

**AUTHORIZATION TO DISCHARGE WASTEWATER UNDER  
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND  
THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT**

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.), and the Clean Water Act (33 U.S.C. § 1251 et seq.),

Exploratory Ventures, LLC

is authorized to discharge treated process wastewater, stormwater runoff, dust suppression water, and quenching water from slag yard from a facility located as follows: 1000 East County Road 860, Osceola, AR 72370, in Mississippi County.

Facility Coordinates: Latitude: 35° 37' 08.43" N; Longitude: 90° 00' 00.26" W

Discharge from Outfalls EV201 and EV202 is to receiving waters named:

the Mississippi River in Segment 6C of the Mississippi River Basin.

The outfalls are located at the following coordinates:

Outfall EV201: Latitude: 35° 39' 04.01" N; Longitude: 89° 54' 48.40" W

Outfall EV202: Latitude: 35° 39' 04.01" N; Longitude: 89° 54' 48.38" W

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit. Per Part III.D.10, the permittee must re-apply 180 days prior to the expiration date below for permit coverage to continue beyond the expiration date.

Effective Date: September 1, 2023  
Expiration Date: August 31, 2028

08/17/2023

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Alan J. York  
Associate Director, Office of Water Quality  
Arkansas Department of Energy and Environment  
Division of Environmental Quality

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Issue Date

**PART I**  
**PERMIT REQUIREMENTS**

**SECTION A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:** OUTFALL EV201 - treated process wastewater from the following sources: direct reduced iron unit, RH degasser units, continuous casting mill and hot strip mill (collectively known as endless strip process), pickling and tandem mill, other cold mill operations, pickling and galvanizing line pickling operations, alkaline cleaning operations, galvanizing line, hot dip galvanizing unit, push-pull pickling line, skin pass mill, other coating operations, sand filter backwash, contact cooling water systems, and non-contact cooling water systems.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall EV201. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.		
Flow	N/A	N/A	Report, MGD	Report, MGD	once/day	totalizing meter
Total Suspended Solids (TSS)	735.4	1,847.4	Report	Report	once/week	composite
Oil and Grease (O&G)	104.3	156.4	10	15	once/week	grab
Chromium (VI) <sup>1</sup>	0.1	0.3	Report <sup>2</sup>	Report <sup>2</sup>	once/week	composite
Chromium, Total Recoverable <sup>1</sup>	0.4	1.0	Report <sup>2</sup>	Report <sup>2</sup>	once/week	composite
Lead, Total Recoverable <sup>1</sup>	1.7	5.1	Report <sup>2</sup>	Report <sup>2</sup>	once/week	composite
Nickel, Total Recoverable <sup>1</sup>	0.3	0.9	Report <sup>2</sup>	Report <sup>2</sup>	once/week	composite
Zinc, Total Recoverable <sup>1</sup>	2.4	7.2	Report <sup>2</sup>	Report <sup>2</sup>	once/week	composite
Naphthalene <sup>1</sup>	0.05	0.1	Report <sup>2</sup>	Report <sup>2</sup>	once/week	grab
Tetrachloroethylene <sup>1</sup>	0.07	0.1	Report <sup>2</sup>	Report <sup>2</sup>	once/week	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/week	grab
Acute WET Testing <sup>3,4</sup>						
<b><i>Pimephales promelas</i> (Acute)<sup>3</sup></b> Pass/Fail Lethality (48-Hr NOEC) TEM6C Survival (48-Hr NOEC) TOM6C Coefficient of Variation (48-Hr NOEC) TQM6C Pass/Fail Retest 1 (48-Hr NOEC) 22418 Pass/Fail Retest 2 (48-Hr NOEC) 22419 Pass/Fail Retest 3 (48-Hr NOEC) 51444	N/A		<u>48-Hour Minimum</u> Report (Pass=0/Fail=1) Report % Report % Report (Pass=0/Fail=1) Report (Pass=0/Fail=1) Report (Pass=0/Fail=1)		once/quarter once/quarter once/quarter once/month <sup>4</sup> once/month <sup>4</sup> once/month <sup>4</sup>	composite composite composite composite composite composite
<b><i>Daphnia pulex</i> (Acute)<sup>3</sup></b> Pass/Fail Lethality (48-Hr NOEC) TEM3D Survival (48-Hr NOEC) TOM3D Coefficient of Variation (48-Hr NOEC) TQM3D Pass/Fail Retest 1 (48-Hr NOEC) 22415 Pass/Fail Retest 2 (48-Hr NOEC) 22416 Pass/Fail Retest 3 (48-Hr NOEC) 51443	N/A		<u>48-Hour Minimum</u> Report (Pass=0/Fail=1) Report % Report % Report (Pass=0/Fail=1) Report (Pass=0/Fail=1) Report (Pass=0/Fail=1)		once/quarter once/quarter once/quarter once/month <sup>4</sup> once/month <sup>4</sup> once/month <sup>4</sup>	composite composite composite composite composite composite

1. See Part II.5 (Metals and Other Toxic Compounds Requirements).

2. Samples for metals and other toxic compounds shall be reported in units of micrograms per liter (µg/l).

3. See Part II.6 (WET Testing Requirements).

4. **CONDITIONAL REPORTING:** Use only if conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution). If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one routine toxicity test. If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under retest parameters (reported on a quarterly DMR). This condition applies to *P. promelas* and *D. pulex*.

