Processing

After a sufficient period of growing out juvenile mussels, an effort to tag mussels so that they can be monitored is important. This involves using adhesives and pit tags and the acquisition of the equipment needed to detect pit tags.

Release Site Reconnaissance Habitat Assessment

Some reconnaissance and habitat assessment should be undertaken in the planning phase of this project so that returning grown out, pit tagged fanshell and fat pocketbook mussels to the White River environs can be optimized for success.

Monitoring Augmentation Sites

Monitoring mussel augmentation sites should take place a year after and two years after mussels have been placed in the White River environs. As previously mentioned, these monitoring efforts should be well documented to allow the U.S. Fish and Wildlife Service to evaluate the success of augmentation of fanshell and fat pocketbook mussels as a measure to minimize take associated with the permittee's facility on the White River.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all terms and conditions of this permit in accordance with 327 IAC 5-2-8(1) and all other requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

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

2. Duty to Mitigate

In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

3. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must obtain and submit an application for renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to obtain and submit the application. In accordance with 327 IAC 5-2-3(c), the owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining the NPDES permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's responsibility to apply for and obtain the permit. Pursuant to 327 IAC 5-3-2(a)(2), the application must be submitted at least 180 days before the expiration date of this permit. This deadline may be extended if all of the following occur:

- a. permission is requested in writing before such deadline;
- b. IDEM grants permission to submit the application after the deadline; and
- c. the application is received no later than the permit expiration date.

4. Permit Transfers

In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except in accordance with 327 IAC 5-2-6(c). This permit may be transferred to another person by the permittee, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

- a. the current permittee notified the Commissioner at least thirty (30) days in advance of the proposed transfer date;
- b. a written agreement containing a specific date of transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and the transferee is liable for violations from that date on) is submitted to the Commissioner;
- c. the transferee certifies in writing to the Commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the Commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility; and
- d. the Commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act or state law.

5. Permit Actions

- a. In accordance with 327 IAC 5-2-16(b) and 327 IAC 5-2-8(4), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:
 - (1) Violation of any terms or conditions of this permit;
 - (2) Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts in the application, or during the permit issuance process; or

- (3) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit, e.g., plant closure, termination of discharge by connection to a POTW, a change in state law that requires the reduction or elimination of the discharge, or information indicating that the permitted discharge poses a substantial threat to human health or welfare.
- b. Filing of either of the following items does not stay or suspend any permit condition: (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) submittal of information specified in Part II.A.3 of the permit including planned changes or anticipated noncompliance.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

- (1) could significantly change the nature of, or increase the quantity of pollutants discharged; or
- (2) the commissioner may request to evaluate whether such cause exists.
- c. In accordance with 327 IAC 5-1-3(a)(5), the permittee must also provide any information reasonably requested by the Commissioner.

6. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or invasion of other private rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

7. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of the permit which can be given effect without the invalid provision or application.

8. Oil and Hazardous Substance Liability

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

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act or state law.

10. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Environmental Rules Board is liable for a civil penalty not to exceed twenty-five thousand dollars (\$25,000) per day of any violation.

Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation performed under IC 13-14-2-2 commits a class C infraction.

Pursuant to IC 13-30-10-1.5(e), a person who willfully or negligently violates any NPDES permit condition or filing requirement, or any applicable standards or limitations of IC 13-18-3-2.4, IC 13-18-4-5, IC 13-18-12, IC 13-18-14, IC 13-18-15, or IC 13-18-16, commits a Class A misdemeanor.

Pursuant to IC 13-30-10-1.5(i), an offense under IC 13-30-10-1.5(e) is a Level 4 felony if the person knowingly commits the offense and knows that the commission of the offense places another person in imminent danger of death or serious bodily injury. The offense becomes a Level 3 felony if it results in serious bodily injury to any person, and a Level 2 felony if it results in death to any person.

Pursuant to IC 13-30-10-1.5(g), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-8 commits a Class B misdemeanor.

Pursuant to IC 13-30-10-1.5(h), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-9, IC 13-18-10, or IC 13-18-10.5 commits a Class C misdemeanor.

Pursuant to IC 13-30-10-1, a person who knowingly or intentionally makes any false material statement, representation, or certification in any NPDES form, notice, or report commits a Class B misdemeanor.

11. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(10), the permittee shall comply with monitoring, recording, and reporting requirements of this permit. The Clean Water Act, as well as IC 13-30-10-1, provides that any person who knowingly or intentionally (a) destroys, alters, conceals, or falsely certifies a record, (b) tampers with, falsifies, or renders inaccurate or inoperative a recording or monitoring device or method, including the data gathered from the device or method, or (c) makes a false material statement or representation in any label, manifest, record, report, or other document; all required to be maintained under the terms of a permit issued by the department commits a Class B misdemeanor.

12. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health, and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

13. Wastewater treatment plant and certified operators

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7.

327 IAC 5-22-10.5(a) provides that a certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant, if it can be shown that he will give adequate supervision to all units involved. Adequate supervision means that sufficient time is spent at the plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operations conditions. In accordance with 327 IAC 5-22-3(11), "responsible charge operator" means the person responsible for the overall daily operation, supervision, or management of a wastewater facility.

Pursuant to 327 IAC 5-22-10(4), the permittee shall notify IDEM when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

14. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environment Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Quality, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, IN 46204-2251.

15. Inspection and Entry

In accordance with 327 IAC 5-2-8(8), the permittee shall allow the Commissioner, or an authorized representative, (including an authorized contractor acting as a representative of the Commissioner) upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept pursuant to the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment or methods (including monitoring and control equipment), practices, or operations regulated or required pursuant to this permit; and
- d. Sample or monitor at reasonable times, any discharge of pollutants or internal wastestreams for the purposes of evaluating compliance with the permit or as otherwise authorized.

16. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any 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 one of the following is completed prior to the commencement of the action:

- a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharges will not cause a significant lowering of water quality as defined under 327 IAC 2-1.3-2(50). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.
- b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 2-1.3-5 and 327 IAC 2-1.3-6.

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

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

Neither 327 IAC 5-2-8(9), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(12), the following are requirements for bypass:

- a. The following definitions:
 - (1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b. The permittee may allow a bypass to occur that does not cause a violation of the effluent limitations contained in this permit, but only if it is also for essential maintenance to assure efficient operation. These bypasses are not subject to Part II.B.2.c. and d.
- c. The permittee must provide the Commissioner with the following notice:

- (1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.
- (2) As required by 327 IAC 5-2-8(11)(C), the permittee shall orally report an unanticipated bypass that exceeds any effluent limitations in the permit within twenty-four (24) hours from the time the permittee becomes aware of such noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. If a complete report is submitted by e-mail within 24 hours of the noncompliance, then that e-mail report will satisfy both the oral and written reporting requirement. E-mails should be sent to wwreports@idem.in.gov.

d. The following provisions are applicable to bypasses:

- (1) Except as provided by Part II.B.2.b., bypass is prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless the following occur:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance.
 - (C) The permittee submitted notices as required under Part II.B.2.c.
- (2) The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.d.(1). The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

- e. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1, including calling 888/233-7745 as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the bypass are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(13):

- a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section, are met.
- c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:
 - (1) An upset occurred and the permittee has identified the specific cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee complied with any remedial measures required under Part II.A.2; and
 - (4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

- d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof pursuant to 40 CFR 122.41(n)(4).

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal. The discharge of pollutants in treated wastewater is allowed in compliance with the applicable effluent limitations in Part I. of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(11)(F), the permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. In this context, permitted facility refers to a point source discharge, not a wastewater treatment facility. Notice is required only when either of the following applies:

- a. The alteration or addition may meet one of the criteria for determining whether the facility is a new source as defined in 327 IAC 5-1.5.
- b. The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in Part I.A. nor to notification requirements in Part II.C.9. of this permit.

Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(10) and 327 IAC 5-2-13 through 15, monitoring results shall be reported at the intervals and in the form specified in "Monthly Reporting", Part I.C.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(11)(C), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance. If the noncompliance meets the requirements of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made within those prescribed time frames. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge that is in noncompliance are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

- a. Any unanticipated bypass which exceeds any effluent limitation in the permit;
- b. Any noncompliance which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the noncomplying circumstances;
- c. Any upset (as defined in Part II.B.3 above) that causes an exceedance of any effluent limitation in the permit; or
- d. Violation of a maximum daily discharge limitation for any of the following toxic pollutants or hazardous substances: **Ammonia, Cadmium, Copper, Free Cyanide, Lead, Mercury, Nickel, Selenium, and Zinc** at the Outfalls for which they are limited.

The permittee can make the oral reports by calling (317)232-8670 during regular business hours and asking for the Compliance Data Section or by calling (317) 233-7745 ((888)233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the permittee may submit a "Bypass/Overflow Report" (State Form 48373) or a "Noncompliance 24-Hour Notification Report" (State Form 52415), whichever is appropriate, to IDEM at (317) 232-8637 or wwreports@idem.in.gov. If a complete e-mail submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the email report will satisfy both the oral and written reporting requirements.

4. Other Compliance/Noncompliance Reporting

Pursuant to 327 IAC 5-2-8(11)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting Requirements" in Part II.C.3, or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in Part II.C.3;

The permittee shall also give advance notice to the Commissioner of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements; and

All reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

5. Other Information

Pursuant to 327 IAC 5-2-8(11)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(15):

- a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:
 - (1) For a corporation: by a responsible corporate officer. A "responsible corporate officer" means either of the following:
 - (A) A president, secretary, treasurer, any vice president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation; or
 - (B) The manager of one (1) or more manufacturing, production, or operating facilities provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty to make major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws

and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a Federal, State, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.
- b. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described above.
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - (3) The authorization is submitted to the Commissioner.
- c. Electronic Signatures. If documents described in this section are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of this section, and shall ensure that all of the relevant requirements of 40 CFR part 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission.
- d. Certification. Any person signing a document identified under Part II.C.6., shall make the following certification:

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

to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(15) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance, shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the permittee shall notify the Commissioner as soon as it knows or has reason to know:

- a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant that is not limited in the permit if that discharge will exceed the highest of the following notification levels.
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) A notification level established by the Commissioner on a case-by-case basis, either at the Commissioner's own initiative or upon a petition by the permittee. This notification level may exceed the level specified in subdivisions (1), (2), or (3) but may not exceed the level which can be achieved by the technology-

based treatment requirements applicable to the permittee under the CWA (see 327 IAC 5-5-2).

- b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application under 40 CFR 122.21(g)(9). However, this subsection b. does not apply to the permittee's use or manufacture of a toxic pollutant solely under research or laboratory conditions.

10. Future Electronic Reporting Requirements

IDEM is currently developing the technology and infrastructure necessary to allow compliance with the EPA Phase 2 e-reporting requirements per 40 CFR 127.16 and to allow electronic reporting of applications, notices, plans, reports, and other information not covered by the federal e-reporting regulations. IDEM will notify the permittee when IDEM's e-reporting system is ready for use for one or more applications, notices, plans, reports, or other information. This IDEM notice will identify the specific applications, notices, plans, reports, or other information that are to be submitted electronically and the permittee will be required to use the IDEM electronic reporting system to submit the identified application(s), notice(s), plan(s), report(s), or other information. See Part I.C.2. of this permit for the current electronic reporting requirements for the submittal of monthly monitoring reports such as the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR).

PART III
Other Requirements

A. Polychlorinated Biphenyl

There shall be no discharge of polychlorinated biphenyl (PCB) compounds attributable to facility operations such as those historically used in transformer fluids. In order to determine compliance with the PCB discharge prohibition, the permittee shall provide the following PCB data with the next NPDES permit renewal application for at least one sample taken from Outfalls 001, 002, 007, 009, and 010 and the representative stormwater Outfalls 006S, 011S, 016S, 025S, 030S, and 031S. The corresponding facility water intakes shall be monitored at the same time as the final outfalls.

<u>Parameter</u>	<u>Test Method</u>	<u>LOD</u>	<u>LOQ</u>
*Total PCBs	608.3	0.1 ug/l	0.3 ug/l

*Total PCBs is the sum of the following aroclors: PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1260.

B. Additional Prohibited Discharges

There shall be no discharge of chemical metal cleaning wastewater, FGD wastewater, combustion residual leachate, or bottom or fly ash transport water from any of the Outfalls at the facility. Chemical metal cleaning waste is defined in 40 CFR 423.11(c) as “any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including but not limited to boiler tube cleaning.” FGD wastewater is defined at 40 CFR 423.11(n), combustion residual leachate is defined at 40 CFR 423.11(r), and transport water is defined at 40 CFR 423.11(p).

C. Steam Electric Effluent Limitation Guidelines

The Final Rule established in 2024 for the Steam Electric Effluent Limitations Guidelines included new provisions to improve transparency and public awareness with respect to water pollution. Under the final rule, facilities are required to post information, such as details of discharges and wastewater treatment systems in use, to a publicly available website. More information about this rule change can be found in 40 CFR 423.19(c).

Part IV
Cooling Water Intake Structures

A. Best Technology Available (BTA) Determination

Section 316(b) of the Clean Water Act requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact.

The EPA promulgated a CWA section 316(b) regulation on August 15, 2014, which became effective on October 14, 2014. 79 Fed. Reg. 48300-439 (August 15, 2014). This regulation established application requirements and standards for cooling water intake structures. The regulation is applicable to point sources with a cumulative design intake flow (DIF) greater than 2 MGD where 25% or more of the water withdrawn (using the actual intake flow (AIF)) is used exclusively for cooling purposes. All existing facilities subject to these regulations must submit the information required by 40 CFR 122.21(r)(2)–(r)(8) and facilities with an actual intake flow of greater than 125 MGD must also submit the information required by 40 CFR 122.21(r)(9)–(r)(13). The regulation establishes best technology available standards to reduce impingement and entrainment of aquatic organisms at existing power generation and manufacturing facilities.

Based on available information, IDEM has made the following best technology available (BTA) impingement and entrainment mortality determinations:

Impingement mortality BTA: Based on an evaluation of the information presented in the permittee's June 2021 316(b) application, NPDES application, and supplemental information, IDEM finds that the permittee will meet the maximum design through-screen intake velocity of 0.5 feet per second impingement mortality BTA when the three-year schedule of compliance is complete. The maximum velocity must be achieved under all conditions (40 C.F.R. § 125.94(c)(2)). Additionally, the permittee may meet the operation of a closed cycle recirculating system impingement BTA. Compliance with BTA will be determined by IDEM based on the final approved design.

Schedule of Compliance Projects:

1. The permittee has proposed to resize/downsize the intake pumps at the existing White River CWIS.
2. The permittee plans to retire the cooling water intake structure in the discharge canal by modifying the piping systems to supply the cooling tower makeup water system directly from the Unit 2 river intake. The intake structure for Units 3 and 4 cooling tower make-up water will be permanently taken out of service.

Entrainment BTA: After considering all the factors that must and may be considered by the federal regulations (see discussion above), IDEM finds that the existing facility meets the BTA for entrainment mortality. This is primarily based on the following factors:

1. Flow reductions that have occurred at the facility due to the recent retirements of Unit 1 and Unit 2, once-through coal fired units. These retirements reduced the average annual intake flow from approximately 300 mgd to approximately 133 mgd based on the water balance diagram representing conditions after closure of Unit 2. The intake flow is proposed to be further reduced, to approximately 54.0 mgd, after the reduced size pumps are installed.
2. Use of closed cycle cooling at Units 3 and 4.

These determinations will be reassessed at the next permit reissuance to ensure that the CWISs continue to meet the requirements of Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326). In addition, modifications may be made with respect to the BTA determinations and conditions based on studies, reports and other information conducted and/or submitted during the term of this permit.

B. 316(b) Permit Requirements

The permittee shall comply with the following cooling water intake structure (CWIS) requirements:

1. In accordance with 40 CFR 125.98(b)(1), nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.
2. The permittee must at all times properly operate and maintain the cooling water intake structure and associated intake equipment.
3. The permittee must inform IDEM of any proposed changes to the CWIS or proposed changes to operations at the facility that affect the information taken into account in the current BTA evaluation.
4. Any discharge of intake screen backwash must meet the Minimum Narrative Limitations contained in Part I.B of the permit. There must be no discharge of debris from intake screen washing which will settle to form objectionable deposits which are in amounts sufficient to be unsightly or deleterious, or which will produce colors or odors constituting a nuisance.
5. The permittee must measure or estimate the intake flow at the Unit 1 and 2 Intake located on the White River. These data must be reported on the DMRs and MMRs. Further, the permittee shall submit an annual summary of the actual intake flows measured at a minimum frequency of daily.
6. The permittee must monitor and report its cycles of concentration at each of the Unit 3 and 4 cooling towers at a minimum frequency of daily. These data must be reported on the DMRs and MMRs. Further, the permittee shall submit an annual summary of the cycles of concentration measured at a minimum frequency of daily.

7. The permittee must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation as required by 40 CFR 125.96(e). The permittee must conduct such inspections at least weekly to ensure that any technologies operated to comply with 40 CFR 125.94 are maintained and operated to function as designed including those installed to protect Federally-listed threatened or endangered species or designated critical habitat. Alternative procedures can be approved if this requirement is not feasible (e.g., an offshore intake, velocity cap, or during periods of inclement weather).
8. The permittee shall contribute \$170,000 (permittee's original allocated share) to the Indiana Freshwater Mussel Augmentation Plan project (the Project), within six months of the effective date of the permit. If necessary, the permittee shall contribute a one-time additional sum to the Project, as approved by the U.S. Fish and Wildlife Service, not to exceed \$42,500, within six months of receiving written notice of the requirement for the additional contribution. This will be determined after implementation of the Project and if additional work is needed to meet the Project's success criteria. Within 30 days of payment, documentation of the payment(s) shall be provided to IDEM including reference to the permit and permit condition. The permittee shall submit annual reports to IDEM by January 31 of each year. These annual reports shall detail the payments made to the Project in the preceding year, in any. Consistent with the USFWS's and National Marine Fisheries Service's Biological Opinion, as summarized in Figure 3 of that document, compliance with this permit requirement shall satisfy USFWS that "impacts to species and critical habitat [have been] minimized [and] incidental take [will be] exempted."
9. In accordance with 40 CFR 125.97(c), by January 31 of each year, the permittee must submit to the Industrial NPDES Permit Section IDEM-OWQ an annual certification statement for the preceding calendar year signed by the responsible corporate officer as defined in 40 CFR 122.22 (see 327 IAC 5-2-22) subject to the following:
 - a. If the information contained in the previous year's annual certification is still pertinent, you may simply state as such in a letter to IDEM and the letter, along with any applicable data submission requirements specified in this section shall constitute the annual certification.
 - b. If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required at 40 CFR 122.21(r) in your next permit application.

10. Best technology available (BTA) determinations for entrainment mortality and impingement mortality at cooling water intake structures will be made in each permit reissuance in accordance with 40 CFR 125.90-98. The permittee must submit all the information required by the applicable provisions of 40 CFR 122.21(r)(2) through (r)(8) with the next renewal application. Since the permittee has submitted the studies required by 40 CFR 122.21(r), the permittee may, in subsequent renewal applications pursuant to 40 CFR 125.95(c), request to reduce the information required if conditions at the facility and in the waterbody remain substantially unchanged since the previous application so long as the relevant previously submitted information remains representative of the current source water, intake structure, cooling water system, and operating conditions. Any habitat designated as critical or species listed as threatened or endangered after issuance of the current permit whose range of habitat or designated critical habitat includes waters where a facility intake is located constitutes potential for a substantial change that must be addressed by the owner/operator in subsequent permit applications, unless the facility received an exemption pursuant to 16 U.S.C. 1536(o) or a permit pursuant to 16 U.S.C. 1539(a) or there is no reasonable expectation of take. The permittee must submit the request for reduced cooling water intake structure and waterbody application information at least **two years and six months** prior to the expiration of the NPDES permit. The request must identify each element in this subsection that it determines has not substantially changed since the previous permit application and the basis for the determination. IDEM has the discretion to accept or reject any part of the request.
11. The permittee must submit and maintain all the information required by the applicable provisions of 40 CFR 125.97.
12. The permittee must keep records of all submissions that are part of its permit application until the subsequent permit issued to document compliance with 40 CFR § 125.95. If IDEM approves a request for reduced permit application studies under § 125.95(a) or (c) or § 125.98(g), the permittee must keep records of all submissions that are part of the previous permit application until the subsequent permit is issued.
13. All required reports must be submitted to the IDEM, Office of Water Quality, NPDES Permits Branch, Industrial NPDES Permit Section at OWQWWPER@idem.in.gov and the Compliance Branch at wwReports@idem.in.gov.

C. Schedule of Compliance

The below schedule of compliance is for the permittee to resize/downsize the intake pumps at the existing White River CWIS and retire the cooling water intake structure in the discharge canal by modifying the piping systems to supply the cooling tower makeup water system directly from the Unit 2 river intake. These changes will allow the permittee to achieve a maximum design through-screen intake velocity of 0.5 feet per second that will meet the impingement mortality BTA.

The permittee shall make the proposed changes as soon as possible but no later than 36 months from June 1, 2025 in accordance with the following schedule:

- a. The permittee has submitted a written progress report to the Compliance Data Section of the office of water quality (OWQ) six (6) months from June 1, 2025. The progress report contained a detailed schedule detailing the steps/milestones that have been taken to make the proposed changes and included relevant information related to steps the permittee has taken to meet the requirements in the compliance schedule and whether the permittee is meeting the dates in the compliance schedule.
- b. The permittee has submitted a written progress report to the Compliance Data Section of the office of water quality (OWQ) twelve (12) months from June 1, 2025. The report included relevant information related to steps/milestones the permittee has taken to meet the requirements in the compliance schedule and whether the permittee is meeting the dates in the compliance schedule.
- c. The permittee shall submit a written progress report to the Compliance Data Section of the office of water quality (OWQ) eighteen (18) months from June 1, 2025. The report shall include relevant information related to steps/milestones the permittee has taken to meet the requirements in the compliance schedule and whether the permittee is meeting the dates in the compliance schedule. At this time, the permittee submitted to IDEM the final design of improvements made in the proposed changes, previously required to be submitted within the 18 month progress report.
- d. The permittee shall submit a written progress report to the Compliance Data Section of the office of water quality (OWQ) twenty-four (24) months from June 1, 2025. The report shall include relevant information related to steps/milestones the permittee has taken to meet the requirements in the compliance schedule and whether the permittee is meeting the dates in the compliance schedule.
- e. The permittee shall submit a written progress report to the Compliance Data Section of the office of water quality (OWQ) thirty (30) months from June 1, 2025. The report shall include relevant information related to steps/milestones the permittee has taken to meet the requirements in the compliance schedule and whether the permittee is meeting the dates in the compliance schedule.
- f. The permittee shall make the proposed changes no later than 36 months from June 1, 2025.
- g. If the permittee fails to comply with any deadline contained in the foregoing schedule, the permittee shall, within fourteen (14) days following the missed deadline, submit a written notice of noncompliance to the Compliance Data Section

of the OWQ stating the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance.



**National Pollutant Discharge Elimination System
Fact Sheet for
Indianapolis Power & Light Company (IPL) dba AES Indiana
– Petersburg Generating Station
Draft modification: August 2026
Final modification: TBD**

Indiana Department of Environmental Management

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

Permittee:	Indianapolis Power & Light Company (IPL) dba AES Indiana - Petersburg Generating Station 6925 North State Road 57 Petersburg, IN 47567
Existing Permit Information:	Permit Number: IN0002887 Expiration Date: May 31, 2030
Facility Contact:	Braden Henson, Plant Leader - Environmental (812) 601-7115; braden.henson@aes.com
Facility Location:	6925 North State Road 57 Petersburg, IN 47567 Pike County
Receiving Stream:	White River and Lick Creek (Tributary to the White River)
GLI/Non-GLI:	Non-GLI
Proposed Permit Action:	Modify
Date Application Received:	August 13, 2025
Source Category	NPDES Major – Industrial
Permit Writer:	Jodi Wray (317) 234-9739; jwray@idem.in.gov

Table of Contents

1.0 Introduction	3
2.0 Facility description.....	3
2.1 General.....	3
2.2 Outfall Locations.....	7
3.0 PERMIT MODIFICATION.....	7
3.1 Modification Request	7
3.2 IDEM's Proposed Modification.....	10
3.3 Antibacksliding	14
3.4 Antidegradation	14
3.5 Spill Response and Reporting Requirement.....	15
3.6 Permit Processing/Public Comment	15

1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a request from AES Indiana – Petersburg Generating Station on August 13, 2025 to modify National Pollutant Discharge Elimination System (NPDES) Permit IN0002887. The current five year permit was issued with an effective date of June 1, 2025 in accordance with 327 IAC 5-2-6(a).

The Federal Water Pollution Control Act (more commonly known as the Clean Water Act), as amended, (Title 33 of the United States Code (U.S.C.) Section 1251 et seq.), requires an NPDES permit for the discharge of pollutants into surface waters. Furthermore, Indiana law requires a permit to control or limit the discharge of any contaminants into state waters or into a publicly owned treatment works. This proposed permit action by IDEM complies with and implements these federal and state requirements.

In accordance with Title 40 of the Code of Federal Regulations (CFR) Sections 124.8 and 124.56, as well as Title 327 of the Indiana Administrative Code (IAC) Article 5-3-8, a Fact Sheet is required for certain NPDES permits. This document fulfills the requirements established in these regulations. This Fact Sheet was prepared in order to document the factors considered in the development of NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, receiving water conditions, Indiana water quality standards-based wasteload allocations, and other information available to IDEM. Decisions to award variances to Water Quality Standards or promulgated effluent guidelines are justified in the Fact Sheet where necessary. This Fact Sheet also identifies the modified pages of the permit as issued on May 7, 2025.

2.0 FACILITY DESCRIPTION

2.1 General

AES Indiana – Petersburg Generating Station is classified under Standard Industrial Classification (SIC) Code 4911 – Electric Services. The facility generates electrical power through the combustion of coal and oil. Current operation of transfer, storage, and combustion of coal and oil will be converted to gas (no coal) at the end of 2026. Activities performed on-site include: transfer, storage, and use of miscellaneous chemicals including but not limited to sulfuric acid, caustic, sulfur dioxide, hydrazine, liquid elemental sulfur, sodium bromide, and chlorine, transfer, storage, and use of metallic and nonmetallic parts and equipment, operations and maintenance of boilers, turbines, precipitators, cooling towers, switchyards, transformers, ash lines (planned for decommissioning in 2026-2027), and other miscellaneous operations, operation and maintenance of company-owned vehicles, e.g., pick-up and water trucks.

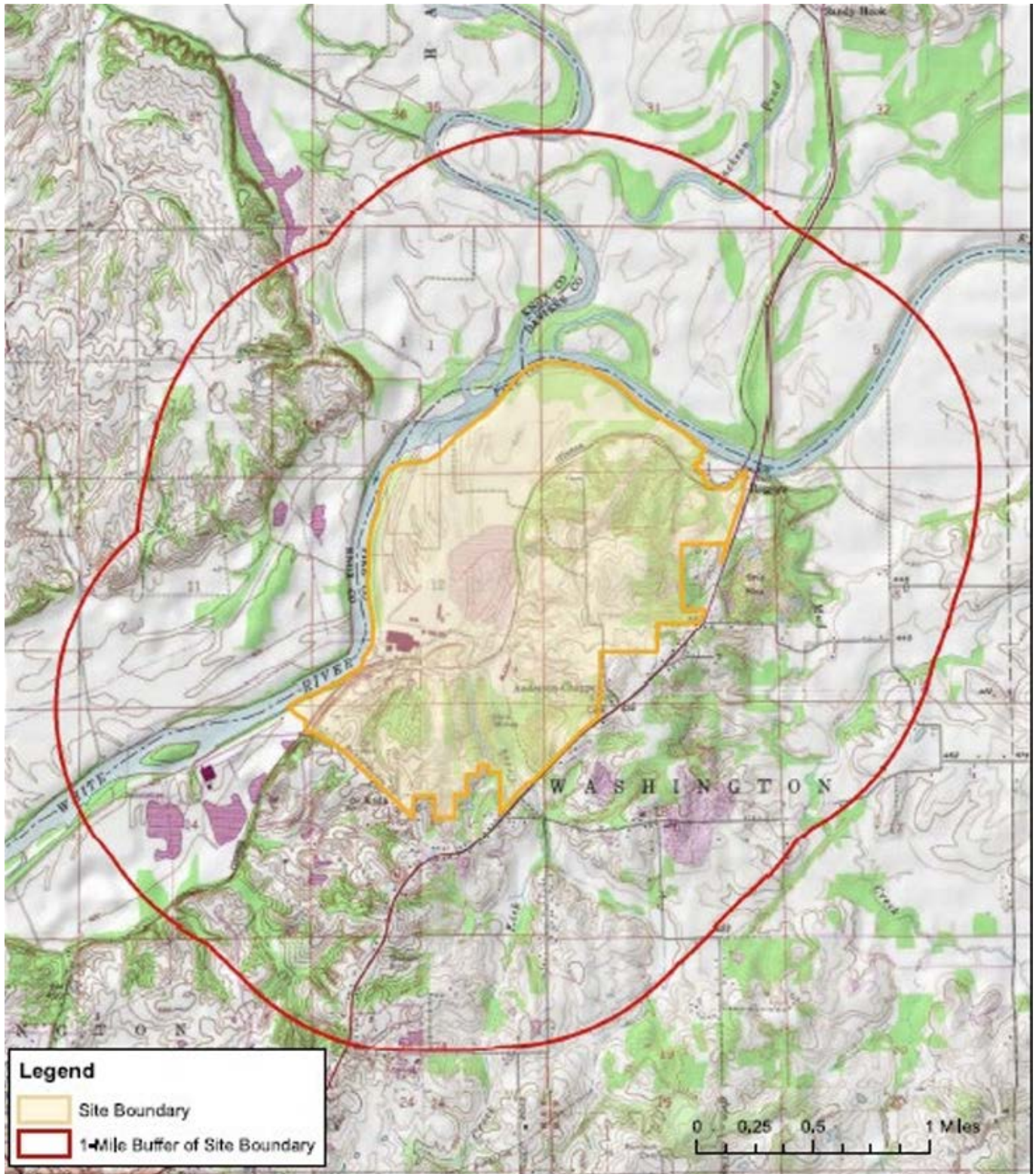
The source water for the facility is the White River.

The Petersburg Generating Station is located on the White River near Petersburg, Pike County, Indiana. This station has had four coal-burning generating units, two of which operate with closed-cycle cooling and two with once-through cooling. Once-through cooling water was drawn from the White River. Units 1 and 2 were once-through cooling water units which went online in 1967 and 1969 respectively. Units 3 and 4 are closed cycle cooled units that went online in 1977 and 1986 respectively. Unit 1 was retired in June 2021 and Unit 2 was retired in July 2023.

Prior to the retirement of Units 1 and 2, a cooling water intake structure on the White River provided cooling water to Units 1 and 2. The discharge from Units 1 and 2 was discharged to the "Discharge Canal". After retirement was completed of these units, the water withdrawn from the White River cooling water intake discharged directly to the "Discharge Canal". Cooling tower make up water for Units 3 and 4 was and still is withdrawn from the "Discharge Canal" using a second intake. The intake structure located on the White River consists of six intake bays, each of which are equipped with trash racks at the point of withdrawal from the river, conventional traveling water screens and circulating pumps. Total design intake flow capacity for the cooling water intake structure intake located on the White River is 427.7 MGD.

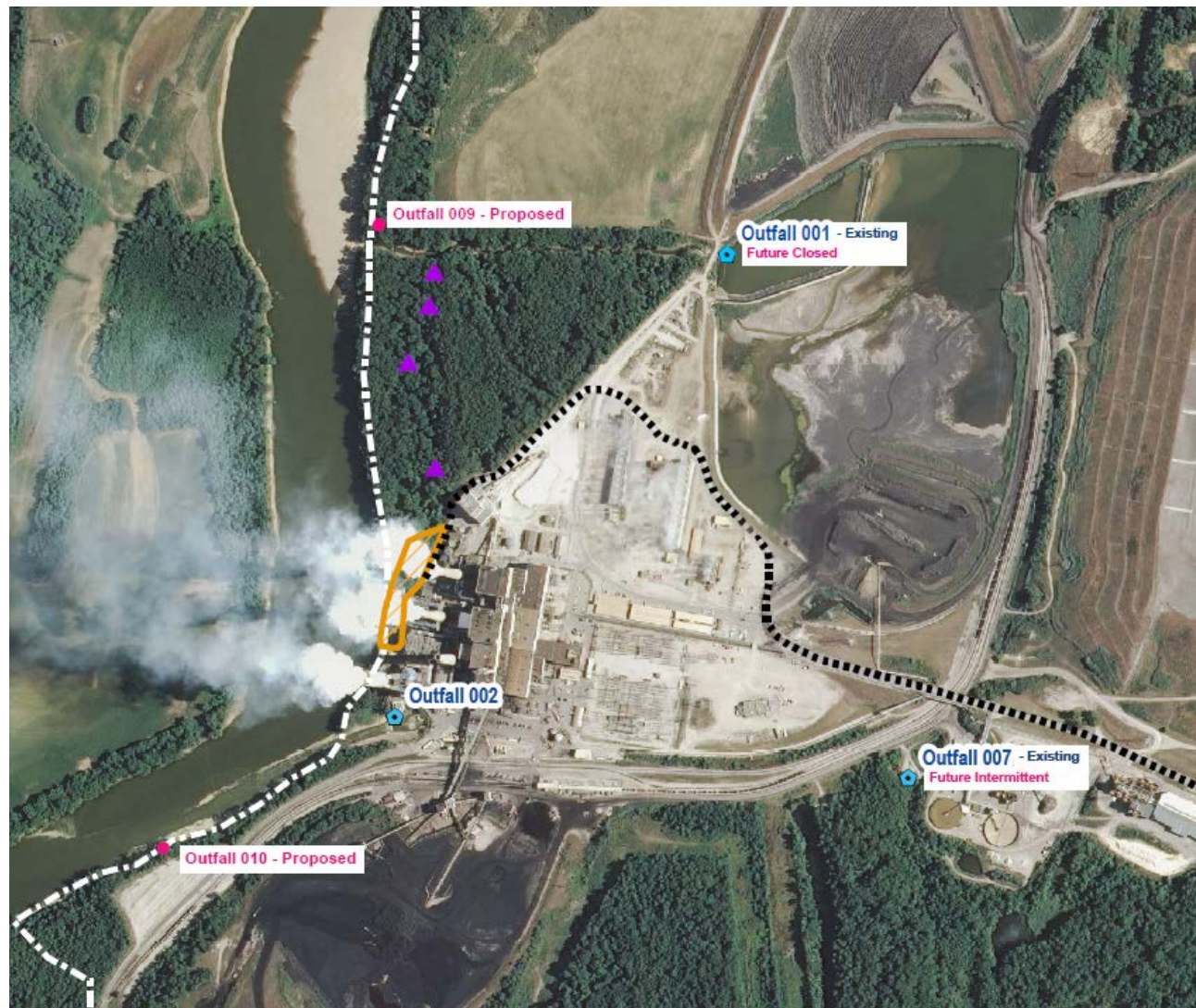
Maps showing the location of the facility have been included as Figure 1a and Figure 1b.

Figure 1a: Facility Location/Site Map



AES Indiana – Petersburg Generating Station
6925 North State Road 57
Petersburg, IN – Pike County

Figure 2b: Site Map



Indiana Power and Light Petersburg Facility Overview

Legend

- ▲ Water Wells
- NPDES Existing Outfall Points
- NPDES Proposed Outfall Points
- Truck Route
- Expansion Boundary
- Site Boundary

Note

The proposed Outfalls are based on the conceptual engineering. Final locations may be slightly different along the White River when final engineering is complete.

2.2 Outfall Locations

Outfall 001	Latitude: 38° 32' 01" Longitude: -87° 14' 52"
Internal Outfall 101	Latitude: 38° 31' 58" Longitude: -87° 14' 52"
Outfall 002	Latitude: 38° 31' 37" Longitude: -87° 15' 11"
Outfall 007	Latitude: 38° 31' 34" Longitude: -87° 14' 40"
Proposed Outfall 009	Latitude: 38° 32' 02" Longitude: -87° 15' 15"
Proposed Outfall 010	Latitude: 38° 31' 27" Longitude: -87° 15' 36"

3.0 PERMIT MODIFICATION

3.1 Modification Request

AES Indiana (AESI) conducted a compliance risk evaluation to assess whether the Petersburg Generating Station would be able to meet more stringent water quality-based effluent limits (WQBELs) at Outfalls 001 and 007 imposed in the 2025 renewal of their NPDES permit. The WQBEL assessment and reasonable potential to exceed (RPE) analysis for continued discharge to Lick Creek indicate significant compliance risk for a number of pollutants. Therefore, AESI evaluated WQBELs and RPE based on the plant relocating its effluent discharge to the larger flow of the White River.

The permittee requests modification to their NPDES permit to relocate Outfall 001 and 007 discharges from Lick Creek to the White River in order to address compliance risk with meeting several WQBELs at Lick Creek.

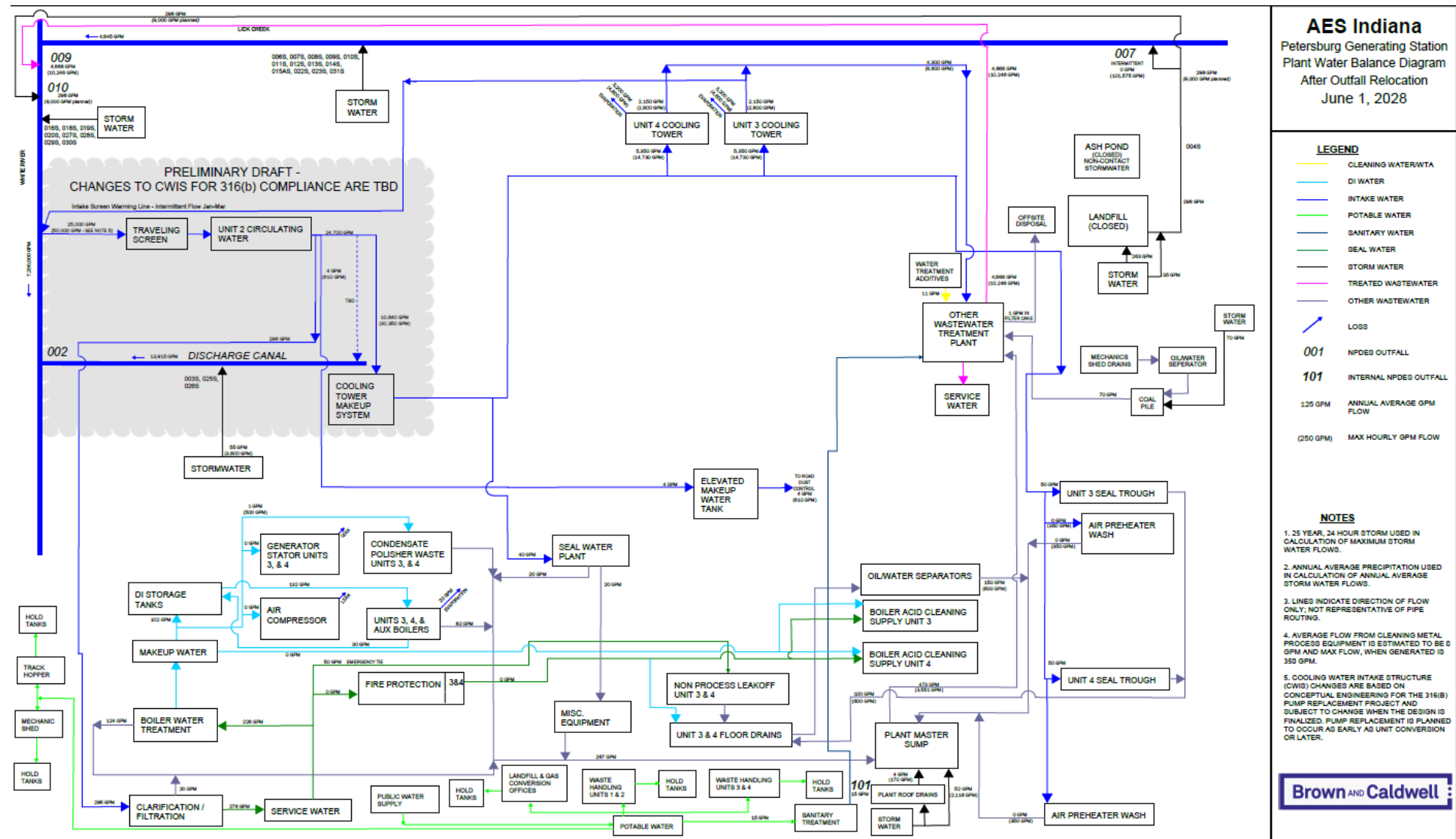
The flows contributing to Outfall 007 are stormwater dominated and the outfall relocation pumps are being designed to convey the flow anticipated from a design storm event. The permittee requests authorization to discharge from a new intermittent Outfall (which will still bear the name Outfall 007) to Lick Creek during wet weather conditions that generate a stormwater flow in excess of the capacity of the pump for discharge to the White River via relocated Outfall 007 which is now named Outfall 010.

The permittee also requests that a clarifying footnote is added to the cycles of concentration (COC) row of Table 1 in Part I.A.1 of the permit stating the following:

“COCs may be calculated as the cooling tower blowdown (CTBD) conductivity divided by the makeup water conductivity, and the permittee may use engineering calculations to estimate blowdown or makeup water conductivity during times when the conductivity measurement device is inoperable, being maintained, on holidays, or other infrequent circumstances.”

A Water Balance Diagram has been included as Figure 2.

Figure 2: Water Balance Diagram



3.2 IDEM's Proposed Modification

IDEM agrees to modify the permit to include the relocation of wastestreams associated with Outfalls 001 and 007. The newly constructed outfalls will be named Outfall 009 and Outfall 010.

Outfall 009 is comprised of the relocated wastestreams from Outfall 001. Outfall 001 will no longer have a discharge once Outfall 009 is functional.

Outfall 010 is the relocated Outfall 007. Outfall 007 is still included in the permit, but the authorized wastestreams will change once Outfall 010 is functional.

A Wasteload Allocation Report was completed on December 2, 2025 (WLA002836) and is included as Appendix A. This report was completed to determine appropriate limitations for Outfall 009 and 010 to the White River and to address changes to Outfall 007. Outfall 007 will discharge on an intermittent basis to Lick Creek during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010.

Below is a discussion of the limits that will now be included in the permit at each of these respective outfalls and how those limits were determined. These limits and monitoring requirements are only applicable once the outfall relocation project is complete.

Outfall 009

Mercury

The results of the reasonable potential analysis show that there is a reasonable potential to exceed a water quality criterion for mercury, but not for any of the other pollutants considered in the analysis. Therefore, WQBELs are only required for mercury. The WQBELs are the same as previously calculated and will be carried over for this permit modification. The limits are 12 ng/l monthly average and 20 ng/l daily maximum.

Whole Effluent Toxicity

Whole effluent toxicity (WET) test requirements are included in the NPDES permit to monitor compliance with the narrative water quality criteria under 327 IAC 2-1-6(a)(1)(E) and (a)(2). 327 IAC 2-1-6(a)(1)(E) requires all surface waters at all times and all places, including the mixing zone, to be free from substances, materials, etc. which are in amounts sufficient to be acutely toxic to or to otherwise severely injure or kill aquatic life, other animals, plants, or humans. 327 IAC 2-1-6(2) requires that all waters outside the mixing zone be free of substances in concentrations that on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants. In addition, under 327 IAC 5-2-11.1(h), IDEM is required to determine whether the discharge causes, or has the reasonable potential to cause or contribute to a violation of these narrative water quality criteria.

Therefore, the permittee is required to conduct WET tests to determine the toxicity of the final effluent. This does not negate the requirement to submit a water treatment additive (WTA) application and/or worksheet for replacement or new additives/chemicals proposed for use at the site. Toxicity reduction evaluation (TRE) triggers for acute and chronic whole effluent toxicity (WET) were calculated as part of WLA002836 for this permit modification. The trigger values are 1.0 TUa for acute and 20.3 TUa for chronic.

Selenium, Total Ammonia (as N), Boron, Chloride, and Sulfate

Based on the WLA that was completed as part of this permit modification, these parameters do not have a reasonable potential to cause or contribute to an exceedance of a water quality criterion. However, based on the source and nature of the discharge, monitoring requirements will be retained in the permit.

Flow, pH, TSS, Oil & Grease, Total Residual Chlorine (TRC), Total BOD5, Total Dissolved Solids, and Phosphorus

The effluent limitations and monitoring requirements for the above identified parameters remain unchanged from the currently permitted Outfall 001 and are carried over to Outfall 009.

Temperature

Temperature limits are included at this outfall and the permittee will have the option of meeting the limits at the end of pipe or by meeting the limits with a mixed river temperature equation that takes into account the mixing zone allowed by 327 IAC 2-1-6(b). The limitations and equation can be found in the permit.

Iron

The facility is subject to the federal effluent limitation guideline (ELG) for Steam Electric Power Generating. The ELGs include specific limitations for iron for non-chemical metal cleaning wastewaters. The TBELs for iron were calculated in the 2025 renewal using the building block approach. The TBELs are 0.96 mg/l for both monthly average and daily maximum. The WBQELs calculated as part of this permit modification for iron are 3.2 mg/l monthly average and 5.5 mg/l daily maximum. The TBELs are more stringent and are included in the permit modification. Because the TBELs apply to non-chemical metal cleaning wastewaters, monitoring is required 2 X Monthly during discharge of non-chemical metal cleaning wastewaters.

Copper

The facility is subject to the federal effluent limitation guideline (ELG) for Steam Electric Power Generating. The ELGs include specific limitations for copper for non-chemical metal cleaning wastewaters. The TBELs for copper were calculated in the 2025 renewal using the building block approach. The TBELs are 0.96 mg/l for both monthly average and daily maximum. The WBQELs calculated as part of this permit modification for copper are 0.044 mg/l monthly average and 0.075 mg/l daily maximum. The WBQELs

calculated as part of this permit modification are more stringent than the TBELs and are therefore included in this permit modification.

Total Chromium and Zinc

The Steam Electric Power Generating ELGs include specific limitations for total chromium and zinc in cooling tower blowdown. The permittee requested a waiver for the TBELs for total chromium and zinc during the previous permit renewal. This waiver was granted and is good for the term of the permit. Therefore, this waiver is carried over to this permit modification until the term of the permit ends. Monitoring requirements still apply.

The current monitoring and limitations at Outfall 001 also includes cadmium, fluoride, free cyanide, lead, nickel, arsenic, and manganese. Based on the WLA that was completed as part of this permit modification, these parameters do not have a reasonable potential to cause or contribute to an exceedance of a water quality criterion at Outfall 009. Therefore, limitations and monitoring for these parameters have not been included at Outfall 009.

Outfall 010

Flow, pH and TSS

The effluent limitations and monitoring requirements for the above identified parameters remain unchanged from the currently permitted Outfall 007 and are carried over to Outfall 010.

Boron, Sulfate, Selenium, Mercury, Chloride, and Fluoride

Based on the WLA that was completed as part of this permit modification, these parameters do not have a reasonable potential to cause or contribute to an exceedance of a water quality criterion. However, based on the source and nature of the discharge, monitoring requirements will be retained in the permit.

The current monitoring and limitations at Outfall 007 also includes cadmium, copper, manganese, total ammonia (as N), free cyanide, nickel, zinc, lead, arsenic, total chromium, and iron. Based on the WLA that was completed as part of this permit modification, these parameters do not have a reasonable potential to cause or contribute to an exceedance of a water quality criterion at Outfall 010. Therefore, limitations and monitoring for these parameters have not been included at Outfall 010.

Removal of Total BOD5, Total Dissolved Solids, Phosphorus

Based on the source and nature of the discharge, these pollutants are not expected to be present in quantities that exhibit a reasonable potential to exceed water quality criteria. Therefore, monitoring requirements have been removed from the permit.

Outfall 007 – after relocation of process and nonprocess wastewaters

This outfall will be composed of intermittent stormwater runoff once the outfall relocation project is complete.

Flow, TSS, pH, Oil & Grease, COD, CBOD₅, Total Kjeldahl Nitrogen, Nitrate plus Nitrite Nitrogen, Total Phosphorus

The monitoring requirements for these parameters are consistent with other individual permits regulating stormwater in Indiana.

Selenium, Boron, and Sulfate

Based on the WLA that was completed as part of this permit modification, these parameters do not have a reasonable potential to cause or contribute to an exceedance of a water quality criterion. However, based on the source and nature of the discharge, monitoring requirements will be included in the permit.

The current monitoring and limitations at Outfall 007 also includes arsenic, cadmium, total chromium, copper, iron, lead, manganese, mercury, nickel, zinc, total ammonia (as N), chloride, free cyanide, and fluoride. As part of the WLA completed for this permit modification, these parameters were evaluated at Outfall 007 after relocation of the process and nonprocess wastewaters to Outfall 010. None of these parameters demonstrated a reasonable potential to contribute or cause an exceedance of a water quality criterion. Therefore, monitoring requirements are not included for Outfall 007 after the relocation.

Outfall 001 - Cycles of Concentration Footnote Request

Regarding the request that a clarifying footnote is added to the cycles of concentration (COC) row of Table 1 in Part I.A.1 of the permit stating the following:

“COCs may be calculated as the cooling tower blowdown (CTBD) conductivity divided by the makeup water conductivity, and the permittee may use engineering calculations to estimate blowdown or makeup water conductivity during times when the conductivity measurement device is inoperable, being maintained, on holidays, or other infrequent circumstances.”

IDEM agrees to this request and will add a sentence to the footnote stating, “The permittee must report on the MMRs the number of hours in which COCs were calculated using estimated values.” This is in order to ensure that IDEM is informed when the permittee uses estimations versus when the conductivity measurement device is operating.

Outfall 001 - Compliance Schedule

The permittee was granted a 3-year schedule of compliance, as outlined in Part I.G. of the permit, to comply with WQBELs at the existing Outfall 001 and Outfall 007 locations (discharge

to Lick Creek) in the NPDES renewal permit as issued on May 7, 2025. The schedule of compliance went into effect on the effective date of the current permit, which was June 1, 2025. The permittee shall notify IDEM at least 30 days prior to initiation of discharge through Outfall 009 and Outfall 010 (the newly relocated Outfalls 001 and 007, respectively) by written correspondence to the Compliance Data Section of the Office of Water Quality.

3.3 Antibacksliding

Indiana's prohibitions on backsliding under 327 IAC 5-2-10(a)(11) are applicable to BPJ case-by-case technology-based effluent limitations, when proposed to be increased based on subsequently promulgated effluent guidelines under Section 304(b) of the CWA, and limitations based on Indiana water quality standards or treatment standards (327 IAC 5-10). Prohibitions on other types of backsliding (e.g., backsliding from limitations derived from effluent guidelines, from existing case-by-case limitations to new case-by-case limitations, and from conditions such as monitoring requirements that are not effluent limitations) are covered under federal regulation at 40 CFR 122.44(l)(1).

Under 327 IAC 5-2-10(a)(11), unless an exception under 327 IAC 5-2-10(a)(11)(B) applies, a permit may not be renewed, reissued or modified to contain effluent limitations that are less stringent than the comparable effluent limitations in the previous permit. For effluent limitations based on Indiana water quality or treatment standards, less stringent effluent limitations may also be allowed if they are in compliance with Section 303(d)(4) of the CWA. Under 40 CFR 122.44(l)(1), a permit may not be renewed or reissued to contain less stringent interim effluent limitations, standards or conditions than the final effluent limitations, standards or conditions in the previous permit unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR 122.62.

The limitations in the permit for Copper at Outfall 009 are less stringent than the comparable limitations for those parameters in the previous permit. Under 327 IAC 5-2-10(11)(B)(i), these less stringent limitations do not violate the antibacksliding requirements since the outfall relocation project is a substantial alteration to the permitted facility.

The monitoring requirements instead of limits for Ammonia, Boron, and Selenium at Outfall 009 do not violate the antibacksliding requirements because WQBELs are no longer required once the outfall has been relocated, which is a substantial alteration to the permitted facility per 327 IAC 5-2-10(11)(B)(i).

The monitoring requirements instead of limits for Boron, Chloride, Fluoride, Mercury, and Sulfate at Outfall 010 do not violate the antibacksliding requirements because WQBELs are no longer required once the outfall has been relocated, which is a substantial alteration to the permitted facility per 327 IAC 5-2-10(11)(B)(i).

3.4 Antidegradation

Indiana's Antidegradation Standards and Implementation procedures are outlined in 327 IAC 2-1.3. The antidegradation standards established by 327 IAC 2-1.3-3 apply to all surface waters of the state. The permittee is prohibited from undertaking any deliberate action that would result in

a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality, or an antidegradation demonstration submitted and approved in accordance 327 IAC 2-1.3-5 and 2-1.3-6.

The new or increased loading of Copper at Outfall 009 established in the NPDES permit does not result in a significant lowering of water quality as defined in 327 IAC 2-1.3-2(50). The finding of no significant lowering was determined by conducting a wasteload allocation (WLA) analysis. The WLA was completed by Office of Water Quality (OWQ) Permits Branch staff on December 2, 2025.

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 Permit Processing/Public Comment

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

Appendix A
Waste Load Allocation

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: December 2, 2025

To: Jodi Wray
Industrial NPDES Permits Section

From: John Elliott
Permits Branch

Subject: Wasteload Allocation Report for AES Indiana (AESI) Petersburg Generating Station in Pike County (IN0002887, WLA002836)

A reasonable potential analysis was done for the modification of the NPDES permit for AES Indiana (AESI) Petersburg Generating Station to permit the relocation of Outfalls 001 and 007 from Lick Creek to White River. Due to the relocation of these outfalls, new outfall numbers have been given. Outfall 001 is Outfall 009 and the relocation of the wastestreams associated with the previous Outfall 007 is Outfall 010. Water quality-based effluent limitations (WQBELs) for total chromium, copper, iron and zinc which may have applicable technology-based effluent limitations (TBELs) were also calculated for Outfall 009. In addition, the toxicity reduction evaluation (TRE) triggers for acute and chronic whole effluent toxicity (WET) were calculated for Outfall 009. The effluent flow used in the analysis was 7.0 mgd for Outfall 009 and 0.43 mgd for Outfall 010. The facility is proposing to keep Outfall 007 in the permit upon relocation and it will discharge on an intermittent basis to Lick Creek during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010. The effluent flow used in the analysis was 0.1 mgd for Outfall 007. Outfall 001 will no longer have a discharge once the relocation project is complete.

White River is designated for full-body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. The assessment units for White River in the vicinity of the outfalls (INW02A1_02 for Outfall 009 and INW02A1_03 for Outfall 010) are included on the 2024 303(d) list for PCBs in fish tissue, biological integrity and *E. coli*. A TMDL for White River has not been completed and is not planned for either of these assessment units. The Q_{7,10} of White River upstream of the outfalls is 837 cfs. Lick Creek is designated for full body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. The assessment unit for Lick Creek (INW02A1_T1001) is not on the 2024 303(d) list and a TMDL has not been completed and is not planned for this assessment unit. The Q_{7,10} of Lick Creek upstream of Outfall 007 is zero cfs.

The reasonable potential analysis for the proposed Outfall 009 to White River is included in Tables 1 and 2. The calculation of the monthly average maximum projected effluent quality (PEQ) and daily maximum PEQ for the pollutants of concern is included in Table 1. The results of the reasonable potential statistical procedure are included in Table 2. The results show that there is a reasonable potential to exceed a water quality criterion for mercury, but not for any of the other pollutants considered in the analysis. Therefore, WQBELs are only required for mercury based on the reasonable potential statistical procedure. The facility is covered under the federal effluent limitation guideline (ELG) for Steam Electric Power Generating. The ELG includes specific limitations for copper and iron for non-chemical metal cleaning and for total chromium and zinc for cooling tower blowdown. WQBELs for these pollutants of concern were calculated for direct comparison to the ELGs in case they are applicable or become applicable based on facility operations. The WQBELs for these pollutants of concern, and for mercury, are included in Table 3. In addition, WQBELs for acute and chronic WET are included in Table 3 and may be used as toxicity reduction evaluation (TRE) triggers.

The reasonable potential analysis for the proposed Outfall 010 to White River is included in Tables 4 and 5. The calculation of the monthly average and daily maximum PEQs for the pollutants of concern is included in Table 4. The results of the reasonable potential statistical procedure are included in Table 5. The results show that there is not a reasonable potential to exceed a water quality criterion for any of the pollutants considered in the analysis. Therefore, WQBELs are not required for any of these pollutants of concern based on the reasonable potential statistical procedure.