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after the sand filtration and prior to the pipeline to Outfall EV201.

**SECTION A2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:** OUTFALL EV202 - stormwater runoff, dust suppression water, and quenching water from slag yard.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall EV202. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.		
Flow	N/A	N/A	Report, MGD	Report, MGD	two/week	totalizing meter
Total Suspended Solids (TSS)	N/A	N/A	100	150	once/quarter	grab
Oil and Grease (O&G)	N/A	N/A	10	15	once/quarter	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month	grab

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after the sedimentation pond and prior to the pipeline to Outfall EV202.

**SECTION B. PERMIT COMPLIANCE SCHEDULE**

None

## **PART II OTHER CONDITIONS**

1. The operator of this wastewater treatment facility shall hold an Advanced Industrial license from the State of Arkansas in accordance with APC&EC Rule 3.
2. In accordance with 40 C.F.R. §§ 122.62(a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.

### 3. Other Specified Monitoring Requirements

The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I Section A of the permit without a major permit modification under the following conditions:

- The monitoring and analytical instruments are consistent with accepted scientific practices.
- The requests shall be submitted in writing to the Permits Branch of the Office of Water Quality of the DEQ for use of the alternate method or instrument.
- The method and/or instrument is in compliance with 40 C.F.R. Part 136 or approved in accordance with 40 C.F.R. § 136.5.
- All associated devices are installed, calibrated, and maintained to ensure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Assurance/Quality Control (QA/QC) program.

Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period. DEQ must be notified in writing and the permittee must receive written approval from DEQ if the permittee decides to return to the original permit monitoring requirements.

4. Best Management Practices (BMPs), as defined in Part IV.7, must be implemented for the facility to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, and/or waste disposal. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.
5. The permittee may use any EPA approved method based on 40 C.F.R. Part 136 provided the minimum quantification level (MQL) for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (µg/l)
Chromium (VI) <sup>1</sup>	10
Chromium, Total Recoverable	10
Lead, Total Recoverable	0.5
Nickel, Total Recoverable	0.5
Zinc, Total Recoverable	20
Naphthalene	10
Tetrachloroethylene	10

<sup>1</sup> Chromium (VI) shall be expressed in the dissolved form, in accordance with 40 C.F.R. § 122.45(c)(3).

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 C.F.R. Part 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to DEQ, NPDES Permits Branch, a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that a site specific MDL was correctly calculated. A site specific MQL shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval by Permits Branch, the site specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

## 6. WHOLE EFFLUENT TOXICITY TESTING (48-HOUR ACUTE NOEC FRESHWATER)

It is unlawful and a violation of this permit for a permittee or his designated agent to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority (DEQ).

### A. SCOPE AND METHODOLOGY

- i. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

Applicable To Final Outfall(S)	EV201
Reported On DMR As Final Outfall	EV201
Critical Dilution (%)	0.05
Effluent Dilution Series (%)	0.02, 0.03, 0.04, 0.05, 0.07
Testing Frequency	Once/Quarter
Sample Type	“Composite Sample (defined in Paragraph B.iii)”

Test Species/Methods	40 C.F.R. §136
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*Daphnia pulex*\_acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof.

*Pimephales promelas* (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof.

- ii. The NOEC (No Observed Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.
- iii. This permit may be reopened to require WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

#### B. REQUIRED TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

Condition/Criteria	<i>Daphnia pulex</i>	<i>Pimephales promelas</i>
# of replicates per concentration	4 (minimum)	2 (minimum)
# of organisms per replicate	5 (minimum)	10 (minimum)
# of organisms per concentration	20 (minimum)	20 (minimum)
# of test concentrations per effluent	5 and a control	5 and a control
Sample Holding Time *	36 hours for first use	36 hours for first use
Test Acceptability Criteria	≥90% survival of all control organisms.	≥90% survival of all control organisms.
Coefficient of Variation **	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.

\* If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples and the minimum number of effluent portions are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent, and must meet the holding time



between collection and first use of the sample. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item C of this section.

\*\* Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%.

i. Statistical Interpretation

The statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in the appropriate method manual listed in Part II or the most recent update thereof.

ii. Dilution Water

a. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(1) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(2) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

b. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(1) a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;

(2) the test indicating receiving water toxicity has been carried out to completion,

(3) the permittee includes all test results indicating receiving water toxicity with the full report and information required; and

(4) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these

parameters will not cause toxicity in the synthetic dilution water.

iii. Samples and Composites

- a. The permittee shall collect two samples (flow-weighted composite if possible) from the outfall(s).
- b. The permittee shall collect a second sample (composite samples if possible) for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours for first use of the sample. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping, and/or storage. A holding time up to 72 hrs is allowed upon notification to DEQ of the need for additional holding time.
- c. The permittee must collect the composite samples such that the effluent samples are representative of the discharge duration, and of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

C. REPORTING

- i. The permittee shall prepare a full report of the results of all tests conducted pursuant to this part in accordance with the Report Preparation Section of the most current publication of the method manual, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report and submit them to the Agency via NetDMR. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review.
- ii. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. One set of WET data for each species is to be recorded on the DMR for each reporting period. Additional results are reported under the retest codes below.
- iii. The permittee shall submit the results of each valid toxicity test on DMR for that reporting period in accordance with Part I of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Use a no data indicator (NODI) code of 9 (not required), for months when WET retests are not required. Only results of valid tests are to be reported on the DMR.