The reasonable potential analysis for the intermittent Outfall 007 to Lick Creek is included in Tables 6 and 7. The calculation of the monthly average and daily maximum PEQs for the pollutants of concern is included in Table 6. The results of the reasonable potential statistical procedure are included in Table 7. The results show that there is not a reasonable potential to exceed a water quality criterion for any of the pollutants considered in the analysis. Therefore, WQBELs are not required for any of these pollutants of concern based on the reasonable potential statistical procedure.

The reasonable analysis was conducted and WQBELs calculated based on the relocation of outfalls occurring after closure of the coal combustion residual (CCR) landfill and conversion of all electric generating units from coal to gas. The documentation of the wasteload allocation analysis is included as an attachment.

TABLE 1
Calculation of Projected Effluent Quality
For AESI Petersburg Generating Station in Pike County
Outfall 009 to White River
(IN0002887, WLA002836)

Parameter	Monthly Average PEQ					Daily Maximum PEQ				
	Maximum Monthly Average (mg/l)	Number of Monthly Averages	CV	Multiplying Factor	Monthly Average PEQ (mg/l)	Maximum Daily Sample (mg/l)	Number of Daily Samples	CV	Multiplying Factor	Daily Maximum PEQ (mg/l)
Arsenic	0.012	43	0.8	1.1	0.013	0.022	86	1.0	0.9	0.020
Cadmium	0.0015	43	1.0	1.1	0.0017	0.0028	86	1.2	0.8	0.0022
Total Chromium	0.033	43	1.1	1.1	0.036	0.060	86	1.3	0.8	0.048
Copper	0.016	43	0.6	1.1	0.018	0.016	86	0.6	0.9	0.014
Iron	0.76	43	0.8	1.1	0.84	0.90	86	1.0	0.9	0.81
Lead	0.002	43	0.9	1.1	0.0022	0.002	86	0.9	0.9	0.0018
Manganese	0.37	43	1.0	1.1	0.41	0.70	86	1.5	0.8	0.56
Mercury					0.000055	0.0000364	22	0.9	1.5	0.000055
Nickel	0.027	43	0.6	1.1	0.030	0.028	86	0.7	0.9	0.025
Selenium (lotic)	0.041	43	0.9	1.1	0.045	0.070	88	1.1	0.8	0.056
Zinc	0.17	43	1.0	1.1	0.19	0.30	86	1.4	0.8	0.24
Total Ammonia (as N)										
Summer	0.75	27	0.6	1.2	0.900	1.0	54	0.7	1.0	1.0
Winter	3.9	16	1.8	2.3	9.0	7.61	32	2.6	1.5	11.4
Boron	23.7	43	0.8	1.1	26	38	86	1.1	0.9	34
Chloride	610	43	0.6	1.1	670	777	86	0.7	0.9	700
Cyanide, Free	0.014	43	0.6	1.1	0.015	0.018	86	0.7	0.9	0.016
Fluoride	3.31	43	0.6	1.1	3.6	5.39	86	0.8	0.9	4.9
Sulfate	2,465	43	0.5	1.1	2,700	3,300	86	0.5	0.9	3,000

December 2, 2025

TABLE 2
Results of Reasonable Potential Statistical Procedure
For AESI Petersburg Generating Station in Pike County
Outfall 009 to White River
(IN0002887, WLA002836)

Parameter	Monthly Average Comparison			Daily Maximum Comparison			Reasonable Potential to Exceed?
	Monthly Average PEQ (mg/l)	Monthly Average PEL* (mg/l)	PEQ > PEL?	Daily Maximum PEQ (mg/l)	Daily Maximum PEL* (mg/l)	PEQ > PEL?	
Arsenic	0.013	0.39	No	0.020	0.68	No	No
Cadmium	0.0017	0.0048	No	0.0022	0.0083	No	No
Total Chromium	0.036	4.0	No	0.048	7.0	No	No
Copper	0.018	0.044	No	0.014	0.075	No	No
Iron	0.84	3.2	No	0.81	5.5	No	No
Lead	0.0022	0.26	No	0.0018	0.45	No	No
Manganese	0.41	9.9	No	0.56	17	No	No
Mercury	0.000055	0.000012	Yes	0.000055	0.000020	Yes	Yes
Nickel	0.030	1.1	No	0.025	1.8	No	No
Selenium (lotic)	0.045	0.11	No	0.056	0.26	No	No
Zinc	0.19	0.27	No	0.24	0.47	No	No
Total Ammonia (as N)							
Summer	0.90	14	No	1.0	24.3	No	No
Winter	9.0	14	No	11.4	24.3	No	No
Boron	26	47	No	34	82	No	No
Chloride	670	760	No	700	1,300	No	No
Cyanide, Free	0.015	0.025	No	0.016	0.044	No	No
Fluoride	3.6	18	No	4.9	31	No	No
Sulfate	2,700	55,000	No	3,000	95,000	No	No

* Based on an effluent flow of 7.0 mgd.

December 2, 2025

TABLE 3
Water Quality-based Effluent Limitations
For AESI Petersburg Generating Station in Pike County
Outfall 009 to White River
(IN0002887, WLA002836)

Parameter	Quality or Concentration*			Quantity or Loading*			Monthly Sampling Frequency
	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	
Total Chromium	4.0	7.0	mg/l	240	410	lbs/day	2
Copper	0.044	0.075	mg/l	2.6	4.4	lbs/day	2
Iron	3.2	5.5	mg/l	190	320	lbs/day	2
Mercury	0.000012	0.000020	mg/l	0.00070	0.0012	lbs/day	1
Zinc	0.27	0.47	mg/l	16	27	lbs/day	2
Whole Effluent Toxicity							
Acute (without MZ)		1.0	TUa				
Chronic	20.3		TUc				

* Based on an effluent flow of 7.0 mgd.

December 2, 2025

TABLE 4
Calculation of Projected Effluent Quality
For AESI Petersburg Generating Station in Pike County
Outfall 010 to White River
(IN0002887, WLA002836)

Parameter	Monthly Average PEQ					Daily Maximum PEQ				
	Maximum Monthly Average (mg/l)	Number of Monthly Averages	CV	Multiplying Factor	Monthly Average PEQ (mg/l)	Maximum Daily Sample (mg/l)	Number of Daily Samples	CV	Multiplying Factor	Daily Maximum PEQ (mg/l)
Arsenic	0.032	42	0.3	1.0	0.032	0.036	85	0.4	0.9	0.032
Cadmium	0.0015	42	1.1	1.2	0.0018	0.0028	85	1.3	0.8	0.0022
Total Chromium	0.033	42	1.1	1.2	0.040	0.060	85	1.3	0.8	0.048
Copper	0.013	42	1.2	1.2	0.016	0.021	85	1.4	0.8	0.017
Iron	0.54	42	0.6	1.1	0.59	0.90	85	0.8	0.9	0.81
Lead	0.0028	42	1.0	1.1	0.0031	0.0050	85	1.2	0.8	0.0040
Manganese	1.2	42	0.5	1.1	1.3	1.5	85	0.6	0.9	1.4
Mercury	0.0000088	21	0.4	1.2	0.000011	0.0000139	23	0.6	1.3	0.000018
Nickel	0.11	42	1.4	1.2	0.13	0.20	85	1.7	0.8	0.16
Selenium	0.017	41	0.5	1.1	0.019	0.029	84	0.7	0.9	0.026
Zinc	0.17	42	1.1	1.2	0.20	0.30	85	1.5	0.8	0.24
Total Ammonia (as N)										
Summer	1.5	27	1.0	1.4	2.1	2.5	54	1.2	1.0	2.5
Winter	0.59	15	0.5	1.4	0.83	0.98	31	0.7	1.2	1.2
Boron	21.1	42	0.7	1.1	23	38.6	86	0.9	0.9	35
Chloride	175	42	0.3	1.0	180	276	85	0.4	0.9	250
Cyanide, Free	0.012	42	0.4	1.1	0.013	0.018	85	0.5	0.9	0.016
Fluoride	2.32	42	0.5	1.1	2.6	4.32	85	0.7	0.9	3.9
Sulfate	2,335	42	0.2	1.0	2,300	2,510	86	0.3	0.9	2,300

December 2, 2025

TABLE 5
Results of Reasonable Potential Statistical Procedure
For AESI Petersburg Generating Station in Pike County
Outfall 010 to White River
(IN0002887, WLA002836)

Parameter	Monthly Average Comparison			Daily Maximum Comparison			Reasonable Potential to Exceed?
	Monthly Average PEQ (mg/l)	Monthly Average PEL* (mg/l)	PEQ > PEL?	Daily Maximum PEQ (mg/l)	Daily Maximum PEL* (mg/l)	PEQ > PEL?	
Arsenic	0.032	0.39	No	0.032	0.68	No	No
Cadmium	0.0018	0.0048	No	0.0022	0.0083	No	No
Total Chromium	0.040	4.0	No	0.048	7.0	No	No
Copper	0.016	0.044	No	0.017	0.075	No	No
Iron	0.59	3.2	No	0.81	5.5	No	No
Lead	0.0031	0.26	No	0.0040	0.45	No	No
Manganese	1.3	9.9	No	1.4	17	No	No
Mercury	0.000011	0.000012	No	0.000018	0.000020	No	No
Nickel	0.13	1.1	No	0.16	1.8	No	No
Selenium	0.019	0.11	No	0.026	0.26	No	No
Zinc	0.20	0.27	No	0.24	0.47	No	No
Total Ammonia (as N)							
Summer	2.1	14	No	2.5	24.3	No	No
Winter	0.83	14	No	1.2	24.3	No	No
Boron	23	47	No	35	82	No	No
Chloride	180	760	No	250	1,300	No	No
Cyanide, Free	0.013	0.025	No	0.016	0.044	No	No
Fluoride	2.6	18	No	3.9	31	No	No
Sulfate	2,300	55,000	No	2,300	95,000	No	No

* Based on an effluent flow of 0.43 mgd.

December 2, 2025

TABLE 6
Calculation of Projected Effluent Quality
For AESI Petersburg Generating Station in Pike County
Outfall 007 to Lick Creek
(IN0002887, WLA002836)

Parameter	Monthly Average PEQ					Daily Maximum PEQ				
	Maximum Monthly Average (mg/l)	Number of Monthly Averages	CV	Multiplying Factor	Monthly Average PEQ (mg/l)	Maximum Daily Sample (mg/l)	Number of Daily Samples	CV	Multiplying Factor	Daily Maximum PEQ (mg/l)
Arsenic	0.032	42	0.3	1.0	0.032	0.036	85	0.4	0.9	0.032
Cadmium	0.0015	42	1.1	1.2	0.0018	0.0028	85	1.3	0.8	0.0022
Total Chromium	0.033	42	1.1	1.2	0.040	0.060	85	1.3	0.8	0.048
Copper	0.013	42	1.2	1.2	0.016	0.021	85	1.4	0.8	0.017
Iron	0.54	42	0.6	1.1	0.59	0.90	85	0.8	0.9	0.81
Lead	0.0028	42	1.0	1.1	0.0031	0.0050	85	1.2	0.8	0.0040
Manganese	1.2	42	0.5	1.1	1.3	1.5	85	0.6	0.9	1.4
Mercury	0.0000088	21	0.4	1.2	0.000011	0.0000139	23	0.6	1.3	0.000018
Nickel	0.11	42	1.4	1.2	0.13	0.20	85	1.7	0.8	0.16
Selenium	0.017	41	0.5	1.1	0.019	0.029	84	0.7	0.9	0.026
Zinc	0.17	42	1.1	1.2	0.20	0.30	85	1.5	0.8	0.24
Total Ammonia (as N)										
Summer	1.5	27	1.0	1.4	2.1	2.5	54	1.2	1.0	2.5
Winter	0.59	15	0.5	1.4	0.83	0.98	31	0.7	1.2	1.2
Boron	21.1	42	0.7	1.1	23	38.6	86	0.9	0.9	35
Chloride	175	42	0.3	1.0	180	276	85	0.4	0.9	250
Cyanide, Free	0.012	42	0.4	1.1	0.013	0.018	85	0.5	0.9	0.016
Fluoride	2.32	42	0.5	1.1	2.6	4.32	85	0.7	0.9	3.9
Sulfate	2,335	42	0.2	1.0	2,300	2,510	86	0.3	0.9	2,300

December 2, 2025

TABLE 7
Results of Reasonable Potential Statistical Procedure
For AESI Petersburg Generating Station in Pike County
Outfall 007 to Lick Creek
(IN0002887, WLA002836)

Parameter	Monthly Average Comparison			Daily Maximum Comparison			Reasonable Potential to Exceed?
	Monthly Average PEQ (mg/l)	Monthly Average PEL* (mg/l)	PEQ > PEL?	Daily Maximum PEQ (mg/l)	Daily Maximum PEL* (mg/l)	PEQ > PEL?	
Arsenic	0.032	0.47	No	0.032	0.68	No	No
Cadmium	0.0018	0.0057	No	0.0022	0.0083	No	No
Total Chromium	0.040	4.8	No	0.048	7.0	No	No
Copper	0.016	0.052	No	0.017	0.075	No	No
Iron	0.59	3.8	No	0.81	5.5	No	No
Lead	0.0031	0.19	No	0.0040	0.45	No	No
Manganese	1.3	12	No	1.4	17	No	No
Mercury	0.000011	0.000012	No	0.000018	0.000020	No	No
Nickel	0.13	1.3	No	0.16	1.8	No	No
Selenium	0.019	0.044	No	0.026	0.064	No	No
Zinc	0.20	0.32	No	0.24	0.47	No	No
Total Ammonia (as N)							
Summer	2.1	16.6	No	2.5	24.3	No	No
Winter	0.83	16.6	No	1.2	24.3	No	No
Boron	23	56	No	35	82	No	No
Chloride	180	710	No	250	1,000	No	No
Cyanide, Free	0.013	0.030	No	0.016	0.044	No	No
Fluoride	2.6	21	No	3.9	31	No	No
Sulfate	2,300	3,500	No	2,300	5,100	No	No

* Based on an effluent flow of 0.10 mgd.

December 2, 2025

Documentation of Wasteload Allocation Analysis For Discharges in the Non-Great Lakes System

Analysis By: John Elliott

Date: December 2, 2025

WLA Number: 002836

Facility Information

- **Name:** AES Indiana (AESI) Petersburg Generating Station
- **NPDES Permit Number:** IN0002887
- **Permit Expiration Date:** May 31, 2030
- **County:** Pike
- **Purpose of Analysis:** Reasonable potential analysis for Outfalls 009 and 010 based on a change in the receiving stream from Lick Creek to White River. Reasonable potential analysis for Outfall 007 that will discharge on an intermittent basis to Lick Creek during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010. The analysis was based on the relocation of outfalls occurring after closure of the coal combustion residual (CCR) landfill and conversion of all electric generating units from coal to gas.
- **Outfall:** 009 (see Attachment 1)
- **Facility Operations:** Generation of electrical power by combustion of oil and natural gas; the operations contributing wastewater to the effluent for Outfall 009 include: stormwater and “other” WWTP wastewaters consisting of coal pile runoff, cooling tower blowdown, low volume wastewater, treated sanitary wastewater (Internal Outfall 101), non-chemical metal cleaning wastewater, water storage tank overflows, and water treatment residuals.
- **Applicable Effluent Guidelines:** 40 CFR Part 423 Steam Electric Power Generating Point Source Category; the applicable portions of this effluent limitation guideline (ELG) include limits for the following pollutants with water quality criteria: copper and iron (non-chemical metal cleaning); total chromium and zinc (cooling tower blowdown; a waiver was granted in the current permit renewal for total chromium and zinc)
- **Type of Treatment:** Neutralization, sedimentation and media filtration
- **Current Permitted Flow:** 7.2 mgd (effluent flow used in WLA002649 dated November 7, 2022 to calculate WQBELs for current permit; highest monthly average flow reported on monthly monitoring reports for the period June 2020 through May 2022 and it occurred in September 2021)
- **Effluent Flow for WLA Analysis:** 7.0 mgd (Total of average flows for individual sources listed on Form 2C of the August 12, 2025 addendum to the October 25, 2023 permit modification application. These flows are representative of operations after landfill closure and unit conversion from coal to gas. For comparison, the highest monthly average flow reported on monthly monitoring reports for the period September 2023 through August 2025 was 4.9 mgd and occurred in December 2023)
- **Current Effluent Limits:** The following table only contains parameters that will be included in this WLA analysis. The final limits become effective thirty-six (36) months from the permit effective date of June 1, 2025.

Parameter	Monthly Average		Daily Maximum		Measurement Frequency
	(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
Interim					
Ammonia (as N)	Report	--	Report	--	2 X Monthly
Boron	Report	--	Report	--	2 X Monthly
Cadmium	0.002	--	0.0035	--	2 X Monthly
Cyanide (free)	Report	--	Report	--	2 X Monthly
Fluoride	Report	--	Report	--	2 X Monthly
Selenium	0.033	--	0.057	--	2 X Monthly
Final					
Ammonia (as N)					
Summer	1.6	--	3.9	--	2 X Monthly
Winter	3.2	--	7.7	--	2 X Monthly
Boron	7.3	--	13	--	2 X Monthly
Cadmium	0.0015	--	0.0025	--	2 X Monthly
Cyanide (free)	0.0049	--	0.0085	--	2 X Monthly
Fluoride	1.9	--	3.3	--	2 X Monthly
Selenium	0.0031	--	0.0075	--	2 X Monthly
Other					
Arsenic	Report	--	Report	--	2 X Monthly
Chromium (total)	Report	--	Report	--	2 X Monthly
Copper	0.022	--	0.039	--	2 X Monthly
Iron	0.96	--	0.96	--	2 X Monthly
Lead	Report	--	Report	--	2 X Monthly
Manganese	Report	--	Report	--	2 X Monthly
Mercury (ng/l)	12	--	20	--	6 X Annually
Nickel	Report	--	Report	--	2 X Monthly
Zinc	Report	--	Report	--	2 X Monthly
Chloride	Report	--	Report	--	2 X Monthly
Sulfate	Report	--	Report	--	2 X Monthly

- **Outfall:** 010 and 007 (see Attachment 1)
- **Facility Operations:** Generation of electrical power by combustion of oil and natural gas; the operations contributing wastewater to the effluent for Outfalls 010 and 007 include: CCR landfill runoff (Outfall 001S) and stormwater discharge from Outfall 004S. Outfall 007 is an intermittent outfall to be utilized during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010 from Lick Creek to a direct discharge to White River.
- **Applicable Effluent Guidelines:** 40 CFR Part 423 Steam Electric Power Generating Point Source Category; there are no portions of this ELG applicable to these outfalls that include limits for pollutants with water quality criteria
- **Type of Treatment:** Sedimentation
- **Current Permitted Flow (Outfall 007):** 0.35 mgd (effluent flow used in WLA002649 dated November 7, 2022 to calculate WQBELs for current permit; highest monthly average flow reported on monthly monitoring reports for the period June 2020 through May 2022 and it occurred in November 2020)
- **Effluent Flow for WLA Analysis (Outfall 010):** 0.43 mgd (Total of average flows for individual sources listed on Form 2C of the August 12, 2025 addendum to the October 25, 2023 permit modification application. These flows are representative of operations after landfill closure and unit conversion from coal to gas. For comparison, the highest monthly average flow reported on monthly monitoring reports for the period September 2023 through August 2025 was 0.25 mgd and occurred in June 2025)
- **Effluent Flow for WLA Analysis (Outfall 007):** 0.1 mgd (The effluent flow does not impact the WLA analysis for this intermittent discharge. Therefore, a minimum flow was used to complete the WLA spreadsheet input requirements. Based on the August 12, 2025 addendum to the October 25, 2023 permit modification application, the pumps used to convey stormwater from Outfall 007 to the new Outfall 010 location on White River will be designed to convey, at a minimum, the flow resulting from a one (1)-year, 24-hour storm event. The maximum planned flow for Outfall 010 listed on the water balance diagram included with the modification addendum is 9,000 gpm (13 mgd).
- **Current Effluent Limits (Outfall 007):** The following table only contains parameters that will be included in this WLA analysis. The final limits become effective thirty-six (36) months from the permit effective date of June 1, 2025.

Parameter	Monthly Average		Daily Maximum		Measurement Frequency
	(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
Interim					
Ammonia (as N)	Report	--	Report	--	2 X Monthly
Boron	8.3	--	14	--	2 X Monthly
Cadmium	0.002	--	0.0035	--	2 X Monthly
Copper	Report	--	Report	--	2 X Monthly
Cyanide (free)	Report	--	Report	--	2 X Monthly
Fluoride	Report	--	Report	--	2 X Monthly
Manganese	Report	--	Report	--	2 X Monthly
Nickel	Report	--	Report	--	2 X Monthly
Selenium	0.033	--	0.057	--	2 X Monthly
Zinc	Report	--	Report	--	2 X Monthly
Chloride	Report	--	Report	--	2 X Monthly
Sulfate	1500	--	2600	--	2 X Monthly
Final					
Ammonia (as N)					
Summer	1.6	--	3.9	--	2 X Monthly
Winter	3.2	--	7.7	--	2 X Monthly
Boron	7.3	--	13	--	2 X Monthly
Cadmium	0.0015	--	0.0025	--	2 X Monthly
Copper	0.023	--	0.040	--	2 X Monthly
Cyanide (free)	0.0049	--	0.0085	--	2 X Monthly
Fluoride	1.9	--	3.3	--	2 X Monthly
Manganese	3.9	--	6.7	--	2 X Monthly
Nickel	0.10	--	0.17	--	2 X Monthly
Selenium	0.0031	--	0.0075	--	2 X Monthly
Zinc	0.23	--	0.40	--	2 X Monthly
Chloride	320	--	550	--	2 X Monthly
Sulfate	1500	--	2500	--	2 X Monthly
Other					
Arsenic	Report	--	Report	--	2 X Monthly
Chromium (total)	Report	--	Report	--	2 X Monthly
Iron	Report	--	Report	--	2 X Monthly
Lead	Report	--	Report	--	2 X Monthly
Mercury (ng/l)	12	--	20	--	6 X Annually

Pollutants of Concern for WLA Analysis

After a review of Form 2C data provided for Outfall 001 as part of the October 25, 2023 permit modification application, for Outfall 007 as part of the September 19, 2024 permit renewal addendum, and for intermittent Outfall 007 as part of the August 12, 2025 addendum to the October 25, 2023 permit modification application, the pollutants of concern were limited to those monitored for Outfalls 001 and 007 as part of the prior and recently renewed permits.

Outfall 009

Pollutants of Concern and Type of WLA Analysis		
Parameter	Type of Analysis	Reason for Inclusion on Pollutants of Concern List
Copper and Iron	RPE, WQBELs	Limited in current permit and Federal effluent limitation guideline applies.
Ammonia (as N), Boron, Cadmium, Cyanide (free), Fluoride, Mercury, and Selenium	RPE	Limited in current permit.
Arsenic, Chromium (total), Lead, Manganese, Nickel, Zinc, Chloride, and Sulfate	RPE	Monitored in current permit.
Whole Effluent Toxicity (WET)	WQBEL	Acute and chronic toxicity reduction evaluation (TRE) triggers may be included in the permit.

Outfalls 010 and 007

Pollutants of Concern and Type of WLA Analysis		
Parameter	Type of Analysis	Reason for Inclusion on Pollutants of Concern List
Ammonia (as N), Boron, Cadmium, Copper, Cyanide (free), Fluoride, Manganese, Mercury, Nickel, Selenium, Zinc, Chloride and Sulfate	RPE	Limited in current permit at Outfall 007.
Arsenic, Chromium (total), Iron and Lead	RPE	Monitored in current permit at Outfall 007.

Receiving Stream Information for Outfalls 009 and 010

- **Receiving Stream:** White River
- **Public Water System Intakes Downstream:** There is no public water system intake downstream of the outfall which would affect this analysis.
- **Designated Stream Use:** White River is designated for full body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community.
- **12 Digit HUC:** 05120201001
- **Assessment Unit:** INW02A1_02 for Outfall 009 and INW02A1_03 for Outfall 010
- **Consolidated List Category 4 (2024):** The above assessment units are not included in Category 4A for any designated use.
- **Consolidated List Category 5 (303(d) List) (2024):** The above assessment units are on the

2024 303(d) list for PCBs in fish tissue, biological integrity and *E. coli*.

- **TMDL Information:** A TMDL for White River has not been completed and is not planned for either of the above assessment units.

- **Q1,10 (Outfall):** 791 cfs (511 mgd)
- **Q7,10 (Outfall):** 837 cfs (541 mgd)
- **Q30,10 (Outfall):** 925 cfs (598 mgd)
- **Q50 (Outfall):** 7020 cfs (4538 mgd)

(USGS gaging station 03374000 White River at Petersburg is located about 2 miles downstream of the facility. The Q1,10 at this gage is 791 cfs, the Q7,10 is 837 cfs, the Q30,10 is 925 cfs and the Q50 is 7020 cfs. The drainage area at this gage is 11,125 mi². The drainage area and stream design flows were obtained from the book “Low-Flow Characteristics for Selected Streams in Indiana” by Kathleen K. Fowler and John T. Wilson, published in 2015 by the USGS. The drainage area of White River upstream of the facility is 11,111 mi² and was obtained from the USGS StreamStats website. The low-flow values at the gage were used without adjustment for drainage area.)

- **Nearby Dischargers:** Hoosier Energy – Frank E. Ratts Generating Station (IN0004391) discharges stormwater runoff from legacy ash pond operations to the White River downstream of AESI Petersburg. Outfall 003 includes stormwater from the former fly ash pond, which receives landfill leachate, and Outfall 004 includes stormwater from the former bottom ash pond. However, this discharger will not impact the current analysis.

Receiving Stream Information for Outfall 007

- **Receiving Stream:** Lick Creek
- **Public Water System Intakes Downstream:** There is no public water system intake downstream of the outfall which would affect this analysis.
- **Designated Stream Use:** Lick Creek is designated for full body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community.
- **12 Digit HUC:** 051202021001
- **Assessment Unit:** INW02A1_T1001
- **Consolidated List Category 4 (2024):** The above assessment unit is not included in Category 4A for any designated use.
- **Consolidated List Category 5 (303(d) List) (2024):** The above assessment unit is not on the 2024 303(d) list.
- **TMDL Information:** A TMDL for Lick Creek has not been completed and is not planned for the above assessment unit.
- **Q1,10 (Outfall):** 0.0 cfs
- **Q7,10 (Outfall):** 0.0 cfs
- **Q30,10 (Outfall):** 0.0 cfs
- **Q50 (Outfall):** 0.7 cfs (0.45 mgd)

(USGS gaging station 03376260 Flat Creek near Otwell was used to determine the low-flow values for Lick Creek. The Q1,10 at this gage is 0.0 cfs, the Q7,10 is 0.0 cfs, the Q30,10 is 0.0 cfs and the Q50 is 4.7 cfs. The drainage area at this gage is 21.3 mi². The drainage area and stream design flows were obtained from the book “Low-Flow Characteristics for Selected Streams in Indiana” by Kathleen K. Fowler and John T. Wilson, published in 2015 by the USGS. The drainage area of Lick Creek upstream of the facility is 3.0 mi² and was obtained

from the USGS StreamStats website. The low-flow values upstream of Outfall 007 were determined using the ratio of drainage areas.)

- **Nearby Dischargers:** With the relocation of Outfalls 001 and 007 from Lick Creek to White River, there will be no other discharges to Lick Creek that will impact this analysis.

Calculation of Preliminary Effluent Limitations for Outfalls 009 and 010

Based on the water balance diagram included with the August 12, 2025 addendum to the October 25, 2023 permit modification application, on average, about 16 mgd (11,140 gpm) of intake water will be utilized by the facility. The proposed Outfall 009 location is on the north (upstream) side of the Lick Creek confluence with White River. The White River intake for the facility is located about 0.4 miles downstream of Lick Creek. Outfall 002 which discharges excess intake water, strainer backwash and stormwater is about 500 feet downstream of the intake. The proposed Outfall 010 location is about 1,400 feet downstream of the intake. The distance between the proposed locations of Outfalls 009 and 010 to White River is about 0.7 miles. The loss of intake flow is small in comparison to the available White River dilution, so was not considered in the WLA analysis. The only pollutant of concern for Outfall 002 is total residual chlorine due to chlorination of the intake water. The pollutants of concern for Outfalls 009 and 010 are the same. Considering the size of the receiving stream and large available dilution, the calculation of preliminary effluent limitations (PELs) was simplified by assuming overlapping mixing zones for Outfalls 009 and 010. Therefore, the flows for Outfalls 009 and 010 were combined to calculate PELs for all pollutants of concern for these two outfalls.

The background concentration of the pollutants of concern in White River upstream of the AESI Petersburg Generating Station proposed Outfalls 009 and 010 is a combination of flows from the West Fork of the White River and the East Fork of the White River which combine to form the White River about one mile upstream of the facility. The nearest IDEM fixed water quality monitoring station on White River is downstream of the facility at SR 61 in Petersburg (WR-46, White River at SR 61, Petersburg). Although this fixed station is downstream of the facility, the data are still the most representative available data considering the large flow of the White River. The last five years of available data from this fixed station are included in Attachments 2-1 through 2-4. Mercury is listed as a bioaccumulative chemical of concern (BCC) under 327 IAC 2-1-9(5). Mixing zones for all discharges of BCCs to waters in the non-Great Lakes system are prohibited after January 1, 2004. Therefore, the criteria for mercury were applied to the undiluted discharge in accordance with 327 IAC 5-2-11.1(b)(6). The background concentrations of the pollutants of concern were determined by calculating the geometric mean of available instream data. The background concentration of free cyanide was set equal to zero based on the nature of this pollutant and the absence of available instream data. The survey data include values reported as less than the limit of quantitation (LOQ). These values were set equal to one-half the LOQ.

The sulfate criterion at 327 IAC 2-1-6(a)(8) is dependent on the stream chloride and hardness concentrations and the acute and chronic chloride criteria at 327 IAC 2-1-6(a)(6) are dependent on the stream sulfate and hardness concentrations. In addition, several of the metals in the discharges have aquatic life criteria that are a function of hardness. Downstream water quality data is typically used to determine the water quality characteristics for calculating water quality criteria. The 50th percentile downstream chloride, sulfate and hardness were calculated from data

collected at fixed station WR-46. The last five years of available data from this fixed station are included in Attachment 3-1.

The 75th percentile downstream temperature and pH are used to determine the ammonia (as N) criteria. Wasteload allocations based on acute and chronic ammonia (as N) criteria were developed. The temperature and pH downstream of the chronic mixing zone were determined using data from fixed station WR-46. The last five years of available data from this fixed station are included in Attachment 3-2. Data are not available to determine the pH downstream of the acute mixing zone. Therefore, default summer/winter pH values of 7.8/7.8 s.u. were used.

The coefficient of variation used to calculate monthly average and daily maximum preliminary effluent limitations (PELs) was set equal to the default value of 0.6. The number of samples per month used to calculate monthly average PELs was set equal to one for mercury and to two for the other pollutants of concern based on the expected monitoring frequency. The spreadsheet used to calculate PELs for the combination of Outfalls 009 and 010 is included in Attachment 4.

Calculation of Preliminary Effluent Limitations for Outfall 007

Discharge from Outfall 007 will only occur during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010 to White River. Based on the August 12, 2025 addendum to the October 25, 2023 permit modification application, the pumps that will be used to convey stormwater from Outfall 007 to Outfall 010 will be designed to convey, at a minimum, the flow resulting from a one (1)-year, 24-hour storm event. Therefore, discharge would typically occur once or less in any given month. For this intermittent discharge, wasteload allocations were only developed based on applicable acute aquatic criteria or screening values, human health criteria, mercury since it is a BCC and, for selenium, the water column intermittent element of the chronic aquatic criterion in 327 IAC 2-1-6(a)(4). For sulfate, the must not exceed criterion was used as a screening value in the absence of an acute aquatic criterion. For fluoride, a hardness-based acute aquatic criterion derived for discharges to the Great Lakes system was used as a screening value. The applicable CAC for the intermittent exposure element of the water column criterion element for a discharge to Lick Creek is calculated on a site-specific basis using the following equation:

$$WQC_{int} = [WQC_{30-day} - C_{bkgnd} * (1 - f_{int})] / f_{int}$$

Where,

WQC_{int} is the water column intermittent element.

WQC_{30-day} is the water column monthly element for lotic waters.

C_{bkgnd} is the average background selenium concentration.

f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur.

The facility collected samples in Lick Creek upstream of Outfall 007 on a weekly basis for the period May 6, 2025 through June 24, 2025. For these eight samples, six were <1 ug/l, one was

equal to 1 ug/l, but flagged as not quantifiable, and one was <5 ug/l. The data are included in the August 12, 2025 addendum. Based on these data, C_{bkgnd} was set equal to 1 ug/l. WQC_{30-day} is 3.1 ug/l and f_{int} is equal to 0.033 based on a discharge frequency of once per month. Using these inputs, the value of WQC_{int} for Outfall 007 is 64 ug/l. The duration for WQC_{int} is one day based on the number of days per month with an elevated concentration.

Since the Q7,10 and Q30,10 low-flow values for Lick Creek are zero and human health cancer criteria are not applicable or not available for the pollutants of concern, the determination of background concentrations for the pollutants of concern was not necessary. The 50th percentile downstream hardness is used to determine the criteria for those metals whose criteria are dependent on hardness. The acute chloride criteria at 327 IAC 2-1-6(a)(6) are dependent on the stream sulfate and hardness concentrations and the sulfate criterion at 327 IAC 2-1-6(a)(8) is dependent on the stream chloride and hardness concentrations. The 50th percentile downstream values of hardness, chloride and sulfate are used to calculate the criteria. Downstream water quality data is typically used to determine the water quality characteristics for calculating water quality criteria. The use of the downstream water quality data is intended to determine values of the water quality characteristics that are representative of design conditions.

The design condition for chloride and sulfate and for the hardness-dependent metals criteria for this intermittent discharge are based on the facility effluent flow and the Q1,10 low-flow of the receiving stream. Downstream water quality data for hardness, chloride and sulfate are not available for Lick Creek. A hardness value of 1,500 mg/l for Outfall 007 is included on the Form 2C submitted with the August 12, 2025 addendum. Based on the limited dataset, except for sulfate, the 50th percentile downstream hardness was determined from IDEM fixed station WR-46, White River at Petersburg. The last five years of available data are included in Attachment 3-1. For sulfate, the criterion equations included in 327 IAC 2-1-6(a)(8) are capped at a hardness of 500 mg/l. Therefore, a hardness value of 500 mg/l was used to calculate the screening value for sulfate since elevated sulfate and hardness typically occur together with this type of wastewater. The 50th percentile effluent chloride and sulfate concentrations included in Attachments 8-5 and 8-6, respectively, were used as the downstream concentrations. The 75th percentile downstream pH is used to determine the acute ammonia (as N) criteria. Data for pH are not available for Lick Creek. Therefore, summer/winter default pH values of 7.8/7.8 s.u. were used for the determination of the ammonia (as N) criteria.

The coefficient of variation used to calculate monthly average and daily maximum preliminary effluent limitations (PELs) was set equal to the default value of 0.6. The number of samples per month used to calculate monthly average PELs was set equal to one for all the pollutants of concern based on the expected monitoring frequency. The calculation of PELs is shown in Attachment 5. For selenium, in the calculation of PELs, the wasteload allocation duration was set equal to one instead of thirty which is used for the water column monthly average element (see 327 IAC 2-1-6(a)(4)(A), Table 6-1a).

Reasonable Potential Analysis for Outfall 009

Calculation of Projected Effluent Quality

The data for the pollutants of concern for the period June 2021 through December 2024 are included in Attachments 6-1 through 6-6. The data were submitted by the facility and are considered a conservative estimate of future discharge concentrations following unit conversion from coal to gas. For free cyanide, both effluent values reported for June 2023 on the monthly monitoring report (MMR) were identified as data entry errors after review of the laboratory reports and the correct values were included in Attachment 6-5. Except for free cyanide, the effluent data did not include values reported as less than (<) the limit of detection (LOD). For free cyanide, these values were set equal to the LOD. Monthly averages were calculated for those months for which at least two data points were available. For all of the pollutants of concern, except mercury, monthly averages could be calculated so that a monthly projected effluent quality (PEQ) and a daily PEQ were determined to conduct a reasonable potential to exceed (RPE) analysis using the procedures under 327 IAC 5-2-11.5 for discharges into the Great Lakes system. For mercury, the reasonable potential analysis was conducted using only a daily PEQ.

Comparison of PEQs to PELs

The reasonable potential analysis for the pollutants of concern is included in Attachment 7. The results of the analysis show that a PEQ does not exceed a PEL for any of the pollutants considered in the analysis except mercury. Therefore, based on the reasonable potential statistical procedure, there is only a reasonable potential to exceed a water quality criterion for mercury.

Reasonable Potential Analysis for Outfall 010

Calculation of Projected Effluent Quality

The data for the pollutants of concern were submitted by the facility for the period June 2021 through December 2024 and are included in Attachments 8-1 through 8-6. For selenium in Attachment 8-4, a statistical outlier of 0.083 mg/l reported for December 10, 2024 was removed from the dataset. Based on the Noncompliance 24-Hour Notification Report dated December 26, 2024, the exceedance of the existing daily maximum permit limit was due to pumps taken out of service during freezing temperatures resulting in overflow of an internal holding pond. The facility reported that they would make changes to maintain pump operations during freezing conditions. Otherwise, the data are considered a conservative estimate of future discharge concentrations following landfill closure and unit conversion from coal to gas. Except for free cyanide, the effluent data did not include values reported as less than (<) the limit of detection (LOD). For free cyanide, these values were set equal to the LOD. Monthly averages were calculated for those months for which at least two data points were available. For all of the pollutants of concern, except mercury, monthly averages could be calculated so that a monthly projected effluent quality (PEQ) and a daily PEQ were determined to conduct a reasonable potential to exceed (RPE) analysis using the procedures under 327 IAC 5-2-11.5 for discharges into the Great Lakes system. For mercury, the facility received monthly average and daily maximum permit limits, but was only required to monitor six times yearly. Therefore, they conducted additional mercury sampling in some months to comply with the monthly average

permit limit. In this case, monthly averages were considered for months when only one sample was collected.

Comparison of PEQs to PELs

The reasonable potential analysis for the pollutants of concern is included in Attachment 9. The results of the analysis show that a PEQ does not exceed a PEL for any of the pollutants considered in the analysis. Therefore, based on the reasonable potential statistical procedure, there is not a reasonable potential to exceed a water quality criterion for any of the pollutants considered in the analysis.

Reasonable Potential Analysis for Outfall 007

Calculation of Projected Effluent Quality

The data for the pollutants of concern included in Attachments 8-1 through 8-6 for Outfall 010 were also utilized for Outfall 007. The data are considered a conservative estimate of future discharge concentrations following landfill closure and unit conversion from coal to gas. This is further expected considering that discharge through Outfall 007 will only occur during wet weather conditions that generate stormwater flow in excess of the pumping capacity to Outfall 010 to White River. Therefore, for each of the pollutants of concern, the monthly projected effluent quality (PEQ) and daily PEQ determined for Outfall 010 were used to conduct a reasonable potential to exceed (RPE) analysis using the procedures under 327 IAC 5-2-11.5 for discharges into the Great Lakes system.

Comparison of PEQs to PELs

The reasonable potential analysis for the pollutants of concern is included in Attachment 10. The results of the analysis show that a PEQ does not exceed a PEL for any of the pollutants considered in the analysis. Therefore, based on the reasonable potential statistical procedure, there is not a reasonable potential to exceed a water quality criterion for any of the pollutants considered in the analysis.

Calculation of Water Quality-based Effluent Limitations for Outfall 009

The concentration-based PELs for total chromium, copper, iron and zinc in Attachment 4 for the combined Outfall 009 and 010 flow are based on applicable water quality criteria and may be compared to applicable federal effluent limitation guidelines (ELGs) to determine if the WQBELs are required in the permit. To do this comparison for Outfall 009 based on mass limitations, the concentration-based WQBELs would need to be converted to mass-based limitations using the effluent flow of 7.0 mgd. Since the PELs for these pollutants are based on a wasteload allocation set equal to the final acute value (FAV) without consideration for dilution, the calculation of PELs based on an effluent flow of 7.0 mgd is provided in Attachment 11 and these PELs may be compared to applicable ELGs to determine if the WQBELs are required in the permit.

To interpret the narrative prohibition of discharging substances in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life under 2-1-6(a)(1)(E) in regards to whole effluent toxicity (WET), IDEM uses a numeric interpretation of this narrative equal to 0.3 acute toxic units (TUa) for the AAC. To interpret the narrative prohibition of discharging substances in concentrations that, on the basis of available scientific data, are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants under 2-1-6(a)(2), IDEM uses a numeric interpretation of this narrative equal to 1.0 chronic toxic units (TUc) for the CAC. U.S. EPA has not established national recommended Clean Water Act Section 304(a) water quality criteria for either acute or chronic WET, so these numeric interpretations are based on EPA recommended values included in the guidance “Technical Support Document for Water Quality-based Toxics Control,” EPA/505/2-90-001, March 1991. In Section 2.3.3 of this guidance, EPA provides a recommended criterion maximum concentration (CMC) (equivalent to AAC in 2-1-6) of 0.3 TUa for acute protection and a recommended criterion continuous concentration (CCC) (equivalent to CAC in 2-1-6) of 1.0 TUc for chronic protection.

To implement these numeric interpretations for WET under 327 IAC 5-2-11.1(b)(1) and (b)(2), IDEM applies 1.0 TUa for acute WET to the undiluted discharge and 1.0 TUc for chronic WET outside a mixing zone established using twenty-five percent (25%) of the Q7,10 low-flow of the receiving stream. Under 5-2-11.4(a)(8)(C)(iv) for discharges into the Great Lakes system, the representative background concentration for WET shall be assumed to be zero (0) unless data are available that indicates that the discharge of the WET and any background WET are additive. No such data are available in this case, so consistent with the procedure for Great Lakes system dischargers, the background concentration of WET was also assumed to be zero. The PELs for acute and chronic WET in Attachment 11 are based on the numeric interpretation of the narrative criteria for acute and chronic toxicity and may be included in an NPDES permit as the toxicity reduction evaluation (TRE) triggers for acute and chronic WET.

List of Attachments

Attachment 1: Map of Outfall Locations
Attachments 2-1 through 2-4: Calculation of Background Concentrations
Attachments 3-1 and 3-2: Calculation of Downstream Water Quality Characteristics
Attachment 4: Calculation of Preliminary Effluent Limitations for Outfalls 009 and 010
Attachment 5: Calculation of Preliminary Effluent Limitations for Outfall 007
Attachments 6-1 through 6-6: Effluent Data for Outfall 009
Attachment 7: Reasonable Potential to Exceed Analysis for Outfall 009
Attachments 8-1 through 8-6: Effluent Data for Outfall 010
Attachment 9: Reasonable Potential to Exceed Analysis for Outfall 010
Attachment 10: Reasonable Potential to Exceed Analysis for Outfall 007
Attachment 11: Calculation of Preliminary Effluent Limitations for Outfall 009

ATTACHMENT 1
AESI Petersburg Generating Station (IN0002887)



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Mapped By: John Elliott, Office of Water Quality
Date: 11/26/2025

Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N Map Datum: NAD83



0 0.1 0.2 0.4 Miles



ATTACHMENT 2-1
Calculation of Background Concentrations
Data From Fixed Station WR-46, White River at SR 61, Petersburg

	Summer	Adjusted		Winter	Adjusted
	Ammonia-N	Summer		Ammonia-N	Winter
Date	(mg/l)	(mg/l)	Date	(mg/l)	(mg/l)
6/8/2020	<.1	0.05	12/2/2020	<.1	0.05
7/6/2020	<.1	0.05	1/26/2021	<.1	0.05
9/28/2020	<.1	0.05	2/22/2021	<.1	0.05
10/13/2020	<.1	0.05	3/17/2021	<.1	0.05
11/10/2020	<.1	0.05	4/5/2021	<.1	0.05
5/3/2021	<.1	0.05	12/8/2021	<.1	0.05
6/7/2021	<.1	0.05	1/3/2022	<.1	0.05
7/12/2021	<.1	0.05	2/1/2022	<.1	0.05
8/2/2021	<.1	0.05	3/21/2022	<.1	0.05
9/1/2021	<.1	0.05	4/5/2022	<.1	0.05
10/11/2021	<.1	0.05	12/1/2022	<.1	0.05
11/3/2021	<.1	0.05	1/10/2023	<.1	0.05
5/18/2022	<.1	0.05	2/1/2023	<.1	0.05
6/15/2022	<.1	0.05	3/22/2023	<.1	0.05
7/13/2022	<.1	0.05	4/24/2023	<.1	0.05
8/3/2022	<.1	0.05	12/18/2023	<.1	0.05
9/7/2022	<.1	0.05	1/3/2024	<.1	0.05
10/5/2022	<.1	0.05	2/14/2024	<.1	0.05
11/2/2022	<.1	0.05	3/13/2024	<.1	0.05
5/24/2023	<.1	0.05	4/3/2024	0.35	0.35
6/21/2023	<.1	0.05	12/17/2024	0.17	0.17
7/31/2023	<.1	0.05	1/29/2025	<.1	0.05
8/23/2023	<.1	0.05	2/26/2025	<.1	0.05
9/13/2023	<.1	0.05	3/25/2025	<.1	0.05
10/4/2023	<.1	0.05	4/29/2025	<.1	0.05
11/28/2023	<.1	0.05			
5/8/2024	<.1	0.05	Geomean		0.057
6/26/2024	<.1	0.05			
7/10/2024	0.11	0.11			
8/28/2024	<.1	0.05			
9/9/2024	<.1	0.05			
10/9/2024	<.1	0.05			
11/5/2024	<.1	0.05			
Geomean		0.051			

ATTACHMENT 2-2
Calculation of Background Concentrations
Data From Fixed Station WR-46, White River at SR 61, Petersburg

Date	Total Arsenic (ug/l)	Adjusted Total Arsenic (ug/l)	Boron (ug/l)	Total Cadmium (ug/l)	Adjusted Total Cadmium (ug/l)	Chloride (mg/l)
9/28/2020	1.2	1.2	130	<.5	0.25	63
10/13/2020	1.1	1.1	110	<.5	0.25	67
11/10/2020	1.4	1.4	55.6	<.5	0.25	42
12/2/2020	1.6	1.6	25.4	<.5	0.25	25
1/26/2021	1.2	1.2	42.4	<.5	0.25	40
2/22/2021	0.89	0.89	43.9	<.5	0.25	49
3/17/2021	1.4	1.4	31.7	<.5	0.25	29
4/5/2021	1.2	1.2	33.1	<.5	0.25	30
5/3/2021	1.8	1.8	33.6	<.5	0.25	27
6/7/2021	1.8	1.8	41.3	<.5	0.25	32
7/12/2021	2.7	2.7	44.1	<.5	0.25	32
8/2/2021	1.4	1.4	50	<.5	0.25	30
9/1/2021	2.2	2.2	78.5	<.5	0.25	44
10/11/2021	1.6	1.6	76.2	<.5	0.25	54
11/3/2021	1.9	1.9	32.9	<.5	0.25	23
12/8/2021	1.5	1.5	40.9	<.5	0.25	27
1/3/2022	1.8	1.8	27.2	<.5	0.25	18
2/1/2022	0.8	0.8	46.9	<.5	0.25	37
3/21/2022	1.3	1.3	33.4	<.5	0.25	28
4/5/2022	0.99	0.99	33	<.5	0.25	29
5/18/2022	1.5	1.5	35.2	<.5	0.25	27
6/15/2022	1.6	1.6	47	<.5	0.25	36
7/13/2022	1.4	1.4	50.6	<.5	0.25	29
8/3/2022	1.8	1.8	60	<.5	0.25	29
9/7/2022	1.9	1.9	55.3	<.5	0.25	35
10/5/2022	1.1	1.1	105	<.5	0.25	60
11/2/2022	1.3	1.3	122	<.5	0.25	76
12/1/2022	0.81	0.81	157	<.5	0.25	77
1/10/2023	1.3	1.3	37.7	<.5	0.25	53
2/1/2023	1.3	1.3	32	<.5	0.25	52
3/22/2023	0.81	0.81	34.2	<.5	0.25	37
4/24/2023	1	1	35.8	<.5	0.25	33
5/24/2023	1.1	1.1	56.5	<.5	0.25	40
6/21/2023	1.4	1.4	75.7	<.5	0.25	56
7/31/2023	1.5	1.5	68.3	<.5	0.25	40
8/23/2023	1.6	1.6	71.3	<.5	0.25	42
9/13/2023	1.4	1.4	100	<.5	0.25	63
10/4/2023	1.7	1.7	123	<.5	0.25	87
11/28/2023	0.74	0.74	142	<.5	0.25	87
12/18/2023	<.6	0.3	107	<.5	0.25	80
1/3/2024	<.6	0.3	106	<.5	0.25	83
2/14/2024	1	1	45.8	<.5	0.25	45
3/13/2024	1.6	1.6	34.7	<.5	0.25	37
4/3/2024	4.1	4.1	<20	<.5	0.25	29
5/8/2024	1.4	1.4	41.4	<.5	0.25	30
6/26/2024	1.4	1.4	62.4	<.5	0.25	51
7/10/2024	2.2	2.2	52.2	<.5	0.25	36
8/28/2024	1.8	1.8	62	<.5	0.25	49
9/9/2024	1.4	1.4	83.6	<.5	0.25	75
10/9/2024	1.2	1.2	59.8	<.5	0.25	58
11/5/2024	1	1	102	<.5	0.25	79
12/17/2024	4.2	4.2	34.4	<.5	0.25	26
1/29/2025	<1.2	0.6	36.6	<1	0.5	66
2/26/2025	1.2	1.2	--	<.5	0.25	39
3/25/2025	1.5	1.5	24.8	<.5	0.25	28
4/29/2025	1.5	1.5	32.7	<.5	0.25	30
6/24/2025	1.8	1.8	36	<.5	0.25	28
7/30/2025	1.9	1.9	39.6	<.5	0.25	22
8/6/2025	1.6	1.6	39.4	<.5	0.25	24
Geomean		1.3	53		0.25	41

ATTACHMENT 2-3
Calculation of Background Concentrations
Data From Fixed Station WR-46, White River at SR 61, Petersburg

Date	Adjusted		Total Copper (ug/l)	Fluoride (mg/l)	Iron (ug/l)	Adjusted	
	Total Chromium (ug/l)	Total Chromium (ug/l)				Total Lead (ug/l)	Total Lead (ug/l)
9/28/2020	<.6	0.3	2.1	--	725	0.67	0.67
10/13/2020	<.6	0.3	2.6	--	631	0.57	0.57
11/10/2020	<.6	0.3	2.6	--	745	0.79	0.79
12/2/2020	1.4	1.4	3.5	--	2520	1.8	1.8
1/26/2021	1.2	1.2	3	--	2480	1.5	1.5
2/22/2021	<.6	0.3	2	--	525	0.52	0.52
3/17/2021	1.6	1.6	3.1	--	2650	1.8	1.8
4/5/2021	1.3	1.3	2.6	--	1840	1.4	1.4
5/3/2021	2.6	2.6	4.5	--	3810	2.9	2.9
6/7/2021	2.5	2.5	4.3	--	3640	2.8	2.8
7/12/2021	4.4	4.4	6.6	--	5240	4.6	4.6
8/2/2021	<.6	0.3	2.2	--	1190	0.92	0.92
9/1/2021	1.6	1.6	3.3	--	2250	1.9	1.9
10/11/2021	<.6	0.3	2.6	--	752	0.61	0.61
11/3/2021	2.1	2.1	4.2	--	2460	2.2	2.2
12/8/2021	1.4	1.4	3.4	--	2350	2.2	2.2
1/3/2022	2.4	2.4	4.3	--	3160	2.7	2.7
2/1/2022	<.6	0.3	1.2	--	317	<.5	0.25
3/21/2022	1.5	1.5	2.6	--	2260	1.6	1.6
4/5/2022	0.85	0.85	2	--	1390	0.96	0.96
5/18/2022	1.4	1.4	2.9	--	1950	1.7	1.7
6/15/2022	1.4	1.4	2.8	--	2160	1.6	1.6
7/13/2022	1	1	2.5	--	1280	1	1
8/3/2022	0.64	0.64	2.4	--	1220	0.98	0.98
9/7/2022	1.1	1.1	2.6	--	1850	1.6	1.6
10/5/2022	<.6	0.3	1.5	--	501	0.65	0.65
11/2/2022	<.6	0.3	1.9	--	696	0.6	0.6
12/1/2022	<1.1	0.55	2.4	--	395	<.5	0.25
1/10/2023	<1.1	0.55	2.9	--	1500	1.2	1.2
2/1/2023	1.3	1.3	3	--	1560	1.2	1.2
3/22/2023	<1.1	0.55	2	--	1300	0.93	0.93
4/24/2023	<1.1	0.55	2.1	--	1100	0.89	0.89
5/24/2023	<1.1	0.55	2.7	--	1260	1.1	1.1
6/21/2023	1	1	2.8	--	1190	1.1	1.1
7/31/2023	0.69	0.69	2.3	--	1040	0.87	0.87
8/23/2023	0.76	0.76	2.2	--	882	0.88	0.88
9/13/2023	0.66	0.66	2	--	835	0.75	0.75
10/4/2023	0.85	0.85	3	--	1200	1	1
11/28/2023	<.6	0.3	1.9	--	168	<.5	0.25
12/18/2023	<.6	0.3	2.1	--	256	<.5	0.25
1/3/2024	<.6	0.3	2.7	--	183	<.5	0.25
2/14/2024	0.8	0.8	2.4	--	944	0.96	0.96
3/13/2024	2.3	2.3	4.2	0.1	3040	2.6	2.6
4/3/2024	8.3	8.3	12.1	0.2	11800	8.1	8.1
5/8/2024	1.4	1.4	2.8	0.2	1760	1.2	1.2
6/26/2024	<.6	0.3	2.1	0.2	656	0.81	0.81
7/10/2024	2.7	2.7	4.3	0.2	3460	2.7	2.7
8/28/2024	0.7	0.7	2.4	0.17	921	0.9	0.9
9/9/2024	0.65	0.65	2.1	0.23	635	0.61	0.61
10/9/2024	<.6	0.3	2.4	0.2	702	0.65	0.65
11/5/2024	<.6	0.3	6.2	0.24	716	0.62	0.62
12/17/2024	8.3	8.3	11.6	0.14	9610	7	7
1/29/2025	<1.6	0.8	1.77	0.13	572	<1	0.5
2/26/2025	1.2	1.2	2.6	0.13	1580	1.3	1.3
3/25/2025	1.8	1.8	3.8	0.11	2180	1.7	1.7
4/29/2025	1.6	1.6	2.9	0.13	1820	1.7	1.7
6/24/2025	1.7	1.7	4.5	0.15	1990	2	2
7/30/2025	1	1	3.4	0.14	1330	1.3	1.3
8/6/2025	0.81	0.81	3.2	0.13	1010	1.3	1.3
Geomean		0.88	2.9	0.16	1289		1.1

ATTACHMENT 2-4
Calculation of Background Concentrations
Data From Fixed Station WR-46, White River at SR 61, Petersburg