Reporting Requirement	Parameter STORET CODE	
	<i>Daphnia pulex</i>	<i>Pimephales promelas</i>
Enter a "1" if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, otherwise enter a "0".	TEM3D	TEM6C
Report the NOEC value for survival	TOM3D	TOM6C
Report the highest (critical dilution or control) Coefficient of Variation	TQM3D	TQM6C
(If required) Retest 1 – Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0". (reported on quarterly DMR)*	22415	22418
(If required) Retest 2- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0". (reported on quarterly DMR)*	22416	22419
(If required) Retest 3- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0". (reported on quarterly DMR)*	51443	51444

\* If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period).

iv. DMR parameters

Report the following parameters on the DMR:

Scheduled DMR: TEM6C, TOM6C, TQM6C, 22418, 22419, 51444, TEM3D, TOM3D, TQM3D, 22415, 22416, and 51443.

D. MONITORING FREQUENCY REDUCTION

- i. The permittee may apply for a testing frequency reduction upon the successful completion of the first twelve consecutive quarters of testing for a test species, with no lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than once per six months for the more sensitive test species (usually the *Daphnia pulex*).
- ii. Certification - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria above. In addition, the permittee must provide a list with each test performed including test initiation date, species, and NOECs. Upon review and acceptance of this information, the agency will issue a letter of

- confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's compliance section to update the permit reporting requirements.
- iii. Failures - If any test demonstrates lethal effects at or below the critical dilution at any time during the life of this permit, three monthly retests are required. If a frequency reduction had been granted, the monitoring frequency for the affected test species reverts to once per quarter until the permit is re-issued.
  - iv. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.
  - v. For administratively continued facilities where permit renewal was held up by no fault of the permittee, the following language regarding WET testing frequency reduction applies after permit renewal:

The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing after the expiration date of the previous permit, for one or both test species, provided that all of the following conditions are met:

- a. The permittee tested quarterly upon the expiration date of that permit, and
- b. The issuance of the renewed permit was not delayed by any fault of the permittee, and
- c. No lethal effects are demonstrated at or below the critical dilution for the first four consecutive quarters of testing after the expiration date of the previous permit.

#### E. PERSISTENT TOXICITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant toxic effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent). If the initial WET test conducted fails, the permittee will conduct three retests. The purpose of retests is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result. If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

##### i. Retest

The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The three

additional tests shall be conducted monthly (one test per month) during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with the reporting requirements previously outlined and available upon request from the Agency.

ii. Requirement to Initiate a Toxicity Reduction Evaluation

If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part F of this section. The permittee shall notify DEQ in writing within 5 days of notification of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent effects at or below the critical dilution, or for failure to perform the required retests.

F. TOXICITY REDUCTION EVALUATION (TRE)

A TRE is triggered following two test failures (a failure followed by one retest failure).

- i. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE to DEQ. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE is an investigation intended to determine those actions necessary to achieve compliance with water quality based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:
- a. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, a Toxicity Identification Evaluation (TIE) and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Identification Evaluations to characterize the nature of the constituents causing toxicity, the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA 600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity"

(EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate.

- b. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified; Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where toxicity was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;
  - c. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
  - d. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- ii. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal.
  - iii. The permittee shall submit a quarterly TRE Activities Report to DEQ in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
    - a. Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
    - b. Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
    - c. Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution. A copy of the TRE Activities Report shall also be submitted to the state agency.
    - d. Any results and interpretation of any chemical specific analysis, and for any characterization, identification, and confirmation tests performed during the quarter.
    - e. Any changes to the initial TRE plan and schedule that are believed necessary.

iv. Finalizing a TRE

The permittee shall submit (to DEQ) a final report on TRE activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the final report on TRE Activities shall also be submitted to the state agency.

A TRE may be stopped if there is no toxicity at the critical dilution for a period of 12 consecutive months (with at least monthly testing) following confirmation of toxicity in the retests. The permittee would submit a final report to DEQ at that time.

- v. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 C.F.R. § 122.44(d)(1)(v).
7. This facility must obtain stormwater permit coverage under the NPDES Industrial Stormwater General Permit ARR000000 in accordance with 40 C.F.R. § 122.26(a)(1)(ii) and 40 C.F.R. § 122.26(b)(14)(i) prior to operation of the facility.
  8. There shall be no discharge of process wastewater pollutants resulting from the electric arc furnace steelmaking process to waters of the State, in accordance with 40 C.F.R. § 420.44(a).
  9. The permittee is planning construction for a new wastewater treatment system with design flow of 1.25 MGD to treat the process wastewater from steel mill operations.
    - a. Beginning on the effective date of the permit, the permittee must submit a Discharge Monitoring Report (DMR) on a monthly basis. The DMR can be marked and submitted as “Conditional Monitoring – Not Required This Period” until such time as the new treatment system is operational.
    - b. The permittee must notify the DEQ within 30 days of when the new wastewater treatment system has been completely installed and is operating.