Date	Manganese (ug/l)	Nickel (ug/l)	Total Selenium (ug/l)	Adjusted Total Selenium (ug/l)	Sulfate (mg/l)	Total Zinc (ug/l)	Adjusted Total Zinc (ug/l)
9/28/2020	135	2.5	<1.1	0.55	87	<6	3
10/13/2020	131	3	<1.1	0.55	106	<6	3
11/10/2020	92	2.5	<1.1	0.55	54	<6	3
12/2/2020	129	3.1	<1.1	0.55	30	9.2	9.2
1/26/2021	90.8	2.8	<1.1	0.55	56	9.9	9.9
2/22/2021	40	2.1	<1.1	0.55	59	<6	3
3/17/2021	112	3	<1.1	0.55	36	10.3	10.3
4/5/2021	107	2.6	<1.1	0.55	32	7.7	7.7
5/3/2021	175	4.6	<1.1	0.55	31	16	16
6/7/2021	180	4.2	<1.1	0.55	32	15.2	15.2
7/12/2021	298	6.8	<1.1	0.55	40	21.5	21.5
8/2/2021	124	2.5	<1.1	0.55	43	<6	3
9/1/2021	162	4	<1.1	0.55	67	8.8	8.8
10/11/2021	66.5	2.7	<1.1	0.55	58	<6	3
11/3/2021	121	3.3	<1.1	0.55	29	10.8	10.8
12/8/2021	154	3.2	<1.1	0.55	--	9.9	9.9
1/3/2022	133	3.8	<1.1	0.55	25	13.8	13.8
2/1/2022	39.3	1.7	<1.1	0.55	48	<6	3
3/21/2022	104	2.9	<1.1	0.55	35	9.7	9.7
4/5/2022	79	2.2	<1.1	0.55	39	<6	3
5/18/2022	136	3.1	<1.1	0.55	39	8.5	8.5
6/15/2022	135	3	<1.1	0.55	39	9.1	9.1
7/13/2022	123	2.8	<1.1	0.55	46	<6	3
8/3/2022	135	2.8	<1.1	0.55	52	<6	3
9/7/2022	156	3.2	<1.1	0.55	38	7.4	7.4
10/5/2022	172	2.3	<1.1	0.55	75	<6	3
11/2/2022	134	3.1	<1.1	0.55	95	<6	3
12/1/2022	98.6	2.5	1.3	1.3	97	<6	3
1/10/2023	97.1	2.7	<1	0.5	44	6.41	6.41
2/1/2023	100	2.7	<1	0.5	45	7.64	7.64
3/22/2023	80.4	2	<1	0.5	44	6.53	6.53
4/24/2023	94.7	2.2	<1	0.5	41	<6	3
5/24/2023	102	2.5	<1	0.5	45	6.81	6.81
6/21/2023	198	3.3	<1.1	0.55	56	<6	3
7/31/2023	152	2.5	<1.1	0.55	75	<6	3
8/23/2023	133	2.4	<1.1	0.55	50	<6	3
9/13/2023	159	2.6	<1.1	0.55	75	<6	3
10/4/2023	171	3.4	<1.1	0.55	82	<6	3
11/28/2023	54.7	2.2	<1.1	0.55	88	<6	3
12/18/2023	56.4	2.1	<1.1	0.55	92	<6	3
1/3/2024	44.8	2.3	<1.1	0.55	104	<6	3
2/14/2024	82.3	2.5	<1.1	0.55	59	6.27	6.27
3/13/2024	161	4.2	<1.1	0.55	45	13.9	13.9
4/3/2024	395	9.8	<1.1	0.55	70	48.9	48.9
5/8/2024	122	2.8	<1.1	0.55	42	7.1	7.1
6/26/2024	167	2.4	<1.1	0.55	52	<6	3
7/10/2024	188	4.4	<1.1	0.55	45	14.5	14.5
8/28/2024	194	2.7	<1.1	0.55	63	<6	3
9/9/2024	160	2.8	<1.1	0.55	93	<6	3
10/9/2024	125	2.6	<1.1	0.55	60	<6	3
11/5/2024	126	3.3	<1.1	0.55	95	<6	3
12/17/2024	342	9.6	<1.1	0.55	87	40.5	40.5
1/29/2025	38.4	4.21	<2.2	--	54	<6	3
2/26/2025	79.6	2.6	<1.1	0.55	45	7.4	7.4
3/25/2025	108	3.3	<1.1	0.55	43	9.8	9.8
4/29/2025	127	2.9	<1.1	0.55	35	9.09	9.09
6/24/2025	140	3.6	<1.1	0.55	32	11.7	11.7
7/30/2025	117	2.7	<1.1	0.55	49	<6	3
8/6/2025	84.3	2.4	<1.1	0.55	42	<6	3
Geomean	118	3.0		0.55	52		5.6

ATTACHMENT 3-1
Calculation of Water Quality Characteristics
Data From Fixed Station WR-46, White River at SR 61, Petersburg

Date	Chloride (mg/l)	Hardness (mg/l)	Sulfate (mg/l)
9/28/2020	63	298	87
10/13/2020	67	304	106
11/10/2020	42	222	54
12/2/2020	25	201	30
1/26/2021	40	238	56
2/22/2021	49	259	59
3/17/2021	29	184	36
4/5/2021	30	215	32
5/3/2021	27	158	31
6/7/2021	32	212	32
7/12/2021	32	198	40
8/2/2021	30	241	43
9/1/2021	44	223	67
10/11/2021	54	248	58
11/3/2021	23	222	29
12/8/2021	27	217	--
1/3/2022	18	181	25
2/1/2022	37	304	48
3/21/2022	28	225	35
4/5/2022	29	236	39
5/18/2022	27	235	39
6/15/2022	36	254	39
7/13/2022	29	197	46
8/3/2022	29	217	52
9/7/2022	35	220	38
10/5/2022	60	276	75
11/2/2022	76	310	95
12/1/2022	77	302	97
1/10/2023	53	219	44
2/1/2023	52	215	45
3/22/2023	37	252	44
4/24/2023	33	246	41
5/24/2023	40	254	45
6/21/2023	56	257	56
7/31/2023	40	210	75
8/23/2023	42	200	50
9/13/2023	63	276	75
10/4/2023	87	263	82
11/28/2023	87	301	88
12/18/2023	80	292	92
1/3/2024	83	309	104
2/14/2024	45	274	59
3/13/2024	37	189	45
4/3/2024	29	200	70
5/8/2024	30	220	42
6/26/2024	51	243	52
7/10/2024	36	233	45
8/28/2024	49	187	63
9/9/2024	75	228	93
10/9/2024	58	198	60
11/5/2024	79	317	95
12/17/2024	26	156	87
1/29/2025	66	--	54
2/26/2025	39	195	45
3/25/2025	28	174	43
4/29/2025	30	208	35
6/24/2025	28	210	32
7/30/2025	22	174	49
8/6/2025	24	143	42
50th %	37	223	49

ATTACHMENT 3-2
Calculation of Water Quality Characteristics
Data From Fixed Station WR-46, White River at SR 61, Petersburg

Date	Summer		Date	Winter	
	Summer pH	Temperature		Winter pH	Temperature
	(s.u.)	(°C)		(s.u.)	(°C)
6/8/2020	8.2	24.4	12/2/2020	7.64	6.5
7/6/2020	8.14	28.4	1/26/2021	8.03	4
8/5/2020	7.71	22.3	2/22/2021	8.15	1.5
9/28/2020	8.17	21.1	3/17/2021	7.98	9.6
10/13/2020	8.22	17	4/5/2021	7.98	12.5
11/10/2020	7.86	16.7	12/8/2021	7.7	5.9
5/3/2021	7.64	17.8	1/3/2022	7.7	7
6/7/2021	7.76	22	2/1/2022	7.71	3
7/12/2021	7.98	24.4	3/21/2022	7.73	10.7
8/2/2021	8	23.6	4/5/2022	7.74	11.7
9/1/2021	7.93	25.6	12/1/2022	7.92	6.5
10/11/2021	8.26	23.5	1/10/2023	7.45	8.1
11/3/2021	7.8	11.3	2/1/2023	7.51	2.9
5/18/2022	7.42	21.7	3/22/2023	8.11	8.2
6/15/2022	8.04	27.3	4/24/2023	8.37	12.8
7/13/2022	8.24	28	12/18/2023	8.26	5.4
8/3/2022	7.97	27.4	1/3/2024	8.28	5.2
9/7/2022	7.87	25.8	2/14/2024	8.21	8.7
10/5/2022	8.08	18.1	3/13/2024	7.84	11.8
11/2/2022	7.98	16.3	4/3/2024	7.6	14.9
5/24/2023	8.59	23.5	12/17/2024	7.7	9.7
6/21/2023	8.27	24.1	1/29/2025	8.09	1.2
7/31/2023	8.44	28.6	2/26/2025	8.01	5.4
8/23/2023	7.99	28.2	3/25/2025	7.53	10.1
9/13/2023	8.51	23.3	4/29/2025	8.16	19.7
10/4/2023	8.24	22.3			
11/28/2023	8.36	4.3	75th %	8.1	11
5/8/2024	8.37	22.6			
6/26/2024	8.19	27.1			
7/10/2024	8.15	26			
8/28/2024	8.22	28.6			
9/9/2024	8.28	21.7			
10/9/2024	8.44	19.7			
11/5/2024	8.08	17.9			
75th %	8.3	26			

ATTACHMENT 4

Calculation of Preliminary Effluent Limitations for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

General Information	
Facility Name:	AESI Petersburg Generating Station
County:	Pike
NPDES Number:	IN0002887
WLA Number:	002836
WLA Report Date:	December 2, 2025
Outfall:	Combined Outfall 009 and Outfall 010
Receiving Water:	White River

Receiving Water Questions (Yes or No)	
Acute Mixing Zone Allowed?	No
Public Water System (PWS) Intake Downstream?	No
Industrial Water Supply (IWS) Intake Downstream?	No
Interstate Wabash River Discharge?	No
Put-and-Take Trout Fishing?	No
Fish Early Life Stages Present?	Yes

Effluent Flow	=	7.43 mgd
---------------	---	----------

Receiving Stream Design Flows	
Q1,10 (Outfall)	= 791 cfs
Q7,10 (Outfall)	= 837 cfs
Q7,10 (Public Water System Intake)	= cfs
Q7,10 (Industrial Water Supply Intake)	= cfs
Q30,10 (Outfall)	= 925 cfs
Q50 (Outfall)	= 7020 cfs
Q50 (Public Water System Intake)	= cfs

Ambient Downstream Water Quality Characteristics	
Hardness (50th percentile)	= 223 mg/l
Chloride (50th percentile)	= 37 mg/l
Sulfate (50th percentile)	= 49 mg/l
pH (50th percentile)	= s.u.
Acute Ammonia-N	
Summer pH (75th percentile)	= 7.8 s.u.
Winter pH (75th percentile)	= 7.8 s.u.
Chronic Ammonia-N	
Summer Temperature (75th percentile)	= 26 C
Summer pH (75th percentile)	= 8.3 s.u.
Winter Temperature (75th percentile)	= 11 C
Winter pH (75th percentile)	= 8.1 s.u.

Mixing Zone Dilution			
Dilution Factor (for acute mixing zone)	=		
	Dilution Fraction	Flow	Location
Chronic Aquatic Life (Except Ammonia and Selenium)	= 50%	Q7,10	Outfall
Chronic Aquatic Life (Ammonia and Selenium)	= 50%	Q30,10	Outfall
Chronic WET	= 25%	Q7,10	Outfall
Human Noncancer Drinking Water	= 100%	Q7,10	PWS Intake
Human Noncancer Nondrinking Water	= 50%	Q7,10	Outfall
Human Cancer Drinking Water	= 100%	Q50	PWS Intake
Human Cancer Nondrinking Water	= 25%	Q50	Outfall
Public Water Supply	= 100%	Q7,10	PWS Intake
Industrial Water Supply	= 100%	Q7,10	IWS Intake

Metals Translators (dissolved to total recoverable)		
	Acute	Chronic
Arsenic	1.000	1.000
Cadmium	0.910	0.875
Chromium III	0.316	0.860
Copper	0.960	0.960
Lead	0.674	0.674
Nickel	0.998	0.997
Selenium	--	1.000
Silver	0.85	--
Zinc	0.978	0.986

														Indiana Water Quality Criteria for the Non-Great Lakes System (ug/l) [2]							Preliminary Effluent Limitations [3]							
							A	B	C	D	E	F		G														
Source of Criteria [1]							Bckgrnd (Outfall) (ug/l)	Bckgrnd (Intake) (ug/l)	Remove Mixing Zone? (Yes or Blank)	Samples/ Month	CV	Facility Specific CV? (Yes or No)		CAS Number	Parameters	Aquatic Life Criteria		Human Health Noncancer Criteria		Human Health Cancer Criteria		Add. PWS Criteria						
A	B	C	D	E	F	G										Acute (AAC)	Chronic (CAC)	Drinking (HNC-D)	Nondrinking (HNC-N)	Drinking (HCC-D)	Nondrinking (HCC-N)		(PWS)	Concentration (ug/l)		Mass (lbs/day)		Criteria
																			Average	Maximum	Average	Maximum	Type [4]	Basis				
1	1	8				8	1.3			2	0.6	No	7440382	Arsenic[5][6]	340	150	5					10	390	680	24	42	Tier I	AAC
1	1	8	8			8	0.25			2	0.6	No	7440439	Cadmium[5][6][7]	3.79	1.31	14	1400				5	4.8	8.3	0.3	0.51	Tier I	AAC
1	1	8	8			8	0.88			2	0.6	No	16065831	Chromium (III)[5][7]	1099	143	140	14000				100	4014.43	6955.03	248.91	431.24	Tier I	AAC
1	1	8	8				0			2	0.6	No	18540299	Chromium (VI)[5]	15.71	10.58	230	25000					18.14	31.42	1.12	1.95	Tier I	AAC
												No	7440473	Total Chromium									4000	7000	250	430	Tier I	AAC
1	1	1	8				2.9			2	0.6	No	7440508	Copper[5][7]	36.23	22.52	1300	56000					44	75	2.7	4.7	Tier I	AAC
7	7						1289			2	0.6	No	7439896	Iron	2744	2495							3200	5500	200	340	SSC	AAC
1	1	8	8				1.1			2	0.6	No	7439921	Lead[5][6][7]	152.78	5.95	14	190					260	450	16	28	Tier I	AAC
5	6	8	8				118			2	0.6	No	7439965	Manganese[7]	8580	3977	1300	59000					9900	17000	610	1100	Tier I	AAC
1	1	1	1			8		Yes		1	0.6	No	7439976	Mercury[8]	2.4	0.012	0.14	0.15			2	0.012	0.02	0.00074	0.0012	Tier I	CAC[10]	
1	1	1	1				3			2	0.6	No	7440020	Nickel[5][7]	922.85	102.50	610	4600					1100	1800	68	110	Tier I	AAC
	1	1	1			8	0.55			2	0.6	No	7782492	Selenium (Iotic)[5]		3.1	170	4200			50	110	260	6.8	16	Tier I	CAC[10]	
1	1	1	1				5.6			2	0.6	No	7440666	Zinc[5][7]	231.19	233.08	7400	26000					270	470	17	29	Tier I	AAC
													7664417	Total Ammonia (as N)[7]														
4	4						51			2	0.6	No		Summer	12138.81	726.94							14000	24300	870	1500	Tier I	AAC
4	4						57			2	0.6	No		Winter	12138.81	2097.16							14000	24300	870	1500	Tier I	AAC
5	6	8	8				53			2	0.6	No	7440428	Boron	41000	7700	4000	330000					47000	82000	2900	5100	Tier I	AAC
1	1					1	41000			2	0.6	No	1688706	Chloride[7][11]	655257	404971						250000	760000	1300000	47000	81000	Tier I	AAC
1	1					8	0			2	0.6	No	57125	Cyanide, Free	22	5.2						200	25	44	1.6	2.7	Tier I	AAC
8	2					8	160			2	0.6	No	16984488	Fluoride[7]	15498.824	2000					4000	18000	31000	1100	1900	SV[9]	AAC	
	2					1	52000			2	0.6	No	14808798	Sulfate[7][11]		1593199					250000	55000000	95000000	3400000	5900000	Tier I	MNE	

[1] Source of Criteria

- 1) Indiana numeric water quality criterion in 327 IAC 2-1-6(a)(3), Table 6-1, 2-1-6(a)(4), Table 6-1a, 2-1-6(a)(6), 2-1-6(a)(7), Table 6-4 or in 2-1-6(e).
 - 2) "Must not exceed" (MNE) criterion in 327 IAC 2-1-6(a)(8), or 2-1-6(a)(9). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
 - 3) Industrial water supply (IWS) criterion in 327 IAC 2-1-6(f). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
 - 4) Acute (1-hour average) and chronic (30-day average) criteria for total ammonia nitrogen in "1999 Update of Ambient Water Quality Criteria for Ammonia," EPA-822-R-99-014, December 1999.
 - 5) Tier I criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is available, or using the methodology in 327 IAC 2-1-8.4, 327 IAC 2-1-8.5 or 327 IAC 2-1-8.6.
 - 6) Tier II criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is not available.
 - 7) Site-specific water quality criterion (SSC) in 327 IAC 2-1-8.9, Table 8.9-1 or developed under 327 IAC 2-1-8.9.
 - 8) Screening value (SV).
 - 9) Numeric interpretation of narrative criterion for toxicity using U.S. EPA recommended water quality criteria for whole effluent toxicity (WET).
 - 10) U.S. EPA national recommended water quality criterion under Section 304(a) of the Clean Water Act (CWA).
- [2] Except as noted, aquatic life criteria and screening values for all metals are in the form of total recoverable metal.
Human health criteria and screening values and public water supply screening values for all metals are in the form of total recoverable metal.
- [3] The preliminary effluent limitations (PELs) for metals are in the form of total recoverable metal (with the exception of Chromium (VI) which is in the form of dissolved metal).
- [4] See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the type and source of criteria.
- [5] Aquatic life criteria and screening values for the above-noted metals are in the form of dissolved metal.
- [6] The above-noted substances are probable or known human carcinogens.
- [7] The above-noted substances have a criterion that is a function of an ambient downstream water quality characteristic. See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the criterion equation.
- [8] The above-noted substances are bioaccumulative chemicals of concern (BCCs). Beginning January 1, 2004, the water quality criteria for a BCC shall be applied directly to the undiluted discharge for all discharges of a BCC.
To apply the water quality criteria for a BCC directly to the undiluted discharge, enter "Yes" in the "Remove Mixing Zone?" column.
- [9] Limits based on screening values (as indicated by SV) ARE NOT to be used as water quality-based effluent limitations. These are solely to be used as preliminary effluent limitations.
- [10] The monthly average PEL was set equal to the most stringent WLA because the calculated monthly average PEL exceeded the most stringent WLA and a facility-specific CV was not determined.
- [11] The ambient downstream water quality characteristic must be entered for both chloride and sulfate and it cannot exceed the applicable chronic aquatic life or "must not exceed" criterion for the substance.
Preliminary effluent limitations (PELs) for chloride and sulfate shall not be used to establish water quality-based effluent limitations that do not ensure the water quality criteria for both substances are achieved in the receiving water.

Last revised: May 16, 2022

ATTACHMENT 5

Calculation of Preliminary Effluent Limitations for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

General Information	
Facility Name:	AESI Petersburg Generating Station
County:	Pike
NPDES Number:	IN0002887
WLA Number:	002836
WLA Report Date:	December 2, 2025
Outfall:	007
Receiving Water:	Lick Creek

Receiving Water Questions (Yes or No)	
Acute Mixing Zone Allowed?	No
Public Water System (PWS) Intake Downstream?	No
Industrial Water Supply (IWS) Intake Downstream?	No
Interstate Wabash River Discharge?	No
Put-and-Take Trout Fishing?	No
Fish Early Life Stages Present?	Yes

Effluent Flow	=	0.10 mgd
---------------	---	----------

Receiving Stream Design Flows	
Q1,10 (Outfall)	= 0 cfs
Q7,10 (Outfall)	= 0 cfs
Q7,10 (Public Water System Intake)	= cfs
Q7,10 (Industrial Water Supply Intake)	= cfs
Q30,10 (Outfall)	= 0 cfs
Q50 (Outfall)	= 0.7 cfs
Q50 (Public Water System Intake)	= cfs

Ambient Downstream Water Quality Characteristics	
Hardness (50th percentile)	= 223 mg/l
Chloride (50th percentile)	= 79 mg/l
Sulfate (50th percentile)	= 1190 mg/l
pH (50th percentile)	= s.u.
Acute Ammonia-N	
Summer pH (75th percentile)	= 7.8 s.u.
Winter pH (75th percentile)	= 7.8 s.u.
Chronic Ammonia-N	
Summer Temperature (75th percentile)	= C
Summer pH (75th percentile)	= s.u.
Winter Temperature (75th percentile)	= C
Winter pH (75th percentile)	= s.u.

Mixing Zone Dilution			
Dilution Factor (for acute mixing zone)	=		
	Dilution Fraction	Flow	Location
Chronic Aquatic Life (Except Ammonia and Selenium)	= 50%	Q7,10	Outfall
Chronic Aquatic Life (Ammonia and Selenium)	= 50%	Q30,10	Outfall
Chronic WET	= 25%	Q7,10	Outfall
Human Noncancer Drinking Water	= 100%	Q7,10	PWS Intake
Human Noncancer Nondrinking Water	= 50%	Q7,10	Outfall
Human Cancer Drinking Water	= 100%	Q50	PWS Intake
Human Cancer Nondrinking Water	= 25%	Q50	Outfall
Public Water Supply	= 100%	Q7,10	PWS Intake
Industrial Water Supply	= 100%	Q7,10	IWS Intake

Metals Translators (dissolved to total recoverable)		
	Acute	Chronic
Arsenic	1.000	1.000
Cadmium	0.910	0.875
Chromium III	0.316	0.860
Copper	0.960	0.960
Lead	0.674	0.674
Nickel	0.998	0.997
Selenium	--	1.000
Silver	0.85	--
Zinc	0.978	0.986

															Indiana Water Quality Criteria for the Non-Great Lakes System (ug/l) [2]							Preliminary Effluent Limitations [3]						
															A	B	C	D	E	F	G							
															Aquatic Life Criteria		Human Health Noncancer Criteria		Human Health Cancer Criteria		Add. PWS Criteria							
Source of Criteria [1]						Bckgrnd (Outfall) (ug/l)	Bckgrnd (Intake) (ug/l)	Remove Mixing Zone? (Yes or Blank)	Samples/ Month	CV	Facility Specific CV? (Yes or No)	CAS Number	Parameters		Acute (AAC)	Chronic (CAC)	Drinking (HNC-D)	Nondrinking (HNC-N)	Drinking (HCC-D)	Nondrinking (HCC-N)	(PWS)	Concentration (ug/l)		Mass (lbs/day)		Criteria	Basis	
A	B	C	D	E	F	G																Average	Maximum	Average	Maximum	Type [4]		
1		8				8				1	0.6	No	7440382	Arsenic[5][6]	340		5				10	470	680	0.39	0.57	Tier I	AAC	
1		8	8			8				1	0.6	No	7440439	Cadmium[5][6][7]	3.79		14	1400			5	5.7	8.3	0.0048	0.0069	Tier I	AAC	
1		8	8			8				1	0.6	No	16065831	Chromium (III)[5][7]	1099		140	14000			100	4767.60	6955.03	3.98	5.80	Tier I	AAC	
1		8	8							1	0.6	No	18540299	Chromium (VI)[5]	15.71		230	25000				21.54	31.42	0.018	0.026	Tier I	AAC	
												No	7440473	Total Chromium								4800	7000	4	5.8	Tier I	AAC	
1		1	8							1	0.6	No	7440508	Copper[5][7]	36.23		1300	56000				52	75	0.043	0.063	Tier I	AAC	
7										1	0.6	No	7439896	Iron	2744							3800	5500	3.2	4.6	SSC	AAC	
1		8	8							1	0.6	No	7439921	Lead[5][6][7]	152.78		14	190				190	450	0.16	0.38	SV[9]	HNC-N[10]	
5		8	8							1	0.6	No	7439965	Manganese[7]	8580		1300	59000				12000	17000	10	14	Tier I	AAC	
1	1	1	1			8			Yes	1	0.6	No	7439976	Mercury[8]	2.4	0.012	0.14	0.15			2	0.012	0.02	0.00001	0.000017	Tier I	CAC[10]	
1		1	1							1	0.6	No	7440020	Nickel[5][7]	922.85		610	4600				1300	1800	1.1	1.5	Tier I	AAC	
	1	1	1			8				1	0.6	No	7782492	Selenium (intermittent lotic)[5]		64	170	4200			50	44	64	0.037	0.053	Tier I	CAC	
1		1	1							1	0.6	No	7440666	Zinc[5][7]	231.19		7400	26000				320	470	0.27	0.39	Tier I	AAC	
													7664417	Total Ammonia (as N)[7]														
4										1	0.6	No		Summer	12138.81							16600	24300	14	20	Tier I	AAC	
4										1	0.6	No		Winter	12138.81							16600	24300	14	20	Tier I	AAC	
5		8	8							1	0.6	No	7440428	Boron	41000		4000	330000				56000	82000	47	68	Tier I	AAC	
1						1				1	0.6	No	1688706	Chloride[7][11]	516625						250000	710000	1000000	590	830	Tier I	AAC	
1						8				1	0.6	No	57125	Cyanide, Free	22						200	30	44	0.025	0.037	Tier I	AAC	
8						8				1	0.6	No	16984488	Fluoride[7]	15498.824						4000	21000	31000	18	26	SV[9]	AAC	
8						1				1	0.6	No	14808798	Sulfate[7][11]	2545138.1						250000	3500000	5100000	2900	4300	SV[9]	AAC	

[1] Source of Criteria

- 1) Indiana numeric water quality criterion in 327 IAC 2-1-6(a)(3), Table 6-1, 2-1-6(a)(4), Table 6-1a, 2-1-6(a)(6), 2-1-6(a)(7), Table 6-4 or in 2-1-6(e).
 - 2) "Must not exceed" (MNE) criterion in 327 IAC 2-1-6(a)(8), or 2-1-6(a)(9). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
 - 3) Industrial water supply (IWS) criterion in 327 IAC 2-1-6(f). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
 - 4) Acute (1-hour average) and chronic (30-day average) criteria for total ammonia nitrogen in "1999 Update of Ambient Water Quality Criteria for Ammonia," EPA-822-R-99-014, December 1999.
 - 5) Tier I criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is available, or using the methodology in 327 IAC 2-1-8.4, 327 IAC 2-1-8.5 or 327 IAC 2-1-8.6.
 - 6) Tier II criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is not available.
 - 7) Site-specific water quality criterion (SSC) in 327 IAC 2-1-8.9, Table 8.9-1 or developed under 327 IAC 2-1-8.9.
 - 8) Screening value (SV).
 - 9) Numeric interpretation of narrative criterion for toxicity using U.S. EPA recommended water quality criteria for whole effluent toxicity (WET).
 - 10) U.S. EPA national recommended water quality criterion under Section 304(a) of the Clean Water Act (CWA).
- [2] Except as noted, aquatic life criteria and screening values for all metals are in the form of total recoverable metal.
Human health criteria and screening values and public water supply screening values for all metals are in the form of total recoverable metal.
- [3] The preliminary effluent limitations (PELs) for metals are in the form of total recoverable metal (with the exception of Chromium (VI) which is in the form of dissolved metal).
- [4] See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the type and source of criteria.
- [5] Aquatic life criteria and screening values for the above-noted metals are in the form of dissolved metal.
- [6] The above-noted substances are probable or known human carcinogens.
- [7] The above-noted substances have a criterion that is a function of an ambient downstream water quality characteristic. See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the criterion equation.
- [8] The above-noted substances are bioaccumulative chemicals of concern (BCCs). Beginning January 1, 2004, the water quality criteria for a BCC shall be applied directly to the undiluted discharge for all discharges of a BCC.
To apply the water quality criteria for a BCC directly to the undiluted discharge, enter "Yes" in the "Remove Mixing Zone?" column.
- [9] Limits based on screening values (as indicated by SV) ARE NOT to be used as water quality-based effluent limitations. These are solely to be used as preliminary effluent limitations.
- [10] The monthly average PEL was set equal to the most stringent WLA because the calculated monthly average PEL exceeded the most stringent WLA and a facility-specific CV was not determined.
- [11] The ambient downstream water quality characteristic must be entered for both chloride and sulfate and it cannot exceed the applicable chronic aquatic life or "must not exceed" criterion for the substance.
Preliminary effluent limitations (PELs) for chloride and sulfate shall not be used to establish water quality-based effluent limitations that do not ensure the water quality criteria for both substances are achieved in the receiving water.