**PART III  
STANDARD CONDITIONS**

**SECTION A – GENERAL CONDITIONS**

1. **Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Water Act and the Arkansas Water and Air Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; and/or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report (DMR) which are in excess of an effluent limitation specified in Part I shall constitute evidence of violation of such effluent limitation and of this permit.**

2. **Penalties for Violations of Permit Conditions**

The Arkansas Water and Air Pollution Control Act provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars (\$25,000) or by both such fine and imprisonment for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, not to exceed ten thousand dollars (\$10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

3. **Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

- A. Violation of any terms or conditions of this permit.
- B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
- C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
- E. Failure of the permittee to comply with the provisions of APC&EC Rule 9 (Permit fees) as required by Part III.A.11 herein.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.



#### 4. **Toxic Pollutants**

Notwithstanding Part III.A.3, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

#### 5. **Civil and Criminal Liability**

Except as provided in permit conditions for “Bypass of Treatment Facilities” (Part III.B.4), and “Upset” (Part III.B.5), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state and federal statutes or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

#### 6. **Oil and Hazardous Substance Liability**

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

#### 7. **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.

#### 8. **Property Rights**

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

## 9. **Severability**

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

## 10. **Applicable Federal, State or Local Requirements**

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable federal requirements such as endangered species, state or local statute, ordinance or regulation.

## 11. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for wastewater discharge permits as described in APC&EC Rule 9 (Rule for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions of APC&EC Rule 8.

## **SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS**

### 1. **Proper Operation and Maintenance**

- A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- B. The permittee shall provide an adequate operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.

### 2. **Need to Halt or Reduce not a Defense**

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 this permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or discharges or both until the facility is restored or an alternative method of treatment is provided.

This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. **Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment or the water receiving the discharge.

4. **Bypass of Treatment Facilities**

“Bypass” means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i).

A. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.B and 4.C.

B. Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III.D.6 (24-hour notice).

C. Prohibition of bypass

1. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:
  - (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 downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - (c) The permittee submitted notices as required by Part III.B.4.B.
2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.C(1).

## 5. Upset Conditions

- A. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.B of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- B. Conditions necessary for demonstration of upset. 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 that the permittee can identify the specific cause(s) of the upset.
  2. The permitted facility was at the time being properly operated.
  3. The permittee submitted notice of the upset as required by Part III.D.6.
  4. The permittee complied with any remedial measures required by Part III.B.3.
- C. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

## 6. Removed Substances

- A. Solids, sludges, filter backwash, or other pollutants removed in the course of 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. The Permittee must comply with all applicable state and Federal regulations governing the disposal of sludge, including but not limited to 40 C.F.R. Parts 257, 258, and 503.
- B. Any changes to the permittee's disposal practices described in the Fact Sheet, as derived from the permit application, will require at least 180 days prior notice to the Director to allow time for additional permitting. Please note that the 180 day notification requirement may be waived if additional permitting is not required for the change.

## 7. Power Failure

The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators, or retention of inadequately treated effluent.

## SECTION C – MONITORING AND RECORDS

### 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before

the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharge shall be monitored.

## 2. **Flow Measurement**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

### Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Division approved method (i.e., as allowed in the *Other Specified Monitoring Requirements* condition under Part II), the +/- 10% accuracy requirement described above is waived. This waiver is only applicable when the method used for calculation of the flow has been reviewed and approved by the Division.

## 3. **Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 C.F.R. Part 136, unless other test procedures have been specified in this permit. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to ensure accuracy of measurements and shall ensure that both calibration and maintenance activities will be conducted. An adequate analytical quality control program, including the analysis of sufficient standards, spikes, and duplicate samples to ensure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. At a minimum, spikes and duplicate samples are to be analyzed on 10% of the samples.

## 4. **Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars (\$10,000) or by both such fine and imprisonment.

## 5. **Reporting of Monitoring Results**

40 C.F.R. § 127.11(a)(1) and 40 C.F.R. § 127.16(a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory

Authorities must initially request access for a NetDMR account. Once a NetDMR account is established, access to electronic filing should use the following link <https://cdx.epa.gov>. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 C.F.R. § 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25<sup>th</sup> day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 C.F.R. Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated on the DMR.

7. **Retention of Records**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

8. **Record Contents**

Records and monitoring information shall include:

- A. The date, exact place, time and methods of sampling or measurements, and preservatives used, if any.
- B. The individual(s) who performed the sampling or measurements.
- C. The date(s) and time analyses were performed.
- D. The individual(s) who performed the analyses.
- E. The analytical techniques or methods used.
- F. The measurements and results of such analyses.

9. **Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, 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 under the conditions of this permit.
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
- D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

## **SECTION D – REPORTING REQUIREMENTS**

### **1. Planned Changes**

The Permittee shall give notice to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 C.F.R. § 122.41(l)]. Notice is required only when:

- A. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 C.F.R. § 122.29(b).
- B. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to the notification requirements under 40 C.F.R. § 122.42(b).