Last revised: May 16, 2022

ATTACHMENT 6-1
Effluent Data for AESI Petersburg (IN0002887) Outfall
001 (Outfall 009)

Date	Summer Ammonia-N (mg/l)		Winter Ammonia-N (mg/l)		Arsenic (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/10/21	0.35				0.0022	
06/17/21	0.20	0.28			0.0018	0.0020
07/08/21	0.29				0.0022	
07/15/21	0.15	0.22			0.0016	0.012
08/05/21	0.14				0.0014	
08/17/21	0.15	0.15			0.0017	0.0016
09/09/21	0.37				0.0016	
09/16/21	0.42	0.40			0.0018	0.0017
10/07/21	0.60				0.0013	
10/14/21	0.26	0.43			0.0019	0.0016
11/09/21	0.22				0.0014	
11/16/21	0.54	0.38			0.0015	0.0015
12/07/21			0.27		0.0010	
12/14/21			0.20	0.24	0.0010	0.0010
01/04/22			0.28		0.0021	
01/11/22			0.89	0.59	0.0015	0.0018
02/01/22			0.15		0.0016	
02/08/22			0.12	0.14	0.0014	0.0015
03/01/22			0.38		0.0027	
03/08/22			0.46	0.42	0.0022	0.0025
04/05/22			0.15		0.0017	
04/12/22			0.11	0.13	0.0009	0.0013
05/03/22	0.11				0.0026	
05/10/22	0.55	0.33			0.0019	0.0023
06/01/22	0.66				0.0016	
06/07/22	0.45	0.56			0.0034	0.0025
07/06/22	0.14				0.0018	
07/12/22	0.19	0.17			0.0020	0.0019
08/02/22	0.13				0.0022	
08/09/22	0.01	0.07			0.0027	0.0025
09/08/22	0.12				0.0017	
09/15/22	0.2	0.16			0.0019	0.0018
10/04/22	0.11				0.0060	
10/11/22	0.11	0.11			0.0020	0.0040
11/01/22	0.11				0.0023	
11/08/22	0.11	0.11			0.0012	0.0018
12/06/22			0.12		0.0015	
12/13/22			0.16	0.14	0.0027	0.0021
01/03/23			0.012		0.0095	
01/10/23			0.49	0.25	0.0056	0.0076
02/07/23			0.30		0.0098	
02/14/23			0.94	0.62	0.0036	0.0067
03/07/23			0.15		0.0014	
03/14/23			0.20	0.18	0.0060	0.0037
04/04/23			0.58		0.0065	
04/11/23			0.11	0.35	0.0067	0.0066
05/02/23	0.11				0.0033	

Date	Summer Ammonia-N (mg/l)		Winter Ammonia-N (mg/l)		Arsenic (mg/l)		
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average	
05/09/23	0.11	0.11			0.0021	0.0027	
06/06/23	0.11				0.0018		
06/13/23	0.68	0.40			0.0022	0.002	
07/05/23	0.11				0.0026		
07/11/23	0.11	0.11			0.0031	0.0029	
08/01/23	0.11				0.0031		
08/08/23	0.26	0.19			0.0033	0.0032	
09/05/23	0.39				0.0047		
09/12/23	0.22	0.31			0.0024	0.0036	
10/03/23	0.11				0.0022		
10/17/23	0.11	0.11			0.0024	0.0023	
11/07/23	1.0				0.012		
11/14/23	0.49	0.75			0.0029	0.0075	
12/05/23			0.17		0.0015		
12/12/23			0.17	0.17	0.0010	0.0013	
01/02/24			0.17		0.0011		
01/11/24			0.17	0.17	0.0020	0.0016	
02/06/24			0.25		0.0018		
02/13/24			0.53	0.39	0.0021	0.0020	
03/05/24			0.25		0.0014		
03/12/24			0.25	0.25	0.0012	0.0013	
04/02/24			7.61		0.0014		
04/09/24			0.25	3.9	0.0015	0.0015	
05/07/24	0.25				0.0010		
05/14/24	0.25	0.25			0.00090	0.0010	
06/04/24	0.25				0.0030		
06/11/24	0.25	0.25			0.0011	0.0021	
07/02/24	0.25				0.0015		
07/09/24	0.25	0.25			0.0017	0.0016	
08/13/24	0.25				0.0041		
08/20/24	0.25	0.25			0.0029	0.0035	
09/03/24	0.59				0.0031		
09/10/24	0.25	0.42			0.0022	0.0027	
10/01/24	0.25				0.00090		
10/15/24	0.25	0.25			0.00080	0.00085	
11/05/24	0.25				0.00070		
11/12/24	0.25	0.25			0.00050	0.00060	
12/03/24			0.25		0.0035		
12/10/24			0.25	0.25	0.0041	0.0038	
Outlier Analysis	mean	0.27	0.51		0.0028		
	std	0.19	1.31		0.0029		
	mean + 3std	0.83	4.45		0.011		
Reasonable Potential Analysis	n	54	27	32	16	86	43
	CV	0.7	0.6	2.6	1.8	1.0	0.8
	max	1	0.75	7.61	3.9	0.022	0.012

ATTACHMENT 6-2
Effluent Data for AESI Petersburg (IN0002887) Outfall
001 (Outfall 009)

Date	Cadmium (mg/l)		Chromium (mg/l)		Copper (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/10/21	0.00080		0.0060		0.012	
06/17/21	0.00080	0.00080	0.0060	0.0060	0.0061	0.0091
07/08/21	0.00080		0.0060		0.0050	
07/15/21	0.00080	0.00080	0.0060	0.0060	0.0050	0.0050
08/05/21	0.00080		0.0060		0.0072	
08/17/21	0.00080	0.00080	0.0060	0.0060	0.0084	0.0078
09/09/21	0.00080		0.0060		0.0050	
09/16/21	0.00080	0.00080	0.0060	0.0060	0.0050	0.0050
10/07/21	0.00080		0.0060		0.0050	
10/14/21	0.00080	0.00080	0.0060	0.0060	0.0080	0.0065
11/09/21	0.00028		0.060		0.010	
11/16/21	0.00028	0.00028	0.0060	0.033	0.0079	0.0088
12/07/21	0.00028		0.0018		0.0043	
12/14/21	0.0028	0.0015	0.0015	0.0017	0.0068	0.0056
01/04/22	0.00028		0.0033		0.0058	
01/11/22	0.00028	0.00028	0.014	0.0087	0.0034	0.0046
02/01/22	0.00028		0.014		0.0031	
02/08/22	0.00028	0.00028	0.014	0.014	0.0025	0.0028
03/01/22	0.00028		0.014		0.0050	
03/08/22	0.00028	0.00028	0.0016	0.0078	0.0047	0.0049
04/05/22	0.00028		0.014		0.0031	
04/12/22	0.00028	0.00028	0.014	0.014	0.0028	0.0030
05/03/22	0.00028		0.014		0.0037	
05/10/22	0.00028	0.00028	0.014	0.014	0.0026	0.0032
06/01/22	0.00028		0.014		0.0042	
06/07/22	0.00028	0.00028	0.014	0.014	0.012	0.0081
07/06/22	0.00028		0.014		0.0047	
07/12/22	0.00028	0.00028	0.014	0.014	0.0054	0.0051
08/02/22	0.00028		0.0015		0.0049	
08/09/22	0.00028	0.00028	0.0019	0.0017	0.0060	0.0055
09/08/22	0.00028		0.0014		0.0039	
09/15/22	0.00028	0.00028	0.0021	0.0018	0.0044	0.0042
10/04/22	0.00038		0.0023		0.0076	
10/11/22	0.00028	0.00033	0.0016	0.0020	0.0042	0.0059
11/01/22	0.00028		0.0021		0.0042	
11/08/22	0.00028	0.00028	0.0024	0.0023	0.0041	0.0042
12/06/22	0.00028		0.0016		0.0051	
12/13/22	0.00028	0.00028	0.0027	0.0022	0.0042	0.0047
01/03/23	0.00028		0.0025		0.0062	
01/10/23	0.00028	0.00028	0.0026	0.0026	0.0067	0.0065
02/07/23	0.00037		0.0037		0.0059	
02/14/23	0.00028	0.00033	0.0025	0.0031	0.0039	0.0049
03/07/23	0.00018		0.014		0.0037	
03/14/23	0.00017	0.00018	0.014	0.014	0.010	0.0068
04/04/23	0.00012		0.018		0.0047	
04/11/23	0.000048	0.000084	0.0028	0.010	0.0045	0.0046
05/02/23	0.000032		0.032		0.0037	

Date	Cadmium (mg/l)		Chromium (mg/l)		Copper (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
05/09/23	0.00017	0.00010	0.032	0.032	0.0085	0.0061
06/06/23	0.000035		0.0021		0.014	
06/13/23	0.000092	0.000064	0.026	0.014	0.0065	0.010
07/05/23	0.000080		0.014		0.0072	
07/11/23	0.000025	0.000053	0.015	0.015	0.011	0.0091
08/01/23	0.000019		0.028		0.016	
08/08/23	0.000078	0.000049	0.025	0.027	0.016	0.016
09/05/23	0.000033		0.016		0.0041	
09/12/23	0.000031	0.000032	0.028	0.022	0.0024	0.0033
10/03/23	0.000030		0.014		0.0030	
10/17/23	0.000033	0.000032	0.0014	0.0077	0.0037	0.0034
11/07/23	0.00010		0.0014		0.0019	
11/14/23	0.00010	0.00010	0.0037	0.0026	0.0032	0.0026
12/05/23	0.00015		0.0037		0.0038	
12/12/23	0.00010	0.00013	0.0037	0.0037	0.0040	0.0039
01/02/24	0.00010		0.0037		0.0036	
01/11/24	0.00010	0.00010	0.0037	0.0037	0.0031	0.0034
02/06/24	0.0010		0.0020		0.0030	
02/13/24	0.0010	0.0010	0.00080	0.0014	0.0040	0.0035
03/05/24	0.0010		0.00070		0.0020	
03/12/24	0.0010	0.0010	0.00060	0.00065	0.0010	0.0015
04/02/24	0.00010		0.00070		0.0020	
04/09/24	0.00010	0.00010	0.00070	0.00070	0.0030	0.0025
05/07/24	0.00010		0.00090		0.0030	
05/14/24	0.00010	0.00010	0.00070	0.00080	0.0020	0.0025
06/04/24	0.00010		0.00090		0.0030	
06/11/24	0.00010	0.00010	0.00060	0.00075	0.0120	0.0075
07/02/24	0.00010		0.00060		0.0020	
07/09/24	0.00010	0.00010	0.00060	0.00060	0.0020	0.0020
08/13/24	0.00010		0.00090		0.0010	
08/20/24	0.00010	0.00010	0.00090	0.00090	0.0020	0.0015
09/03/24	0.00010		0.00080		0.0020	
09/10/24	0.00010	0.00010	0.00060	0.00070	0.0040	0.0030
10/01/24	0.00010		0.00060		0.0010	
10/15/24	0.00010	0.00010	0.00060	0.00060	0.0020	0.0015
11/05/24	0.00010		0.0010		0.0020	
11/12/24	0.00010	0.00010	0.00060	0.00080	0.0010	0.0015
12/03/24	0.00010		0.0020		0.0030	
12/10/24	0.00010	0.00010	0.0016	0.0018	0.0020	0.0025
Outlier Analysis	mean	0.00032	0.0076		0.0050	
	std	0.00038	0.010		0.0032	
	mean + 3std	0.0015	0.037		0.015	
Reasonable Potential Analysis	n	86	43	86	43	43
	CV	1.2	1.0	1.3	1.1	0.6
	max	0.0028	0.0015	0.060	0.033	0.016

ATTACHMENT 6-3
Effluent Data for AESI Petersburg (IN0002887) Outfall
001 (Outfall 009)

Date	Iron (mg/l)		Lead (mg/l)		Manganese (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/10/21	0.12		0.0020		0.012	
06/17/21	0.25	0.19	0.0020	0.0020	0.0090	0.011
07/08/21	0.11		0.0020		0.46	
07/15/21	0.12	0.12	0.0020	0.0020	0.0090	0.23
08/05/21	0.09		0.0020		0.0090	
08/17/21	0.44	0.27	0.0020	0.0020	0.0090	0.0090
09/09/21	0.11		0.0020		0.0090	
09/16/21	0.09	0.10	0.0020	0.0020	0.048	0.029
10/07/21	0.09		0.0020		0.026	
10/14/21	0.51	0.30	0.0020	0.0020	0.038	0.032
11/09/21	0.9		0.0010		0.090	
11/16/21	0.61	0.76	0.00030	0.00065	0.031	0.061
12/07/21	0.13		0.00030		0.010	
12/14/21	0.13	0.13	0.00030	0.00030	0.023	0.017
01/04/22	0.06		0.00030		0.0084	
01/11/22	0.22	0.14	0.00030	0.00030	0.019	0.014
02/01/22	0.32		0.00030		0.010	
02/08/22	0.22	0.27	0.00030	0.00030	0.010	0.010
03/01/22	0.22		0.00030		0.12	
03/08/22	0.14	0.18	0.00030	0.00030	0.026	0.073
04/05/22	0.22		0.00030		0.010	
04/12/22	0.22	0.22	0.00030	0.00030	0.010	0.010
05/03/22	0.22		0.00030		0.030	
05/10/22	0.22	0.22	0.00030	0.00030	0.010	0.020
06/01/22	0.22		0.00030		0.047	
06/07/22	0.22	0.22	0.00030	0.00030	0.11	0.079
07/06/22	0.22		0.00030		0.016	
07/12/22	0.22	0.22	0.00030	0.00030	0.010	0.013
08/02/22	0.30		0.00030		0.074	
08/09/22	0.10	0.20	0.00030	0.00030	0.035	0.055
09/08/22	0.063		0.00030		0.066	
09/15/22	0.022	0.043	0.00030	0.00030	0.022	0.044
10/04/22	0.15		0.00030		0.079	
10/11/22	0.051	0.10	0.00030	0.00030	0.024	0.052
11/01/22	0.04		0.00033		0.15	
11/08/22	0.022	0.031	0.00033	0.00033	0.015	0.083
12/06/22	0.085		0.00033		0.029	
12/13/22	0.096	0.091	0.00033	0.00033	0.23	0.13
01/03/23	0.06		0.00033		0.27	
01/10/23	0.25	0.16	0.00033	0.00033	0.096	0.18
02/07/23	0.22		0.00033		0.19	
02/14/23	0.061	0.14	0.00033	0.00033	0.035	0.11
03/07/23	0.22		0.000097		0.023	
03/14/23	0.22	0.22	0.00031	0.00020	0.12	0.072
04/04/23	0.22		0.00033		0.12	
04/11/23	0.022	0.12	0.000097	0.00021	0.021	0.071
05/02/23	0.45		0.000097		0.056	

Date	Iron (mg/l)		Lead (mg/l)		Manganese (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
05/09/23	0.038	0.24	0.00013	0.00011	0.028	0.042
06/06/23	0.04		0.00020		0.010	
06/13/23	0.24	0.14	0.00024	0.00022	0.055	0.033
07/05/23	0.22		0.00019		0.027	
07/11/23	0.22	0.22	0.000097	0.00014	0.010	0.019
08/01/23	0.22		0.00032		0.041	
08/08/23	0.64	0.43	0.00098	0.00065	0.11	0.076
09/05/23	0.22		0.000097		0.027	
09/12/23	0.22	0.22	0.00024	0.00017	0.16	0.094
10/03/23	0.22		0.00029		0.016	
10/17/23	0.12	0.17	0.00055	0.00042	0.11	0.063
11/07/23	0.022		0.00064		0.25	
11/14/23	0.061	0.042	0.00064	0.00064	0.052	0.15
12/05/23	0.073		0.00064		0.024	
12/12/23	0.061	0.067	0.00064	0.00064	0.029	0.027
01/02/24	0.065		0.00064		0.0041	
01/11/24	0.061	0.063	0.00064	0.00064	0.12	0.062
02/06/24	0.029		0.00050		0.029	
02/13/24	0.090	0.060	0.00050	0.00050	0.0070	0.018
03/05/24	0.054		0.00050		0.020	
03/12/24	0.090	0.072	0.00050	0.00050	0.148	0.084
04/02/24	0.086		0.00050		0.147	
04/09/24	0.025	0.056	0.00050	0.00050	0.021	0.084
05/07/24	0.025		0.00050		0.011	
05/14/24	0.025	0.025	0.00050	0.00050	0.0050	0.0080
06/04/24	0.025		0.00050		0.019	
06/11/24	0.045	0.035	0.00050	0.00050	0.168	0.094
07/02/24	0.036		0.00050		0.062	
07/09/24	0.025	0.031	0.00050	0.00050	0.045	0.054
08/13/24	0.025		0.00050		0.020	
08/20/24	0.025	0.025	0.00050	0.00050	0.052	0.036
09/03/24	0.078		0.00050		0.70	
09/10/24	0.025	0.052	0.00050	0.00050	0.039	0.37
10/01/24	0.059		0.00050		0.16	
10/15/24	0.042	0.051	0.00050	0.00050	0.008	0.084
11/05/24	0.127		0.00050		0.10	
11/12/24	0.054	0.091	0.00050	0.00050	0.16	0.13
12/03/24	0.119		0.00050		0.026	
12/10/24	0.102	0.11	0.00050	0.00050	0.063	0.045
Outlier Analysis	mean	0.15	0.00058		0.069	
	std	0.15	0.00054		0.10	
	mean + 3std	0.61	0.0022		0.37	
Reasonable Potential Analysis	n	86	43	86	43	43
	CV	1.0	0.8	0.9	0.9	1.0
	max	0.90	0.76	0.0020	0.0020	0.70

ATTACHMENT 6-4
Effluent Data for AESI Petersburg (IN0002887) Outfall
001 (Outfall 009)

Date	Nickel (mg/l)		Selenium (mg/l)		Zinc (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/10/21	0.020		0.0086		0.030	
06/17/21	0.020	0.020	0.0055	0.0071	0.030	0.030
07/08/21	0.020		0.0063		0.030	
07/15/21	0.020	0.020	0.0057	0.0060	0.030	0.030
08/05/21	0.020		0.0024		0.030	
08/17/21	0.020	0.020	0.0029	0.0027	0.030	0.030
09/09/21	0.020		0.010		0.030	
09/16/21	0.020	0.020	0.0061	0.0081	0.030	0.030
10/07/21	0.020		0.0044		0.030	
10/14/21	0.020	0.020	0.0051	0.0048	0.030	0.030
11/09/21	0.010		0.0052		0.30	
11/16/21	0.020	0.015	0.0031	0.0042	0.030	0.17
12/07/21	0.0045		0.0046		0.012	
12/14/21	0.0075	0.0060	0.0015	0.0031	0.0070	0.010
01/04/22	0.0037		0.0017		0.0060	
01/11/22	0.025	0.014	0.0058	0.0038	0.025	0.016
02/01/22	0.025		0.0029		0.057	
02/08/22	0.025	0.025	0.0063	0.0046	0.025	0.041
03/01/22	0.025		0.0068		0.025	
03/08/22	0.0084	0.017	0.0052	0.0060	0.012	0.019
04/05/22	0.025		0.0062		0.025	
04/12/22	0.025	0.025	0.0032	0.0047	0.025	0.025
05/03/22	0.025		0.012		0.041	
05/10/22	0.025	0.025	0.0056	0.0088	0.040	0.041
06/01/22	0.025		0.0029		0.056	
06/07/22	0.025	0.025	0.0070	0.0050	0.025	0.041
07/06/22	0.025		0.0035		0.025	
07/12/22	0.025	0.025	0.0026	0.0031	0.046	0.036
08/02/22	0.0068		0.0028		0.013	
08/09/22	0.010	0.0084	0.0044	0.0036	0.016	0.015
09/08/22	0.0064		0.0028		0.042	
09/15/22	0.0062	0.0063	0.027	0.015	0.016	0.029
10/04/22	0.0094		0.014		0.0030	
10/11/22	0.0083	0.0089	0.0089	0.011	0.0030	0.0030
11/01/22	0.0088		0.011		0.0061	
11/08/22	0.0066	0.0077	0.0041	0.0076	0.0025	0.0043
12/06/22	0.0069		0.0044		0.0025	
12/13/22	0.012	0.0095	0.0039	0.0042	0.020	0.011
01/03/23	0.0090		0.070		0.0025	
01/10/23	0.0083	0.0087	0.012	0.041	0.0025	0.0025
02/07/23	0.011		0.0050		0.021	
02/14/23	0.0077	0.0094	0.0055	0.0053	0.0089	0.015
03/07/23	0.025		0.0038		0.033	
03/14/23	0.025	0.025	0.012	0.0079	0.025	0.029
04/04/23	0.025		0.037		0.025	
04/11/23	0.003	0.014	0.027	0.032	0.0055	0.015
05/02/23	0.025		0.0066		0.055	

Date	Nickel (mg/l)		Selenium (mg/l)		Zinc (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
05/09/23	0.0027	0.014	0.0057	0.0062	0.13	0.093
06/06/23	0.0025		0.0037		0.010	
06/13/23	0.025	0.014	0.0060	0.0049	0.076	0.043
07/05/23	0.025		0.0065		0.025	
07/11/23	0.025	0.025	0.025	0.016	0.050	0.038
08/01/23	0.025		0.0042		0.025	
08/08/23	0.025	0.025	0.012	0.0081	0.23	0.13
09/05/23	0.025		0.020		0.027	
09/12/23	0.028	0.027	0.0055	0.013	0.11	0.069
10/03/23	0.025		0.0094		0.047	
10/17/23	0.0064	0.016	0.0093	0.0094	0.013	0.030
11/07/23	0.0067		0.029		0.0076	
11/14/23	0.0050	0.0059	0.0071	0.018	0.0090	0.0083
12/05/23	0.0027		0.0050		0.015	
12/12/23	0.0029		0.0035		0.016	
12/30/23	--	0.0028	0.012	0.0068	--	0.016
01/02/24	0.0025		0.0020		0.019	
01/11/24	0.0043		0.0091		0.024	
01/30/24	--	0.0034	0.0120	0.0077	--	0.022
02/06/24	0.0050		0.0070		0.020	
02/13/24	0.0030	0.0040	0.0040	0.0055	0.020	0.020
03/05/24	0.0020		0.0030		0.020	
03/12/24	0.0060	0.0040	0.0060	0.0045	0.020	0.020
04/02/24	0.0040		0.0030		0.020	
04/09/24	0.0030	0.0035	0.0020	0.0025	0.020	0.020
05/07/24	0.0030		0.0020		0.020	
05/14/24	0.0020	0.0025	0.0020	0.0020	0.020	0.020
06/04/24	0.0060		0.039		0.020	
06/11/24	0.013	0.0095	0.014	0.027	0.020	0.020
07/02/24	0.0040		0.015		0.020	
07/09/24	0.0040	0.0040	0.015	0.015	0.020	0.020
08/13/24	0.0040		0.0080		0.020	
08/20/24	0.0040	0.0040	0.011	0.0095	0.020	0.020
09/03/24	0.0060		0.028		0.020	
09/10/24	0.0050	0.0055	0.014	0.021	0.020	0.020
10/01/24	0.0080		0.018		0.020	
10/15/24	0.0040	0.0060	0.011	0.015	0.020	0.020
11/05/24	0.0050		0.0030		0.020	
11/12/24	0.0090	0.0070	0.0020	0.0025	0.020	0.020
12/03/24	0.0060		0.012		0.020	
12/10/24	0.0050	0.0055	0.010	0.011	0.020	0.020
Outlier Analysis	mean	0.013	0.0093		0.031	
	std	0.0091	0.0101		0.042	
	mean + 3std	0.040	0.040		0.16	
Reasonable Potential Analysis	n	86	43	88	43	86
	CV	0.7	0.6	1.1	0.9	1.4
	max	0.028	0.027	0.070	0.041	0.30

ATTACHMENT 6-5
Effluent Data for AESI Petersburg (IN0002887) Outfall
001 (Outfall 009)

Date	Boron (mg/l)		Chloride (mg/l)		Free Cyanide (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/10/21	4.0		82		0.0031	
06/17/21	3.7	3.9	77	80	0.0031	0.0031
07/08/21	3.9		85		0.0048	
07/15/21	2.4	3.2	83	84	0.0035	0.0042
08/05/21	0.11		86		0.0035	
08/17/21	1.1	0.61	88	87	0.0035	0.0035
09/09/21	13		210		0.0085	
09/16/21	5.9	9.5	130	170	0.012	0.010
10/07/21	2.2		78		0.0047	
10/14/21	4.3	3.3	120	99	0.0035	0.0041
11/09/21	2.4		95		0.0037	
11/16/21	2.3	2.4	74	85	0.0035	0.0036
12/07/21	7.1		100		0.0069	
12/14/21	0.76	3.9	61	81	0.0035	0.0052
01/04/22	0.44		48		0.0053	
01/11/22	14	7.2	98	73	0.0051	0.0052
02/01/22	4.7		110		0.0064	
02/08/22	2.2	3.5	91	101	0.0098	0.0081
03/01/22	5.1		120		0.0069	
03/08/22	4.3	4.7	94	107	0.0050	0.0060
04/05/22	12		210		0.017	
04/12/22	2.6	7.3	99	155	0.0049	0.011
05/03/22	13		180		0.017	
05/10/22	4.4	8.7	88	134	0.0090	0.013
06/01/22	4.9		76		0.0035	
06/07/22	19	12.0	230	153	0.0060	0.0048
07/06/22	2.1		130		0.0035	
07/12/22	0.78	1.4	98	114	0.0035	0.0035
08/02/22	3.2		150		0.018	
08/09/22	2.1	2.7	100	125	0.0072	0.013
09/08/22	3.9		150		0.0056	
09/15/22	18	11.0	230	190	0.0066	0.0061
10/04/22	9.5		230		0.0050	
10/11/22	11	10.3	230	230	0.0071	0.0061
11/01/22	9.7		280		0.0016	
11/08/22	1.5	5.6	230	255	0.0040	0.0028
12/06/22	1.8		260		0.0047	
12/13/22	1.0	1.4	170	215	0.0030	0.0039
01/03/23	38		680		0.0054	
01/10/23	9.4	23.7	210	445	0.0074	0.0064
02/07/23	13		180		0.0049	
02/14/23	8	10.5	180	180	0.0047	0.0048
03/07/23	7.4		170		0.0037	
03/14/23	6.7	7.1	90	130	0.0072	0.0055
04/04/23	11		240		0.018	
04/11/23	20	15.5	160	200	0.010	0.014
05/02/23	3		70		0.0014	

Date	Boron (mg/l)		Chloride (mg/l)		Free Cyanide (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
05/09/23	1.5	2.3	56	63	0.0030	0.0022
06/06/23	0.25		130		0.0054	
06/13/23	3.5	1.9	170	150	0.0048	0.0051
07/05/23	3.4		130		0.0056	
07/11/23	1.3	2.4	110	120	0.0030	0.0043
08/01/23	2.4		170		0.0030	
08/08/23	6.2	4.3	190	180	0.0046	0.0038
09/05/23	8.5		260		0.013	
09/12/23	28	18.3	210	235	0.0039	0.0085
10/03/23	4.5		170		0.0030	
10/17/23	0.96	2.7	270	220	0.0030	0.0030
11/07/23	24		360		0.0060	
11/14/23	4.4	14.2	210	285	0.0030	0.0045
12/05/23	2.8		180		0.0030	
12/12/23	1.8	2.3	200	190	0.0030	0.0030
01/02/24	0.48		190		0.0030	
01/11/24	3.60	2.0	150	170	0.0030	0.0030
02/06/24	6.03		161		0.0050	
02/13/24	3.65	4.8	136	149	0.0080	0.0065
03/05/24	4.72		97.3		0.0030	
03/12/24	12.7	8.7	157	127	0.0030	0.0030
04/02/24	3.1		108		0.0080	
04/09/24	3.8	3.4	101	105	0.0030	0.0055
05/07/24	0.93		110		0.0050	
05/14/24	2.0	1.5	103	107	0.0030	0.0040
06/04/24	12.3		169		0.0030	
06/11/24	6.8	9.5	128	149	0.0030	0.0030
07/02/24	10.3		225		0.0030	
07/09/24	9.0	9.7	71.3	148	0.0030	0.0030
08/13/24	5.0		342		0.0030	
08/20/24	6.5	5.7	144	243	0.0030	0.0030
09/03/24	36.1		777		0.0030	
09/10/24	5.4	20.8	442	610	0.0030	0.0030
10/01/24	17.4		257		0.0030	
10/15/24	3.6	10.5	143	200	0.0030	0.0030
11/05/24	2.1		232		0.0030	
11/12/24	1.0	1.5	188	210	0.0090	0.0060
12/03/24	2.3		152		0.0030	
12/10/24	7.3	4.8	178	165	0.0030	0.0030
Outlier Analysis	mean	6.7	170		0.0053	
	std	7.3	113		0.0035	
	mean + 3std	29	510		0.016	
Reasonable Potential Analysis	n	86	43	86	43	43
	CV	1.1	0.8	0.7	0.6	0.6
	max	38.0	23.7	777	610	0.018

ATTACHMENT 6-6
Effluent Data for AESI Petersburg (IN0002887) Outfall 001
(Outfall 009)