### **2. Anticipated Noncompliance**

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

### **3. Transfers**

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

### **4. Monitoring Reports**

Monitoring results shall be reported at the intervals and in the form specified in Part III.C.5. **Discharge Monitoring Reports must be submitted even when no discharge occurs during the reporting period.**

### **5. Compliance Schedule**

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. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

## 6. **Twenty-four Hour Report**

Please be aware that the notifications can be sent by email to [water-enforcement-report@adeq.state.ar.us](mailto:water-enforcement-report@adeq.state.ar.us) or at 501-682-0624 for immediate reporting:

- A. The permittee shall report any noncompliance which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances to the Enforcement Branch of the Office of Water Quality of DEQ. 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 the following information:
1. A description of the noncompliance and its cause.
  2. 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.
  3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- B. The following must be reported within 24 hours:
1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
  2. Any upset which exceeds any effluent limitation in the permit.
  3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit.
- C. The Director may waive the written report on a case-by-case basis if the notification has been received within 24 hours to the Enforcement Branch of the Office of Water Quality of the DEQ.

## 7. **Other Noncompliance**

The permittee shall report all instances of noncompliance not reported under Parts III.D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.6.

## 8. **Changes in Discharge of Toxic Substances for Industrial Dischargers including Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers**

The Director shall be notified as soon as the permittee knows or has reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant including those listed in 40 C.F.R. § 401.15 which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 C.F.R. § 122.42(a)(1).
- B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant including those listed in 40 C.F.R. § 401.15



which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 C.F.R. § 122.42(a)(2).

9. **Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

10. **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 apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be implemented through procedures outlined by APC&EC Rule 6.

11. **Signatory Requirements**

All applications, reports, or information submitted to the Director shall be signed and certified as follows:

A. All **permit applications** shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
  - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.
  - (b) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making 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 proprietor, respectively.

3. For a municipality, State, Federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency.

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All **reports** required by the permit and **other information** requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above.

2. The authorization specified 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).

3. The written authorization is submitted to the Director.

C. Certification. Any person signing a document under this section 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.”

## 12. **Availability of Reports**

Except for data determined to be confidential under 40 C.F.R. Part 2 and APC&EC Rule 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Environmental Quality. As required by the Rules, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

## 13. **Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject to

civil penalties specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

## PART IV DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 C.F.R. § 122.2 shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **“7-Day Average”** also known as “average weekly,” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week. The 7-Day Average for Fecal Coliform Bacteria (FCB) or *E. coli* is the geometric mean of the “daily discharges” of all effluent samples collected during a calendar week in colonies per 100 ml.
2. **“Act”** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
3. **“Administrator”** means the Administrator of the U.S. Environmental Protection Agency.
4. **“APC&EC”** means the Arkansas Pollution Control and Ecology Commission.
5. **“Applicable effluent standards and limitations”** means all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.
6. **“Applicable water quality standards”** means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APC&EC) Rule 2, as amended.
7. **“Best Management Practices (BMPs)”** are activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State. BMPs also include treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage. BMPs may include structural devices or nonstructural practices.
8. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i).
9. **“Composite sample”** is a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period.
10. **“CV”** means coefficient of variation.
11. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
  - A. **Mass Calculations:** For pollutants with limitations expressed in terms of mass, the “daily discharge” is calculated as the total mass of pollutant discharged over the sampling day.
  - B. **Concentration Calculations:** For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

12. **“Daily Maximum”** discharge limitation means the highest allowable “daily discharge” during the calendar month.
13. **“Director”** means the Director of the Division of Environmental Quality.
14. **“Dissolved oxygen limit”** shall be defined as follows:
  - A. When limited in the permit as a minimum monthly average, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month.
  - B. When limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
15. **“Division”** means the Division of Environmental Quality (**DEQ**).
16. **“E. coli”** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For *E. coli*, report the Daily Maximum as the highest “daily discharge” during the calendar month and the Monthly Average as the geometric mean of all “daily discharges” within a calendar month, in colonies per 100 ml.
17. **“Fecal Coliform Bacteria (FCB)”** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For FCB, report the Daily Maximum as the highest “daily discharge” during the calendar month and the Monthly Average as the geometric mean of all “daily discharges” within a calendar month, in colonies per 100 ml.
18. **“Grab sample”** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
19. **“Industrial User”** means a nondomestic discharger, as identified in 40 C.F.R. Part 403, introducing pollutants to a publicly owned treatment works (POTW).
20. **“Instantaneous flow measurement”** means the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.
21. **“Instantaneous Maximum”** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.
22. **“Instantaneous Minimum”** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
23. **“Monitoring and Reporting”**

When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25<sup>th</sup> of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25<sup>th</sup> of the month following the monitoring period end date.

  - A. **MONTHLY:**

is defined as a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.
  - B. **BI-MONTHLY:**

is defined as two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently.

**C. QUARTERLY:**

1. is defined as a **fixed calendar quarter** or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter. Fixed calendar quarters are: January through March, April through June, July through September, and October through December.
2. is defined as a **fixed three month period** (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter. Seasonal calendar quarters are: May through July, August through October, November through January, and February through April.

**D. SEMI-ANNUAL:**

is defined as the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months.

**E. ANNUAL or YEARLY:**

is defined as a fixed calendar year or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year. A calendar year is January through December, or any portion thereof.

24. **“Monthly Average”** means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month. For Fecal Coliform Bacteria (FCB) or *E. coli*, report the Monthly Average as the geometric mean of all “daily discharges” within a calendar month.
25. **“National Pollutant Discharge Elimination System”** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
26. **“NOEC”** means No Observed Effect Concentration.
27. **“PMSD”** means Percent Minimum Significant Difference.
28. **“POTW”** means Publicly Owned Treatment Works;
29. **“Reduction of CBOD<sub>5</sub>/BOD<sub>5</sub> and TSS in mg/l Formula”**  
[(Influent – Effluent) / Influent] × 100
30. **“Severe property damage”** means substantial physical damage to property, damage to the treatment facilities which causes 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 products.
31. **“Sewage sludge”** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.
32. **“Treatment works”** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any works, including site

acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.

**33. Units of Measure:**

“**MGD**” shall mean million gallons per day.

“**mg/l**” shall mean milligrams per liter or parts per million (ppm).

“**µg/l**” shall mean micrograms per liter or parts per billion (ppb).

“**cfs**” shall mean cubic feet per second.

“**ppm**” shall mean parts per million.

“**s.u.**” shall mean standard units.

34. “**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. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless or improper operations.

35. “**Visible sheen**” means the presence of a film or sheen upon or a discoloration of the surface of the discharge. A sheen can also be from a thin glistening layer of oil on the surface of the discharge.

36. “**Week**” means a calendar week, consisting of the 7-day period of Sunday through Saturday

37. “**Weekday**” means Monday – Friday.

## Final Fact Sheet

This Fact Sheet is for information and justification of the permit requirements only. Please note that it is not enforceable. This permitting decision is for the issuance of discharge Permit Number AR0053384 with Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) Arkansas Facility Identification Number (AFIN) 47-01073 to discharge to Waters of the State.

### 1. PERMITTING AUTHORITY

The issuing office is:

Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

### 2. APPLICANT

The applicant's mailing address is:

Exploratory Ventures, LLC  
PO Box 707  
Osceola, AR 72370

The facility address is:

Exploratory Ventures, LLC  
1000 East County Road 860  
Osceola, AR 72370

### 3. PREPARED BY

The permit was prepared by:

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### 4. PERMIT ACTIVITY

The permittee submitted a new permit application on November 9, 2022, with additional information received by April 21, 2023. The discharge permit is being issued for a 5-year term in accordance with regulations promulgated at 40 C.F.R. § 122.46(a).

The permittee is planning to install a new wastewater treatment system to treat the process



wastewater generated during the steel mill operations, and a sedimentation pond for stormwater runoff, dust suppression water, and quenching water from the slag yard. Therefore, the permittee is required to obtain a State Construction Permit and an NPDES discharge permit.

### DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

APC&EC - Arkansas Pollution Control and Ecology Commission

BAT - best available technology economically achievable

BCT - best conventional pollutant control technology

BMP - best management practice

BOD<sub>5</sub> - five-day biochemical oxygen demand

BPJ - best professional judgment

BPT - best practicable control technology currently available

CBOD<sub>5</sub> - carbonaceous biochemical oxygen demand

CD - critical dilution

C.F.R. - Code of Federal Regulations

cfs - cubic feet per second

COD - chemical oxygen demand

COE - United States Corp of Engineers

CPP - continuing planning process

CWA - Clean Water Act

DMR - discharge monitoring report

DO - dissolved oxygen

ELG - effluent limitation guidelines

EPA - United States Environmental Protection Agency

ESA - Endangered Species Act

FCB - fecal coliform bacteria

gpm - gallons per minute

MGD - million gallons per day

MQL - minimum quantification level

NAICS - North American Industry Classification System

NH<sub>3</sub>-N - ammonia nitrogen

NO<sub>3</sub> + NO<sub>2</sub>-N - nitrate + nitrite nitrogen

NPDES - National Pollutant Discharge Elimination System

O&G - oil and grease

Rule 2 - APC&EC Rule 2

Rule 6 - APC&EC Rule 6

Rule 8 - APC&EC Rule 8

Rule 9 - APC&EC Rule 9

RP - reasonable potential

SIC - standard industrial classification

TDS - total dissolved solids

TMDL - total maximum daily load

TP - total phosphorus

TRC - total residual chlorine  
TSS - total suspended solids  
UAA - use attainability analysis  
USF&WS - United States Fish and Wildlife Service  
USGS - United States Geological Survey  
WET - whole effluent toxicity  
WQMP - water quality management plan  
WQS - Water Quality standards  
WWTP - wastewater treatment plant

Compliance and Enforcement History:

No compliance or enforcement history exists since this is a new permit for this facility.

**5. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT**

This is a new permit.

**6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION**

The outfalls are located at the following coordinates based on the permit application, and confirmed with Google Earth using WGS84:

Outfall EV201: Latitude: 35° 39' 04.01" N; Longitude: 89° 54' 48.40" W

Outfall EV202: Latitude: 35° 39' 04.01" N; Longitude: 89° 54' 48.38" W

The receiving waters named:

Outfalls EV201 and EV202: the Mississippi River in Segment 6C of the Mississippi River Basin. The receiving stream with Assessment Unit AR\_08010100\_010 is a Water of the State classified for primary and secondary contact recreation; raw water source for domestic (public and private), industrial, and agricultural water supplies; propagation of desirable species of fish and other aquatic life; and other compatible uses.