Date	Fluoride (mg/l)		Sulfate (mg/l)		Date	Mercury (ng/l)	
	Daily	Monthly Average	Daily	Monthly Average		Daily	
06/10/21	0.56		500		06/15/21	12	
06/17/21	0.028	0.29	350	425	08/04/21	8.57	
07/08/21	0.33		1400		10/07/21	9.24	
07/15/21	0.56	0.45	640	1020	12/10/21	36.4	
08/05/21	0.28		660		02/08/22	27.6	
08/17/21	0.28	0.28	540	600	04/12/22	10.4	
09/09/21	1.30		1000		06/07/22	9.59	
09/16/21	0.58	0.94	740	870	08/16/22	1.94	
10/07/21	0.28		480		10/11/22	19.4	
10/14/21	0.44	0.36	640	560	10/27/22	20.8	
11/09/21	0.50		440		12/19/22	13.6	
11/16/21	0.60	0.55	400	420	02/08/23	5.25	
12/07/21	0.86		500		04/04/23	5.0	
12/14/21	0.44	0.65	300	400	06/06/23	5.0	
01/04/22	0.38		430		08/01/23	5.0	
01/11/22	0.78	0.58	520	475	10/03/23	5.0	
02/01/22	1.00		610		12/05/23	5.0	
02/08/22	0.40	0.70	470	540	02/13/24	1.6	
03/01/22	0.52		550		04/02/24	1.6	
03/08/22	0.40	0.46	710	630	06/04/24	2.3	
04/05/22	0.85		910		08/13/24	2.0	
04/12/22	0.50	0.68	730	820	12/03/24	4.7	
05/03/22	1.10		640		Outlier Analysis	mean	9.6
05/10/22	1.00	1.05	370	505		std	9.1
06/01/22	1.40		250		Reasonable Potential Analysis	mean + 3std	36.9
06/07/22	2.30	1.85	770	510		n	22
07/06/22	1.60		620			CV	0.9
07/12/22	1.60	1.60	560	590		max	36.4
08/02/22	0.96		580				
08/09/22	1.90	1.43	590	585			
09/08/22	1.00		680				
09/15/22	2.40	1.70	890	785			
10/04/22	1.50		930				
10/11/22	1.60	1.55	800	865			
11/01/22	1.10		930				
11/08/22	1.10	1.10	740	835			
12/06/22	1.10		660				
12/13/22	1.10	1.10	690	675			
01/03/23	5.00		1800				
01/10/23	1.10	3.05	880	1340			
02/07/23	2.30		740				
02/14/23	2.00	2.15	690	715			
03/07/23	1.10		540				
03/14/23	1.10	1.10	450	495			
04/04/23	1.20		640				
04/11/23	1.10	1.15	540	590			
05/02/23	1.10		430				
05/09/23	1.10	1.10	200	315			
06/06/23	1.10		620				
06/13/23	1.10	1.10	540	580			
07/05/23	1.10		600				
07/11/23	1.10	1.10	520	560			

Date	Fluoride (mg/l)		Sulfate (mg/l)		Date	Mercury (ng/l)
	Daily	Monthly Average	Daily	Monthly Average		
08/01/23	1.10		620			
08/08/23	1.10	1.10	840	730		
09/05/23	1.10		900			
09/12/23	1.10	1.10	690	795		
10/03/23	1.10		550			
10/17/23	1.10	1.10	780	665		
11/07/23	1.40		1000			
11/14/23	1.50	1.45	630	815		
12/05/23	1.50		500			
12/12/23	0.45	0.98	540	520		
01/02/24	1.50		540			
01/11/24	1.50	1.50	730	635		
02/06/24	1.05		715			
02/13/24	0.20	0.63	629	672		
03/05/24	0.39		452			
03/12/24	1.51	0.95	837	645		
04/02/24	0.46		1210			
04/09/24	0.48	0.47	514	862		
05/07/24	0.34		559			
05/14/24	0.54	0.44	555	557		
06/04/24	1.90		856			
06/11/24	0.74	1.32	707	782		
07/02/24	1.30		717			
07/09/24	1.06	1.18	1090	904		
08/13/24	4.34		1390			
08/20/24	0.87	2.61	559	975		
09/03/24	5.39		3300			
09/10/24	1.22	3.31	1630	2465		
10/01/24	1.47		942			
10/15/24	0.40	0.94	693	818		
11/05/24	0.53		575			
11/12/24	0.44	0.49	681	628		
12/03/24	0.64		707			
12/10/24	1.07	0.86	899	803		
Outlier Analysis	mean	1.1	720			
	std	0.9	388			
	mean + 3std	3.8	1884			
Reasonable Potential Analysis	n	86	43	86	43	
	CV	0.8	0.6	0.5	0.5	
	max	5.39	3.31	3300	2465	

ATTACHMENT 7

Reasonable Potential Statistical Procedure for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

Facility Name: AESI Petersburg Generating Station NPDES Number: IN0002887 WLA Number: 002836 WLA Report Date: December 2, 2025 Outfall Number: 009 Receiving Water: White River		Monthly Average Determination							Daily Maximum Determination						
Parameters	Reasonable Potential to Exceed? (Yes or No)*	Maximum Monthly Average (ug/l)	Number of Monthly Averages	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?	Maximum Daily Sample (ug/l)	Number of Daily Samples	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?
Arsenic	No	12	43	0.8	1.1	13	390	No	22	86	1	0.9	20	680	No
Cadmium	No	1.5	43	1	1.1	1.7	4.8	No	2.8	86	1.2	0.8	2.2	8.3	No
Total Chromium	No	33	43	1.1	1.1	36	4000	No	60	86	1.3	0.8	48	7000	No
Copper	No	16	43	0.6	1.1	18	44	No	16	86	0.6	0.9	14	75	No
Iron	No	760	43	0.8	1.1	840	3200	No	900	86	1	0.9	810	5500	No
Lead	No	2	43	0.9	1.1	2.2	260	No	2	86	0.9	0.9	1.8	450	No
Manganese	No	370	43	1	1.1	410	9900	No	700	86	1.5	0.8	560	17000	No
Mercury	Yes I					0.055	0.012	Yes	0.0364	22	0.9	1.5	0.055	0.02	Yes
Nickel	No	27	43	0.6	1.1	30	1100	No	28	86	0.7	0.9	25	1800	No
Selenium (lotic)	No	41	43	0.9	1.1	45	110	No	70	88	1.1	0.8	56	260	No
Zinc	No	170	43	1	1.1	190	270	No	300	86	1.4	0.8	240	470	No
Total Ammonia (as N)															
Summer	No	750	27	0.6	1.2	900	14000	No	1000	54	0.7	1	1000	24300	No
Winter	No	3900	16	1.8	2.3	9000	14000	No	7610	32	2.6	1.5	11400	24300	No
Boron	No	23700	43	0.8	1.1	26000	47000	No	38000	86	1.1	0.9	34000	82000	No
Chloride	No	610000	43	0.6	1.1	670000	760000	No	777000	86	0.7	0.9	700000	1300000	No
Cyanide, Free	No	14	43	0.6	1.1	15	25	No	18	86	0.7	0.9	16	44	No
Fluoride	No	3310	43	0.6	1.1	3600	18000	No	5390	86	0.8	0.9	4900	31000	No
Sulfate	No	2465000	43	0.5	1.1	2700000	55000000	No	3300000	86	0.5	0.9	3000000	95000000	No

* Reasonable Potential to Exceed:

- 1) "Yes I" means that a projected effluent quality (PEQ) exceeded a preliminary effluent limitation (PEL) based on a Tier I criterion.
- 2) "Yes II" means that a PEQ exceeded a PEL based on a Tier II criterion.
- 3) "Yes SSC" means that a PEQ exceeded a PEL based on a site-specific criterion.
- 4) "No" means that a PEQ did not exceed a PEL.
- 5) "Evaluate Criteria" means that a PEQ exceeded a PEL based on a screening value.

ATTACHMENT 8-1
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 010)

Date	Summer Ammonia-N (mg/l)		Winter Ammonia-N (mg/l)		Arsenic (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/11/21	0.20				0.020	
06/17/21	0.15	0.18			0.021	0.021
07/08/21	0.17				0.0017	
07/15/21	0.19	0.18			0.031	0.016
08/05/21	0.47				0.025	
08/12/21	2.5	1.5			0.029	0.027
09/09/21	0.20				0.028	
09/28/21	0.20	0.20			0.036	0.032
10/07/21	1.0				0.015	
10/14/21	0.80	0.90			0.012	0.014
11/09/21	0.39				0.013	
11/16/21	0.30	0.35			0.01	0.012
12/07/21			0.60		0.016	
12/14/21			0.51	0.56	0.017	0.017
01/11/22			0.46		0.019	
01/18/22			0.35	0.41	0.016	0.018
02/01/22			0.19		0.0076	
02/08/22			0.79	0.49	0.021	0.014
03/08/22			0.98		0.014	
04/12/22			0.58		0.012	
04/25/22			0.14	0.36	0.016	0.014
05/03/22	0.70				0.019	
05/17/22	0.27	0.49			0.018	0.019
06/01/22	0.78				0.020	
06/07/22	0.46	0.62			0.020	0.020
07/06/22	0.18				0.013	
07/12/22	0.17	0.18			0.014	0.014
08/02/22	0.31				0.019	
08/09/22	0.12	0.22			0.016	0.018
09/15/22	0.14				0.013	
09/22/22	0.11	0.13			0.013	0.013
10/04/22	0.11				0.014	
10/13/22	0.88	0.50			0.009	0.012
11/01/22	0.14				0.0076	
11/08/22	0.17	0.16			0.011	0.009
12/06/22			0.11		0.0085	
12/13/22			0.12	0.12	0.01	0.009
01/03/23			0.49		0.016	
01/10/23			0.11	0.30	0.014	0.015
02/07/23			0.13		0.012	
02/14/23			0.13	0.13	0.012	0.012
03/14/23			0.11		0.013	
03/21/23			0.11	0.11	0.014	0.014
04/18/23			0.11		0.015	
04/25/23			0.11	0.11	0.013	0.014
05/02/23	0.11				0.013	
05/09/23	0.15	0.13			0.011	0.012
06/06/23	0.11				0.011	
06/13/23	0.11	0.11			0.013	0.012

Date	Summer Ammonia-N (mg/l)		Winter Ammonia-N (mg/l)		Arsenic (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
07/05/23	0.20				0.024	
07/18/23	0.11	0.16			0.025	0.025
08/01/23	0.11				0.019	
08/08/23	0.16	0.14			0.024	0.022
09/05/23	0.11				0.021	
09/19/23	0.11	0.11			0.015	0.018
10/03/23	0.11				0.016	
10/17/23	0.11	0.11			0.013	0.015
11/07/23	0.11				0.012	
11/14/23	0.16	0.14			0.011	0.012
12/05/23			0.36		0.011	
12/12/23			0.28	0.32	0.0092	0.010
01/02/24			0.17		0.012	
01/11/24			0.28	0.23	0.016	0.014
02/06/24			0.25		0.0166	
02/13/24			0.25	0.25	0.0222	0.019
03/05/24			0.25		0.0141	
03/12/24			0.25	0.25	0.0146	0.014
04/02/24			0.34		0.014	
04/23/24			0.25	0.30	0.0178	0.016
05/07/24	0.25				0.0193	
05/14/24	0.25	0.25			0.0218	0.021
06/04/24	0.25				0.0186	
06/11/24	0.25	0.25			0.0228	0.021
07/02/24	0.25				0.0176	
07/09/24	0.25	0.25			0.0172	0.017
08/20/24	0.25				0.0243	
08/27/24	0.25	0.25			0.025	0.025
09/03/24	0.25				0.0152	
09/10/24	0.25	0.25			0.0246	0.020
10/01/24	0.25				0.0174	
10/08/24	0.25	0.25			0.0202	0.019
11/05/24	0.25				0.0115	
11/12/24	0.25	0.25			0.0111	0.011
12/03/24			0.25		0.0085	
12/10/24			0.93	0.59	0.0145	0.012
Outlier Analysis	mean	0.30	0.32		0.016	
	std	0.37	0.24		0.0058	
	mean + 3std	1.4	1.0		0.033	
Reasonable Potential Analysis	n	54	27	31	15	85
	CV	1.2	1.0	0.7	0.5	0.4
	max	2.5	1.5	0.98	0.59	0.036

ATTACHMENT 8-2
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 010)

Date	Cadmium (mg/l)		Total Chromium (mg/l)		Copper (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/11/21	0.00080		0.0060		0.005	
06/17/21	0.00080	0.00080	0.0060	0.0060	0.005	0.0050
07/08/21	0.00080		0.0060		0.021	
07/15/21	0.00080	0.00080	0.0060	0.0060	0.005	0.0130
08/05/21	0.00080		0.0060		0.005	
08/12/21	0.00080	0.00080	0.0060	0.0060	0.005	0.0050
09/09/21	0.00080		0.0060		0.005	
09/28/21	0.00080	0.00080	0.0060	0.0060	0.005	0.0050
10/07/21	0.00080		0.0060		0.005	
10/14/21	0.00080	0.00080	0.0060	0.0060	0.005	0.0050
11/09/21	0.00030		0.060		0.001	
11/16/21	0.00030	0.00030	0.0060	0.033	0.001	0.0010
12/07/21	0.00030		0.0020		0.001	
12/14/21	0.00030	0.00030	0.0014	0.0017	0.001	0.0010
01/11/22	0.00030		0.014		0.001	
01/18/22	0.00020	0.00025	0.014	0.014	0.001	0.0010
02/01/22	0.00028		0.014		0.001	
02/08/22	0.00028	0.00028	0.014	0.014	0.001	0.0011
03/08/22	0.00028		0.0019		0.001	
04/12/22	0.00030		0.014		0.001	
04/25/22	0.00030	0.00030	0.014	0.014	0.001	0.0010
05/03/22	0.00028		0.014		0.001	
05/17/22	0.00028	0.00028	0.014	0.014	0.001	0.0011
06/01/22	0.00028		0.015		0.001	
06/07/22	0.00028	0.00028	0.014	0.015	0.001	0.0011
07/06/22	0.00028		0.014		0.001	
07/12/22	0.00028	0.00028	0.018	0.016	0.001	0.0011
08/02/22	0.00030		0.0014		0.001	
08/09/22	0.00030	0.00030	0.0026	0.0020	0.001	0.0010
09/15/22	0.00030		0.0032		0.001	
09/22/22	0.00030	0.00030	0.0019	0.0026	0.001	0.0010
10/04/22	0.00028		0.0016		0.001	
10/13/22	0.0028	0.0015	0.0019	0.0018	0.001	0.0010
11/01/22	0.00028		0.0025		0.001	
11/08/22	0.00028	0.00028	0.0023	0.0024	0.001	0.0011
12/06/22	0.00028		0.0014		0.001	
12/13/22	0.00028	0.00028	0.0020	0.0017	0.001	0.0011
01/03/23	0.00028		0.0025		0.002	
01/10/23	0.00028	0.00028	0.0015	0.0020	0.003	0.0024
02/07/23	0.00028		0.0020		0.001	
02/14/23	0.00028	0.00028	0.0017	0.0019	0.001	0.0011
03/14/23	0.000046		0.014		0.001	
03/21/23	0.000035	0.00004	0.014	0.014	0.001	0.0008
04/18/23	0.00011		0.0028		0.001	
04/25/23	0.000055	0.00008	0.0019	0.0024	0.000	0.0004
05/02/23	0.000036		0.021		0.000	
05/09/23	0.000076	0.00006	0.0036	0.012	0.000	0.00022
06/06/23	0.000024		0.0023		0.000	
06/13/23	0.000046	0.00004	0.033	0.018	0.001	0.0007

Date	Cadmium (mg/l)		Total Chromium (mg/l)		Copper (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
07/05/23	0.000069		0.018		0.002	
07/18/23	0.000025	0.00005	0.014	0.016	0.001	0.0012
08/01/23	0.000046		0.029		0.002	
08/08/23	0.000047	0.00005	0.025	0.027	0.001	0.0014
09/05/23	0.000042		0.019		0.000	
09/19/23	0.000047	0.00004	0.014	0.017	0.001	0.0006
10/03/23	0.000028		0.021		0.001	
10/17/23	0.000019	0.00002	0.0014	0.011	0.002	0.0012
11/07/23	0.00010		0.0014		0.001	
11/14/23	0.00010	0.00010	0.0037	0.0026	0.001	0.0013
12/05/23	0.00010		0.0037		0.0013	
12/12/23	0.00010	0.00010	0.0037	0.0037	0.0016	0.0015
01/02/24	0.00010		0.0037		0.001	
01/11/24	0.00011	0.00011	0.0037	0.0037	0.001	0.0014
02/06/24	0.0002		0.0020		0.003	
02/13/24	0.0002	0.00020	0.0020	0.0020	0.003	0.0030
03/05/24	0.0001		0.00060		0.001	
03/12/24	0.0002	0.00015	0.00060	0.0006	0.001	0.0010
04/02/24	0.0002		0.00060		0.001	
04/23/24	0.0005	0.00035	0.00250	0.0016	0.002	0.0015
05/07/24	0.0002		0.00060		0.001	
05/14/24	0.0001	0.00015	0.00060	0.00060	0.001	0.0010
06/04/24	0.0001		0.00060		0.001	
06/11/24	0.0001	0.00010	0.00060	0.00060	0.001	0.0010
07/02/24	0.0001		0.00060		0.001	
07/09/24	0.0001	0.00010	0.00060	0.00060	0.001	0.0010
08/20/24	0.0001		0.00060		0.001	
08/27/24	0.0001	0.00010	0.0060	0.0033	0.010	0.0055
09/03/24	0.0001		0.00060		0.001	
09/10/24	0.0001	0.00010	0.00060	0.00060	0.001	0.0010
10/01/24	0.0001		0.00060		0.001	
10/08/24	0.0001	0.00010	0.00060	0.00060	0.001	0.0010
11/05/24	0.0001		0.00060		0.002	
11/12/24	0.0001	0.00010	0.00060	0.00060	0.001	0.0015
12/03/24	0.0002		0.00060		0.001	
12/10/24	0.0003	0.00025	0.00060	0.00060	0.003	0.0020
Outlier Analysis	mean	0.00028	0.0072		0.0019	
	std	0.00036	0.0093		0.0026	
	mean + 3std	0.0014	0.035		0.0098	
Reasonable Potential Analysis	n	85	42	85	42	42
	CV	1.3	1.1	1.3	1.1	1.2
	max	0.0028	0.0015	0.060	0.033	0.021
					0.013	

ATTACHMENT 8-3
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 010)

Date	Iron (mg/l)		Lead (mg/l)		Manganese (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/11/21	0.13		0.0020		0.44	
06/17/21	0.11	0.12	0.0020	0.0020	0.22	0.33
07/08/21	0.27		0.0020		0.014	
07/15/21	0.13	0.20	0.0020	0.0020	0.94	0.48
08/05/21	0.09		0.0020		0.09	
08/12/21	0.23	0.16	0.0020	0.0020	0.97	0.53
09/09/21	0.09		0.0020		0.56	
09/28/21	0.12	0.11	0.0020	0.0020	0.78	0.67
10/07/21	0.21		0.0020		0.86	
10/14/21	0.11	0.16	0.0020	0.0020	0.85	0.86
11/09/21	0.90		0.00030		0.47	
11/16/21	0.15	0.53	0.00030	0.00030	0.47	0.47
12/07/21	0.56		0.00040		0.39	
12/14/21	0.24	0.40	0.00030	0.00035	0.88	0.64
01/11/22	0.86		0.00030		1.50	
01/18/22	0.22	0.54	0.00030	0.00030	0.94	1.2
02/01/22	0.42		0.00030		0.13	
02/08/22	0.22	0.32	0.00030	0.00030	0.53	0.33
03/08/22	0.86		0.00060		0.21	
04/12/22	0.22		0.00030		0.34	
04/25/22	0.22	0.22	0.00030	0.00030	0.37	0.36
05/03/22	0.22		0.00030		0.37	
05/17/22	0.22	0.22	0.00030	0.00030	0.85	0.61
06/01/22	0.28		0.0016		0.55	
06/07/22	0.22	0.25	0.00033	0.00097	0.41	0.48
07/06/22	0.22		0.00033		0.37	
07/12/22	0.22	0.22	0.00033	0.00033	0.87	0.62
08/02/22	0.11		0.00030		0.55	
08/09/22	0.051	0.081	0.00030	0.00030	0.49	0.52
09/15/22	0.13		0.00030		0.43	
09/22/22	0.12	0.13	0.00030	0.00030	0.26	0.35
10/04/22	0.17		0.00030		0.23	
10/13/22	0.16	0.17	0.00030	0.00030	0.23	0.23
11/01/22	0.19		0.00033		0.44	
11/08/22	0.13	0.16	0.00033	0.00033	0.36	0.40
12/06/22	0.14		0.00033		0.17	
12/13/22	0.093	0.12	0.00033	0.00033	0.22	0.20
01/03/23	0.36		0.00033		0.46	
01/10/23	0.14	0.25	0.00033	0.00033	0.19	0.33
02/07/23	0.17		0.00033		0.27	
02/14/23	0.21	0.19	0.00033	0.00033	0.23	0.25
03/14/23	0.22		0.000097		0.32	
03/21/23	0.22	0.22	0.00011	0.00010	0.22	0.27
04/18/23	0.022		0.00016		0.04	
04/25/23	0.022	0.022	0.000097	0.00013	0.03	0.030
05/02/23	0.22		0.000097		0.18	
05/09/23	0.20	0.21	0.000097	0.00010	0.28	0.23
06/06/23	0.041		0.000097		0.02	
06/13/23	0.34	0.19	0.00016	0.00013	0.32	0.17

Date	Iron (mg/l)		Lead (mg/l)		Manganese (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
07/05/23	0.22		0.00021		0.87	
07/18/23	0.22	0.22	0.00015	0.00018	0.40	0.64
08/01/23	0.22		0.00023		0.48	
08/08/23	0.71	0.47	0.00036	0.00030	0.74	0.61
09/05/23	0.22		0.000097		0.83	
09/19/23	0.22	0.22	0.0027	0.00140	0.41	0.62
10/03/23	0.22		0.00047		0.45	
10/17/23	0.11	0.17	0.00041	0.00044	0.44	0.45
11/07/23	0.090		0.00064		0.56	
11/14/23	0.12	0.11	0.00064	0.00064	0.52	0.54
12/05/23	0.15		0.00064		0.55	
12/12/23	0.11	0.13	0.00064	0.00064	0.46	0.51
01/02/24	0.21		0.00064		0.51	
01/11/24	0.20	0.21	0.00064	0.00064	0.46	0.49
02/06/24	0.18		0.00050		0.43	
02/13/24	0.25	0.21	0.00050	0.00050	0.50	0.46
03/05/24	0.22		0.00050		0.25	
03/12/24	0.19	0.21	0.00050	0.00050	0.34	0.29
04/02/24	0.16		0.00050		0.34	
04/23/24	0.13	0.14	0.00050	0.00050	0.32	0.33
05/07/24	0.14		0.00050		0.72	
05/14/24	0.096	0.12	0.00050	0.00050	0.90	0.81
06/04/24	0.093		0.00050		0.42	
06/11/24	0.078	0.086	0.00050	0.00050	0.43	0.42
07/02/24	0.029		0.00050		0.22	
07/09/24	0.059	0.044	0.00050	0.00050	0.24	0.23
08/20/24	0.094		0.00050		0.28	
08/27/24	0.084	0.089	0.00050	0.0028	0.23	0.25
09/03/24	0.11		0.00050		0.08	
09/10/24	0.091	0.098	0.00050	0.00050	0.25	0.16
10/01/24	0.19		0.00050		0.37	
10/08/24	0.11	0.15	0.00050	0.00050	0.23	0.30
11/05/24	0.11		0.00050		0.18	
11/12/24	0.16	0.14	0.00050	0.00050	0.28	0.23
12/03/24	0.15		0.00050		0.17	
12/10/24	0.50	0.32	0.00050	0.00050	1.16	0.67
Outlier Analysis	mean	0.21	0.00066		0.44	
	std	0.17	0.00077		0.28	
	mean + 3std	0.71	0.0030		1.3	
Reasonable Potential Analysis	n	85	42	85	42	42
	CV	0.8	0.6	1.2	1.0	0.5
	max	0.90	0.54	0.0050	0.0028	1.5

ATTACHMENT 8-4
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 001)

Date	Nickel (mg/l)		Selenium (mg/l)			Zinc (mg/l)	
	Daily	Monthly Average	Daily	Adjusted Daily	Monthly Average	Daily	Monthly Average
06/11/21	0.020		0.0033	0.0033		0.030	
06/17/21	0.020	0.020	0.015	0.015	0.0092	0.030	0.030
07/08/21	0.020		0.0042	0.0042		0.030	
07/15/21	0.020	0.020	0.0049	0.0049	0.0046	0.030	0.030
08/05/21	0.020		0.0029	0.0029		0.030	
08/12/21	0.020	0.020	0.0035	0.0035	0.0032	0.030	0.030
09/09/21	0.020		0.0054	0.0054		0.030	
09/28/21	0.020	0.020	0.029	0.029	0.017	0.062	0.046
10/07/21	0.020		0.013	0.013		0.030	
10/14/21	0.020	0.020	0.011	0.011	0.012	0.030	0.030
11/09/21	0.20		0.0033	0.0033		0.30	
11/16/21	0.020	0.11	0.0034	0.0034	0.0034	0.030	0.17
12/07/21	0.0030		0.0037	0.0037		0.0090	
12/14/21	0.0030	0.0030	0.0028	0.0028	0.0033	0.0050	0.0070
01/11/22	0.025		0.0021	0.0021		0.040	
01/18/22	0.025	0.025	0.0024	0.0024	0.0023	0.045	0.043
02/01/22	0.025		0.0028	0.0028		0.049	
02/08/22	0.025	0.025	0.010	0.010	0.0064	0.025	0.037
03/08/22	0.0030		0.0050	0.0050		0.0070	
04/12/22	0.025		0.0051	0.0051		0.025	
04/25/22	0.025	0.025	0.0045	0.0045	0.0048	0.025	0.025
05/03/22	0.025		0.0092	0.0092		0.025	
05/17/22	0.025	0.025	0.0050	0.0050	0.0071	0.025	0.025
06/01/22	0.028		0.0029	0.0029		0.044	
06/07/22	0.025	0.027	0.0030	0.0030	0.0030	0.025	0.035
07/06/22	0.025		0.0026	0.0026		0.025	
07/12/22	0.025	0.025	0.0047	0.0047	0.0037	0.039	0.032
08/02/22	0.0030		0.0064	0.0064		0.017	
08/09/22	0.0030	0.0030	0.0073	0.0073	0.0069	0.018	0.018
09/15/22	0.0030		0.0072	0.0072		0.011	
09/22/22	0.0030	0.0030	0.0021	0.0021	0.0047	0.0030	0.0070
10/04/22	0.0025		0.010	0.010		0.0025	
10/13/22	0.0025	0.0025	0.0044	0.0044	0.0070	0.0025	0.0025
11/01/22	0.0025		0.0068	0.0068		0.0055	
11/08/22	0.0025	0.0025	0.0062	0.0062	0.0065	0.0025	0.0040
12/06/22	0.0025		0.0069	0.0069		0.0025	
12/13/22	0.0025	0.0025	0.0037	0.0037	0.0053	0.0025	0.0025
01/03/23	0.0067		0.024	0.024		0.0057	
01/10/23	0.0025	0.0046	0.0053	0.0053	0.015	0.0025	0.0041
02/07/23	0.0025		0.0024	0.0024		0.0050	
02/14/23	0.0025	0.0025	0.0034	0.0034	0.0029	0.0072	0.0061
03/14/23	0.025		0.0066	0.0066		0.025	
03/21/23	0.025	0.025	0.0068	0.0068	0.0067	0.025	0.025
04/18/23	0.0025		0.0063	0.0063		0.0025	
04/25/23	0.0025	0.0025	0.0078	0.0078	0.0071	0.0025	0.003
05/02/23	0.025		0.0071	0.0071		0.025	
05/09/23	0.0025	0.014	0.0069	0.0069	0.0070	0.0025	0.014
06/06/23	0.0025		0.0039	0.0039		0.0058	
06/13/23	0.025	0.014	0.0054	0.0054	0.0047	0.068	0.037

Date	Nickel (mg/l)		Selenium (mg/l)			Zinc (mg/l)		
	Daily	Monthly Average	Daily	Adjusted Daily	Monthly Average	Daily	Monthly Average	
07/05/23	0.025		0.010	0.010		0.025		
07/18/23	0.025	0.025	0.012	0.012	0.011	0.025	0.025	
08/01/23	0.025		0.0077	0.0077		0.025		
08/08/23	0.025	0.025	0.011	0.011	0.0094	0.025	0.025	
09/05/23	0.025		0.0066	0.0066		0.025		
09/19/23	0.027	0.026	0.0047	0.0047	0.0057	0.053	0.039	
10/03/23	0.025		0.0060	0.0060		0.025		
10/17/23	0.0027	0.014	0.0072	0.0072	0.0066	0.011	0.018	
11/07/23	0.0025		0.013	0.013		0.0079		
11/14/23	0.0026	0.0026	0.0052	0.0052	0.0091	0.0091	0.0085	
12/05/23	0.0025		0.0060	0.0060		0.012		
12/12/23	0.0025	0.0025	0.0073	0.0073	0.0067	0.0090	0.011	
01/02/24	0.0040		0.0051	0.0051		0.016		
01/11/24	0.0025	0.0033	0.011	0.011	0.0081	0.039	0.028	
02/06/24	0.0010		0.0050	0.0050		0.020		
02/13/24	0.0010	0.0010	0.0050	0.0050	0.0050	0.020	0.020	
03/05/24	0.0010		0.0040	0.0040		0.020		
03/12/24	0.0010	0.0010	0.0040	0.0040	0.0040	0.020	0.020	
04/02/24	0.0010		0.0030	0.0030		0.020		
04/23/24	0.0020	0.0015	0.0040	0.0040	0.0035	0.006	0.013	
05/07/24	0.0020		0.0040	0.0040		0.020		
05/14/24	0.0010	0.0015	0.0040	0.0040	0.0040	0.020	0.020	
06/04/24	0.0020		0.0080	0.0080		0.020		
06/11/24	0.0010	0.0015	0.0050	0.0050	0.0065	0.020	0.020	
07/02/24	0.0010		0.0030	0.0030		0.020		
07/09/24	0.0010	0.0010	0.0040	0.0040	0.0035	0.020	0.020	
08/20/24	0.0010		0.0040	0.0040		0.020		
08/27/24	0.010	0.0055	0.0030	0.0030	0.0035	0.20	0.11	
09/03/24	0.0020		0.0060	0.0060		0.020		
09/10/24	0.0020	0.0020	0.0030	0.0030	0.0045	0.020	0.020	
10/01/24	0.0010		0.0060	0.0060		0.020		
10/08/24	0.0010	0.0010	0.0050	0.0050	0.0055	0.020	0.020	
11/05/24	0.0020		0.0040	0.0040		0.020		
11/12/24	0.0020	0.0020	0.0040	0.0040	0.0040	0.020	0.020	
12/03/24	0.0020		0.0040	0.0040		0.020		
12/10/24	0.016	0.0090	0.083	*		0.020	0.020	
Outlier Analysis	mean	0.013	0.0070	0.0061		0.026		
	std	0.023	0.0093	0.0042		0.038		
	mean + 3std	0.082	0.035	0.019		0.14		
Reasonable Potential Analysis	n	85	42	85	84	41	85	42
	CV	1.7	1.4	1.3	0.7	0.5	1.5	1.1
	max	0.20	0.11	0.083	0.029	0.017	0.30	0.17

*Data point removed as an outlier based on information included with December 26, 2024 Noncompliance Report.