**7. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS**

**A. 303(d) List**

The receiving stream is not listed on the 2018 303(d) list. Therefore, no permit action is needed.

**B. Applicable Total Maximum Daily Load (TMDL) Reports**

There are no applicable TMDLs for the receiving stream.

### C. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Fact Sheet were sent to the USF&WS for their review.

The Arkansas Natural Heritage Commission stated that the following species of conservation concern are known to occur in the Mississippi River at or within five miles downstream of the outfalls:

*Notropis wickliffi*, channel shiner-state concern  
*Scaphirhynchus albus*, pallid sturgeon-federal concern (endangered)  
*Sternula antillarum athalassos*, Interior Least Tern-federal concern (endangered)

The limits in the permit are designed to protect all beneficial uses of the receiving waters, including propagation of desirable species of fish and other aquatic life, which may affect the above species of conservation concern. Therefore, the DEQ has determined that the final permit limitations will serve to help protect the species of conservation concern identified above.

### D. Anti-Degradation

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the Anti-degradation Policy and all other applicable water quality standards found in APC&EC Rule 2.

## 8. OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION

The following is a description of the facility described in the application:

### A. Design Flow:

Outfall EV201: Design Flow of 1.25 MGD

Outfall EV202: Variable Flow

### B. Type of Treatment:

Outfall EV201: oil removal (separate oil and water using pH adjustment, chemical treatment, and/or decanting), homogenization, metals removal (remove the metals via pH adjustment, coagulation/flocculation, and dissolved air floatation units), clarification, aeration for iron oxidization, filtration, and sludge processing

Outfall EV202: Sedimentation pond

C. Discharge Description:

Outfall EV201: treated process wastewater from the following sources: direct reduced iron unit, RH degasser units, continuous casting mill and hot strip mill (collectively known as endless strip process), pickling and tandem mill, other cold mill operations, pickling and galvanizing line pickling operations, alkaline cleaning operations, galvanizing line, hot dip galvanizing unit, push-pull pickling line, skin pass mill, other coating operations, sand filter backwash, contact cooling water systems, and non-contact cooling water systems

Outfall EV202: stormwater runoff, dust suppression water, and quenching water from slag yard

D. Facility Status: This facility was evaluated using the NPDES Permit Rating Worksheet (MRAT) to determine the correct permitting status. Since the facility's MRAT score of 85 is more than 80, this facility is classified as a major industrial.

E. Facility Construction: This permit does not authorize or approve the construction or modification of any part of the treatment system or facilities. Approval for such construction must be by permit issued under Rule 6.202.

**9. ACTIVITY**

Under the Standard Industrial Classification (SIC) code of 3312 or North American Industry Classification System (NAICS) code of 331110, the applicant's activities are the operation of a steel mill.

**10. SOLIDS PRACTICES**

Solids generated by the process wastewater treatment system will be dewatered through the press plate filter or by air drying in the sludge processing area, and shipped off-site for recycling or disposal. Solids generated by the stormwater and slag quenching water will remain in the sedimentation pond and will be removed when necessary for off-site disposal. Solids disposal, if any, will require prior authorization from this Division and shall be conducted in accordance with Part III.B.6 of the permit.

**11. DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS**

The Division of Environmental Quality has determined to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 C.F.R. Parts 122, 124, and Subchapter N), and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.). All of the information contained in the application, including all of the submitted effluent testing data, was reviewed to determine the need for effluent limits and other permit requirements.

The following is an explanation of the derivation of the conditions of the permit and the reasons

for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 C.F.R. § 124.7.

**Technology-Based Versus Water Quality-Based Effluent Limitations and Conditions**

Following regulations promulgated at 40 C.F.R. § 122.44, the permit limits are based on either technology-based effluent limits pursuant to 40 C.F.R. § 122.44(a) or on State water quality standards and requirements pursuant to 40 C.F.R. § 122.44(d), whichever are more stringent as follows:

Parameter	Water Quality-Based		Technology-Based		Final Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
<b>Outfall EV201</b>						
TSS	N/A	N/A	735.4 lb/day	1847.4 lb/day	Report* mg/l	Report* mg/l
					735.4 lb/day	1847.4 lb/day
O&G	10 mg/l	15 mg/l	216.8 lb/day	526.3 lb/day	10 mg/l	15 mg/l
	104.3 lb/day	156.4 lb/day			104.3 lb/day	156.4 lb/day
Chromium (VI)	738 lb/day	1,480 lb/day	0.1 lb/day	0.3 lb/day	Report* mg/l	Report* mg/l
					0.1 lb/day	0.3 lb/day
Chromium, Total	N/A	N/A	0.4 lb/day	1.0 lb/day	Report* mg/l	Report* mg/l
					0.4 lb/day	1.0 lb/day
Lead, Total	2,590 lb/day	5,197 lb/day	1.7 lb/day	5.1 lb/day	Report* mg/l	Report* mg/l
					1.7 lb/day	5.1 lb/day
Nickel, Total	71,429 lb/day	143,319 lb/day	0.3 lb/day	0.9 lb/day	Report* mg/l	Report* mg/l
					0.3 lb/day	0.9 lb/day
Zinc, Total	14,978 lb/day	30,053 lb/day	2.4 lb/day	7.2 lb/day	Report* mg/l	Report* mg/l
					2.4 lb/day	7.2 lb/day