ATTACHMENT 8-5
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 010)

Date	Boron (mg/l)		Chloride (mg/l)		Free Cyanide (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/11/21	2.9		54		0.0031	
06/17/21	7.3	5.1	91	73	0.0051	0.0041
07/08/21	3.2		100		0.0035	
07/15/21	3.5	3.4	53	77	0.0035	0.0035
08/05/21	0.30		69		0.0035	
08/12/21	3.2	1.8	66	68	0.0035	0.0035
09/09/21	3.8		74		0.0047	
09/28/21	21	12	220	147	0.0095	0.0071
10/07/21	11		150		0.0061	
10/14/21	10		140		0.0035	
10/28/21	5.5	8.8	--	145	--	0.0048
11/09/21	5.7		110		0.0043	
11/16/21	4.7	5.2	100	105	0.0035	0.0039
12/07/21	4.1		58		0.0035	
12/14/21	5.6	4.9	77	68	0.0035	0.0035
01/11/22	5.7		44		0.0060	
01/18/22	4.4	5.1	70	57	0.0035	0.0048
02/01/22	1.5		43		0.0052	
02/08/22	9.4	5.5	130	87	0.0096	0.0074
03/08/22	3.8		47		0.0047	
04/12/22	3.6		72		0.0053	
04/25/22	4.4	4.0	65	69	0.0056	0.0055
05/03/22	5.1		85		0.011	
05/17/22	4.2	4.7	72	79	0.0054	0.0082
06/01/22	4.4		53		0.0035	
06/07/22	3.4	3.9	60	57	0.0035	0.0035
07/06/22	4.5		78		0.0035	
07/12/22	5.2	4.9	86	82	0.0035	0.0035
08/02/22	3.5		48		0.018	
08/09/22	4.2	3.9	63	56	0.0051	0.012
09/15/22	7.0		110		0.0048	
09/22/22	3.2	5.1	81	96	0.0035	0.0042
10/04/22	4.2		90		0.0044	
10/13/22	3.5	3.9	87	89	0.0035	0.0040
11/01/22	3.5		91		0.0053	
11/08/22	4.0	3.8	94	93	0.0030	0.0042
12/06/22	3.8		92		0.0041	
12/13/22	3.9	3.9	83	88	0.0039	0.0040
01/03/23	22		240		0.0041	
01/10/23	4.9	13	85	163	0.0030	0.004
02/07/23	4.2		77		0.0036	
02/14/23	4.8	4.5	63	70	0.0080	0.0058
03/14/23	4.7		61		0.0030	
03/21/23	4.3	4.5	64	63	0.00056	0.0018
04/18/23	0.41		60		0.0030	
04/25/23	0.38	0.40	57	59	0.0045	0.0038
05/02/23	2.9		60		0.0045	
05/09/23	2.7	2.8	56	58	0.0030	0.0038
06/06/23	5.0		75		0.0046	

Date	Boron (mg/l)		Chloride (mg/l)		Free Cyanide (mg/l)	
	Daily	Monthly Average	Daily	Monthly Average	Daily	Monthly Average
06/13/23	0.34	2.7	84	80	0.0047	0.0047
07/05/23	6.8		66		0.0059	
07/18/23	3.4	5.1	81	74	0.0047	0.005
08/01/23	3.5		87		0.0030	
08/08/23	3.0	3.3	83	85	0.0040	0.0035
09/05/23	4.4		100		0.0041	
09/19/23	3.2	3.8	94	97	0.0030	0.0036
10/03/23	4.6		100		0.0030	
10/17/23	6.8	5.7	110	105	0.0030	0.0030
11/07/23	6.7		110		0.0030	
11/14/23	8.1	7.4	130	120	0.0030	0.0030
12/05/23	4.7		94		0.0030	
12/12/23	6.3	5.5	110	102	0.0030	0.0030
01/02/24	3.9		87		0.0030	
01/11/24	4.1	4.0	79	83	0.0030	0.0030
02/06/24	3.9		74		0.0050	
02/13/24	4.3	4.1	86	80	0.00050	0.0028
03/05/24	4.1		76		0.0030	
03/12/24	4.4	4.2	73	74	0.0030	0.0030
04/02/24	3.5		79		0.0030	
04/23/24	5.4	4.5	77	78	0.0040	0.0035
05/07/24	4.8		72		0.0030	
05/14/24	4.3	4.6	71	72	0.0030	0.0030
06/04/24	5.5		75		0.0030	
06/11/24	5.1	5.3	79	77	0.0030	0.0030
07/02/24	3.8		79		0.0030	
07/09/24	3.8	3.8	77	78	0.0030	0.0030
08/20/24	4.0		80		0.0030	
08/27/24	4.2	4.1	138	109	0.0030	0.0030
09/03/24	2.8		60		0.0030	
09/10/24	3.9	3.3	185	122	0.0030	0.0030
10/01/24	3.3		63		0.0030	
10/08/24	3.9	3.6	77	70	0.0030	0.0030
11/05/24	2.7		88		0.0030	
11/12/24	2.4	2.5	65	76	0.0030	0.0030
12/03/24	3.6		74		0.0030	
12/10/24	38.6	21	276	175	0.0030	0.0030
Outlier Analysis	mean	5.1	88		0.0041	
	std	4.8	39		0.0022	
	mean + 3std	20	204		0.011	
Reasonable Potential Analysis	n	86	42	85	42	
	CV	0.9	0.7	0.4	0.3	
	max	38.6	21.1	276	175	
	50th %			79		

ATTACHMENT 8-6
Effluent Data for AESI Petersburg (IN0002887) Outfall
007 (Outfall 010)

Date	Fluoride (mg/l)		Sulfate (mg/l)		Date	Mercury (ng/l)	
	Daily	Monthly Average	Daily	Monthly Average		Daily	Monthly Average
06/11/21	0.33		1100		06/15/21	5.0	5.0
06/17/21	0.028	0.18	1309	1205	08/05/21	5.0	5.0
07/08/21	0.45		470		10/07/21	5.0	5.0
07/15/21	0.56	0.51	1000	735	12/10/21	5.0	5.0
08/05/21	0.56		1300		02/08/22	5.0	5.0
08/12/21	0.56	0.56	1300	1300	04/12/22	7.61	7.61
09/09/21	0.56		1300		06/07/22	5.56	5.56
09/28/21	1.3	0.93	1500	1400	08/02/22	6.0	6.0
10/07/21	0.56		1400		10/13/22	12.5	
10/14/21	0.56	0.56	1500	1450	10/27/22	5.0	8.8
11/09/21	0.47		1300		12/06/22	5.0	5.0
11/16/21	0.56	0.52	1400	1350	02/08/23	5.0	5.0
12/07/21	0.56		760		04/18/23	5.0	5.0
12/14/21	0.54	0.55	1100	930	06/06/23	5.0	5.0
01/11/22	0.44		810		08/01/23	5.0	5.0
01/18/22	1.0	0.72	1100	955	10/03/23	5.0	5.0
02/01/22	1.0		260		12/05/23	5.0	5.0
02/08/22	1.0	1.0	1100	680	02/13/24	1.2	1.2
03/08/22	0.40		600		04/02/24	13.9	
04/12/22	0.50		1100		04/09/24	2.1	8.0
04/25/22	0.50	0.50	1000	1050	06/04/24	1.3	1.3
05/03/22	0.50		990		08/20/24	2.5	2.5
05/17/22	1.3	0.90	1100	1045	12/03/24	1.6	1.6
06/01/22	1.2		920		Outlier Analysis	mean	5.2
06/07/22	1.3	1.25	980	950		std	3.0
07/06/22	1.6		1300		Reasonable Potential Analysis	mean + 3std	14.2
07/12/22	1.6	1.6	1200	1250		n	23
08/02/22	0.42		730			CV	0.6
08/09/22	1.7	1.1	900	815		max	13.9
09/15/22	1.8		1200				8.8
09/22/22	1.1	1.45	1200	1200			
10/04/22	1.1		1300				
10/13/22	1.1	1.1	1300	1300			
11/01/22	1.1		1200				
11/08/22	1.1	1.1	1300	1250			
12/06/22	1.1		1300				
12/13/22	1.1	1.1	1200	1250			
01/03/23	1.1		1100				
01/10/23	1.1	1.1	1100	1100			
02/07/23	1.5		1100				
02/14/23	1.5	1.5	840	970			
03/14/23	1.1		860				
03/21/23	1.1	1.1	960	910			
04/18/23	1.1		980				
04/25/23	1.1	1.1	1000	990			
05/02/23	1.1		1100				
05/09/23	1.1	1.1	1000	1050			
06/06/23	1.1		1200				
06/13/23	1.1	1.1	1200	1200			
07/05/23	1.1		560				
07/18/23	1.1	1.1	880	720			
08/01/23	1.1		1200				

Date	Fluoride (mg/l)		Sulfate (mg/l)		Date	Mercury (ng/l)	
	Daily	Monthly Average	Daily	Monthly Average		Daily	Monthly Average
08/08/23	1.1	1.1	950	1075			
09/05/23	1.1		1200				
09/19/23	1.1	1.1	1400	1300			
10/03/23	1.1		1200				
10/17/23	1.1	1.1	1300	1250			
11/07/23	1.1		1200				
11/14/23	1.5	1.3	1300	1250			
12/05/23	1.5		1300				
12/12/23	0.50	1.0	1300	1300			
01/02/24	1.5		1300				
01/11/24	1.5	1.5	1100	1200			
02/06/24	0.34		1390				
02/13/24	0.20	0.27	1310	1350			
03/05/24	0.27		1230				
03/12/24	0.45	0.36	1100	1165			
04/02/24	0.27		1270				
04/23/24	0.49	0.38	1270	1270			
05/07/24	0.34		1060				
05/14/24	0.39	0.37	1070	1065			
06/04/24	0.51		1020				
06/11/24	0.46	0.49	1180	1100			
07/02/24	0.31		1170				
07/09/24	0.30		2410				
07/30/24	--	0.31	1230	1603			
08/20/24	0.38		2510				
08/27/24	0.28	0.33	2160	2335			
09/03/24	0.2		730				
09/10/24	0.43	0.32	2200	1465			
10/01/24	0.40		818				
10/08/24	0.47	0.44	2310	1564			
11/05/24	0.30		707				
11/12/24	0.43	0.37	838	773			
12/03/24	0.31		1000				
12/10/24	4.32	2.32	1700	1350			
Outlier Analysis	mean	0.87	1176				
	std	0.58	371				
	mean + 3std	2.6	2289				
Reasonable Potential Analysis	n	85	42	86	42		
	CV	0.7	0.5	0.3	0.2		
	max	4.32	2.32	2510	2335		
	50th %		1190				

ATTACHMENT 9

Reasonable Potential Statistical Procedure for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

Facility Name: AESI Petersburg Generating Station NPDES Number: IN0002887 WLA Number: 002836 WLA Report Date: December 2, 2025 Outfall Number: 010 Receiving Water: White River		Monthly Average Determination							Daily Maximum Determination						
Parameters	Reasonable Potential to Exceed? (Yes or No)*	Maximum Monthly Average (ug/l)	Number of Monthly Averages	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?	Maximum Daily Sample (ug/l)	Number of Daily Samples	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?
Arsenic	No	32	42	0.3	1	32	390	No	36	85	0.4	0.9	32	680	No
Cadmium	No	1.5	42	1.1	1.2	1.8	4.8	No	2.8	85	1.3	0.8	2.2	8.3	No
Total Chromium	No	33	42	1.1	1.2	40	4000	No	60	85	1.3	0.8	48	7000	No
Copper	No	13	42	1.2	1.2	16	44	No	21	85	1.4	0.8	17	75	No
Iron	No	540	42	0.6	1.1	590	3200	No	900	85	0.8	0.9	810	5500	No
Lead	No	2.8	42	1	1.1	3.1	260	No	5	85	1.2	0.8	4	450	No
Manganese	No	1200	42	0.5	1.1	1300	9900	No	1500	85	0.6	0.9	1400	17000	No
Mercury	No	0.0088	21	0.4	1.2	0.011	0.012	No	0.0139	23	0.6	1.3	0.018	0.02	No
Nickel	No	110	42	1.4	1.2	130	1100	No	200	85	1.7	0.8	160	1800	No
Selenium (lotic)	No	17	41	0.5	1.1	19	110	No	29	84	0.7	0.9	26	260	No
Zinc	No	170	42	1.1	1.2	200	270	No	300	85	1.5	0.8	240	470	No
Total Ammonia (as N)															
Summer	No	1500	27	1	1.4	2100	14000	No	2500	54	1.2	1	2500	24300	No
Winter	No	590	15	0.5	1.4	830	14000	No	980	31	0.7	1.2	1200	24300	No
Boron	No	21100	42	0.7	1.1	23000	47000	No	38600	86	0.9	0.9	35000	82000	No
Chloride	No	175000	42	0.3	1	180000	760000	No	276000	85	0.4	0.9	250000	1300000	No
Cyanide, Free	No	12	42	0.4	1.1	13	25	No	18	85	0.5	0.9	16	44	No
Fluoride	No	2320	42	0.5	1.1	2600	18000	No	4320	85	0.7	0.9	3900	31000	No
Sulfate	No	2335000	42	0.2	1	2300000	55000000	No	2510000	86	0.3	0.9	2300000	95000000	No

* Reasonable Potential to Exceed:

- 1) "Yes I" means that a projected effluent quality (PEQ) exceeded a preliminary effluent limitation (PEL) based on a Tier I criterion.
- 2) "Yes II" means that a PEQ exceeded a PEL based on a Tier II criterion.
- 3) "Yes SSC" means that a PEQ exceeded a PEL based on a site-specific criterion.
- 4) "No" means that a PEQ did not exceed a PEL.
- 5) "Evaluate Criteria" means that a PEQ exceeded a PEL based on a screening value.

ATTACHMENT 10

Reasonable Potential Statistical Procedure for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

Facility Name: AESI Petersburg Generating Station NPDES Number: IN0002887 WLA Number: 002836 WLA Report Date: December 2, 2025 Outfall Number: 007 Receiving Water: Lick Creek		Monthly Average Determination							Daily Maximum Determination						
Parameters	Reasonable Potential to Exceed? (Yes or No)*	Maximum Monthly Average (ug/l)	Number of Monthly Averages	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?	Maximum Daily Sample (ug/l)	Number of Daily Samples	CV	MF	PEQ (ug/l)	PEL (ug/l)	PEQ > PEL?
Arsenic	No	32	42	0.3	1	32	470	No	36	85	0.4	0.9	32	680	No
Cadmium	No	1.5	42	1.1	1.2	1.8	5.7	No	2.8	85	1.3	0.8	2.2	8.3	No
Total Chromium	No	33	42	1.1	1.2	40	4800	No	60	85	1.3	0.8	48	7000	No
Copper	No	13	42	1.2	1.2	16	52	No	21	85	1.4	0.8	17	75	No
Iron	No	540	42	0.6	1.1	590	3800	No	900	85	0.8	0.9	810	5500	No
Lead	No	2.8	42	1	1.1	3.1	190	No	5	85	1.2	0.8	4	450	No
Manganese	No	1200	42	0.5	1.1	1300	12000	No	1500	85	0.6	0.9	1400	17000	No
Mercury	No	0.0088	21	0.4	1.2	0.011	0.012	No	0.0139	23	0.6	1.3	0.018	0.02	No
Nickel	No	110	42	1.4	1.2	130	1300	No	200	85	1.7	0.8	160	1800	No
Selenium (lotic)	No	17	41	0.5	1.1	19	44	No	29	84	0.7	0.9	26	64	No
Zinc	No	170	42	1.1	1.2	200	320	No	300	85	1.5	0.8	240	470	No
Total Ammonia (as N)															
Summer	No	1500	27	1	1.4	2100	16600	No	2500	54	1.2	1	2500	24300	No
Winter	No	590	15	0.5	1.4	830	16600	No	980	31	0.7	1.2	1200	24300	No
Boron	No	21100	42	0.7	1.1	23000	56000	No	38600	86	0.9	0.9	35000	82000	No
Chloride	No	175000	42	0.3	1	180000	710000	No	276000	85	0.4	0.9	250000	1000000	No
Cyanide, Free	No	12	42	0.4	1.1	13	30	No	18	85	0.5	0.9	16	44	No
Fluoride	No	2320	42	0.5	1.1	2600	21000	No	4320	85	0.7	0.9	3900	31000	No
Sulfate	No	2335000	42	0.2	1	2300000	3500000	No	2510000	86	0.3	0.9	2300000	5100000	No

* Reasonable Potential to Exceed:

- 1) "Yes I" means that a projected effluent quality (PEQ) exceeded a preliminary effluent limitation (PEL) based on a Tier I criterion.
- 2) "Yes II" means that a PEQ exceeded a PEL based on a Tier II criterion.
- 3) "Yes SSC" means that a PEQ exceeded a PEL based on a site-specific criterion.
- 4) "No" means that a PEQ did not exceed a PEL.
- 5) "Evaluate Criteria" means that a PEQ exceeded a PEL based on a screening value.

ATTACHMENT 11

Calculation of Preliminary Effluent Limitations for Discharges in the Non-Great Lakes System (Excluding Discharges to the Ohio River)

General Information	
Facility Name:	AESI Petersburg Generating Station
County:	Pike
NPDES Number:	IN0002887
WLA Number:	002836
WLA Report Date:	December 2, 2025
Outfall:	009
Receiving Water:	White River

Receiving Water Questions (Yes or No)	
Acute Mixing Zone Allowed?	No
Public Water System (PWS) Intake Downstream?	No
Industrial Water Supply (IWS) Intake Downstream?	No
Interstate Wabash River Discharge?	No
Put-and-Take Trout Fishing?	No
Fish Early Life Stages Present?	Yes

Effluent Flow	=	7.0 mgd
----------------------	---	---------

Receiving Stream Design Flows	
Q1,10 (Outfall)	= 791 cfs
Q7,10 (Outfall)	= 837 cfs
Q7,10 (Public Water System Intake)	= cfs
Q7,10 (Industrial Water Supply Intake)	= cfs
Q30,10 (Outfall)	= 925 cfs
Q50 (Outfall)	= 7020 cfs
Q50 (Public Water System Intake)	= cfs

Ambient Downstream Water Quality Characteristics	
Hardness (50th percentile)	= 223 mg/l
Chloride (50th percentile)	= mg/l
Sulfate (50th percentile)	= mg/l
pH (50th percentile)	= s.u.
Acute Ammonia-N	
Summer pH (75th percentile)	= s.u.
Winter pH (75th percentile)	= s.u.
Chronic Ammonia-N	
Summer Temperature (75th percentile)	= C
Summer pH (75th percentile)	= s.u.
Winter Temperature (75th percentile)	= C
Winter pH (75th percentile)	= s.u.

Metals Translators (dissolved to total recoverable)		
	Acute	Chronic
Arsenic	1.000	1.000
Cadmium	0.910	0.875
Chromium III	0.316	0.860
Copper	0.960	0.960
Lead	0.674	0.674
Nickel	0.998	0.997
Selenium	--	1.000
Silver	0.85	--
Zinc	0.978	0.986

Mixing Zone Dilution			
Dilution Factor (for acute mixing zone)	=		
	Dilution Fraction	Flow	Location
Chronic Aquatic Life (Except Ammonia and Selenium)	= 50%	Q7,10	Outfall
Chronic Aquatic Life (Ammonia and Selenium)	= 50%	Q30,10	Outfall
Chronic WET	= 25%	Q7,10	Outfall
Human Noncancer Drinking Water	= 100%	Q7,10	PWS Intake
Human Noncancer Nondrinking Water	= 50%	Q7,10	Outfall
Human Cancer Drinking Water	= 100%	Q50	PWS Intake
Human Cancer Nondrinking Water	= 25%	Q50	Outfall
Public Water Supply	= 100%	Q7,10	PWS Intake
Industrial Water Supply	= 100%	Q7,10	IWS Intake

											Indiana Water Quality Criteria for the Non-Great Lakes System (ug/l) [2]							Preliminary Effluent Limitations [3]								
						A	B	C	D		E	F	G													
						Aquatic Life Criteria		Human Health Noncancer Criteria			Human Health Cancer Criteria		Add. PWS Criteria													
						Acute (AAC)	Chronic (CAC)	Drinking (HNC-D)	Nondrinking (HNC-N)		Drinking (HCC-D)	Nondrinking (HCC-N)		(PWS)												
Source of Criteria [1]						Bckgrnd (Outfall) (ug/l)	Bckgrnd (Intake) (ug/l)	Remove Mixing Zone? (Yes or Blank)	Samples/ Month	CV	Facility Specific CV? (Yes or No)	CAS Number	Parameters								Concentration (ug/l)		Mass (lbs/day)		Criteria Type [4]	Basis
A	B	C	D	E	F	G															Average	Maximum	Average	Maximum		
1	1	8	8			8	0.88		2	0.6	No	16065831	Chromium (III)[5][7]	1099	143	140	14000			100	4014.43	6955.03	234.50	406.28	Tier I	AAC
1	1	8	8				0		2	0.6	No	18540299	Chromium (VI)[5]	15.71	10.58	230	25000				18.14	31.42	1.06	1.84	Tier I	AAC
											No	7440473	Total Chromium								4000	7000	240	410	Tier I	AAC
1	1	1	8				2.9		2	0.6	No	7440508	Copper[5][7]	36.23	22.52	1300	56000				44	75	2.6	4.4	Tier I	AAC
7	7						1289		2	0.6	No	7439896	Iron	2744	2495						3200	5500	190	320	SSC	AAC
1	1	1	1			8		Yes	1	0.6	No	7439976	Mercury[8]	2.4	0.012	0.14	0.15			2	0.012	0.02	0.0007	0.0012	Tier I	CAC[10]
1	1	1	1				5.6		2	0.6	No	7440666	Zinc[5][7]	231.19	233.08	7400	26000				270	470	16	27	Tier I	AAC
													Whole Effluent Toxicity (WET)													
9													Acute (TUa) without Mixing Zone	1.0								1.0				
	9						0						Chronic (TUc)		1.0						20.3					

[1] Source of Criteria

- 1) Indiana numeric water quality criterion in 327 IAC 2-1-6(a)(3), Table 6-1, 2-1-6(a)(4), Table 6-1a, 2-1-6(a)(6), 2-1-6(a)(7), Table 6-4 or in 2-1-6(e).
- 2) "Must not exceed" (MNE) criterion in 327 IAC 2-1-6(a)(8), or 2-1-6(a)(9). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
- 3) Industrial water supply (IWS) criterion in 327 IAC 2-1-6(f). This criterion is treated as a 4-day average criterion and is implemented in the same manner as the chronic aquatic life criterion.
- 4) Acute (1-hour average) and chronic (30-day average) criteria for total ammonia nitrogen in "1999 Update of Ambient Water Quality Criteria for Ammonia," EPA-822-R-99-014, December 1999.
- 5) Tier I criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is available, or using the methodology in 327 IAC 2-1-8.4, 327 IAC 2-1-8.5 or 327 IAC 2-1-8.6.
- 6) Tier II criterion derived using the methodology in 327 IAC 2-1-8.2 or 327 IAC 2-1-8.3 when the required data set is not available.
- 7) Site-specific water quality criterion (SSC) in 327 IAC 2-1-8.9, Table 8.9-1 or developed under 327 IAC 2-1-8.9.
- 8) Screening value (SV).
- 9) Numeric interpretation of narrative criterion for toxicity using U.S. EPA recommended water quality criteria for whole effluent toxicity (WET).
- 10) U.S. EPA national recommended water quality criterion under Section 304(a) of the Clean Water Act (CWA).

- 2) Except as noted, aquatic life criteria and screening values for all metals are in the form of total recoverable metal.
- Human health criteria and screening values and public water supply screening values for all metals are in the form of total recoverable metal.
- 3) The preliminary effluent limitations (PELs) for metals are in the form of total recoverable metal (with the exception of Chromium (VI) which is in the form of dissolved metal).
- 4) See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the type and source of criteria.
- 5) Aquatic life criteria and screening values for the above-noted metals are in the form of dissolved metal.
- 6) The above-noted substances are probable or known human carcinogens.
- 7) The above-noted substances have a criterion that is a function of an ambient downstream water quality characteristic. See the table "Indiana Water Quality Criteria for the Non-Great Lakes System" for information on the criterion equation.
- 8) The above-noted substances are bioaccumulative chemicals of concern (BCCs). Beginning January 1, 2004, the water quality criteria for a BCC shall be applied directly to the undiluted discharge for all discharges of a BCC.

To apply the water quality criteria for a BCC directly to the undiluted discharge, enter "Yes" in the "Remove Mixing Zone?" column.

- 9) Limits based on screening values (as indicated by SV) ARE NOT to be used as water quality-based effluent limitations. These are solely to be used as preliminary effluent limitations.
 - 10) The monthly average PEL was set equal to the most stringent WLA because the calculated monthly average PEL exceeded the most stringent WLA and a facility-specific CV was not determined.
 - 11) The ambient downstream water quality characteristic must be entered for both chloride and sulfate and it cannot exceed the applicable chronic aquatic life or "must not exceed" criterion for the substance.
- Preliminary effluent limitations (PELs) for chloride and sulfate shall not be used to establish water quality-based effluent limitations that do not ensure the water quality criteria for both substances are achieved in the receiving water.