Parameter	Water Quality-Based		Technology-Based		Final Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
Naphthalene	107,981 lb/day	216,658 lb/day	0.05 lb/day	0.1 lb/day	Report* mg/l	Report* mg/l
					0.05 lb/day	0.1 lb/day
Tetrachloroethylene	207,529 lb/day	416,397 lb/day	0.07 lb/day	0.1 lb/day	Report* mg/l	Report* mg/l
					0.07 lb/day	0.1 lb/day
pH	6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.	
Acute WET Testing	Report	Report	N/A	N/A	Report	Report
<b>Outfall EV202</b>						
TSS	N/A	N/A	100 mg/l	150 mg/l	100 mg/l	150 mg/l
O&G	10 mg/l	15 mg/l	N/A	N/A	10 mg/l	15 mg/l
pH	6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.	

\* Monitor and report requirements only for concentration are included in the permit. See Section 11.E.5, paragraph two of this Fact Sheet for explanation.

**A. Justification for Limitations and Conditions of the Final Permit**

Parameter	Water Quality or Technology	Justification
<b>Outfall EV201</b>		
TSS	Technology	NSPS 40 C.F.R. 420 Subparts D, E, F, G, I, J, K, L, and M
O&G	Water Quality	Rule 2.510
Chromium (VI)	Technology	NSPS 40 C.F.R. 420 Subpart L
Chromium, Total	Technology	NSPS 40 C.F.R. 420 Subpart J
Lead, Total	Technology	NSPS 40 C.F.R. 420 Subparts D, E, F, I, J, and L
Nickel, Total	Technology	NSPS 40 C.F.R. 420 Subpart J
Zinc, Total	Technology	NSPS 40 C.F.R. 420 Subparts D, E, F, I, J, and L
Naphthalene	Technology	NSPS 40 C.F.R. 420 Subpart J
Tetrachloroethylene	Technology	NSPS 40 C.F.R. 420 Subpart J
pH	Water Quality	Rule 2.504
Acute WET Testing	Water Quality	2000 CPP: Appendix D Part V.C – Implementation Procedures for Toxic Substances
<b>Outfall EV202</b>		

Parameter	Water Quality or Technology	Justification
TSS	Technology	Generally accepted scientific knowledge and engineering practice, Industrial Stormwater General Permit ARR000000
O&G	Water Quality	Rule 2.510
pH	Water Quality	Rule 2.504

### **Total Suspended Solids (TSS) at Outfall EV202**

TSS is a factor contributing to physical and aesthetic degradation of water quality. TSS is physically related to other pollutants, particularly nutrients and metals, which may be carried on the surface of suspended sediments. In accordance with 40 C.F.R. § 122.44(d)(1)(i), “limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” APC&EC Rule 2.408 states, “Receiving waters shall have no distinctly visible solids, scum or foam of a persistent nature...” Note that TSS is a primary factor affecting turbidity. The DEQ acknowledges that there are no Water Quality Standards for TSS; however, there are Water Quality Standards for turbidity based on APC&EC Rule 2.503. APC&EC Rule No. 2 lists a turbidity value for all flows of 75 NTU for the Mississippi River. As stated above, TSS is a good indicator of other pollutants, particularly nutrients such as phosphorus. Therefore, in lieu of turbidity, TSS limits have been included in the permit.

The Monthly Average limit of 100 mg/l for TSS is based on the benchmark value provided in the Industrial Stormwater General Permit ARR000000. Considering that the sedimentation pond collects stormwater runoff from the slag pile, an industrial source, this limit is included to ensure the pond is operating properly. The Daily Maximum limit of 150 mg/l for TSS is based on Section 5.4.2 of the Technical Support Document for Water Quality-based Toxics Control. For more information, see Section 11.C.2 of this Fact Sheet.

### **Oil and Grease (O&G) at Outfalls EV201 & EV202**

APC&EC Rule 2.510 states, “Oil, grease or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface, or coat the banks and/or bottoms of the water courses or adversely affect any of the associated biota. Oil and grease shall be an average of no more than 10 mg/L or a maximum of no more than 15 mg/L. No mixing zones are allowed for discharges of oil and grease.” Therefore, Monthly Average and Daily Maximum limits of 10 mg/l and 15 mg/l, respectively, have been included in the permit to be met at end-of-pipe.

**B. Anti-backsliding**

This is a new permit for this facility. The anti-backsliding regulations will be considered during the next renewal of this permit.

**C. Limits Calculations**

1. Mass Limits:

In accordance with 40 C.F.R. § 122.45(f)(1), all pollutants limited in permits shall have limitations expressed in terms of mass if feasible. 40 C.F.R. § 122.45(f)(2) allows for pollutants which are limited in terms of mass to also be limited in terms of other units of measurement.

Outfall EV201

Calculations of mass limits are explained in Section 11.E of this Fact Sheet.

Outfall EV202

Mass limits are not feasible for this outfall because the runoff through the system depends more on meteorological conditions than on the operations of the steel mill.

2. Daily Maximum Limits:

Outfall EV201

The daily maximum concentration limit for O&G is based on Rule 2.510.

Concentration limits are not included for other parameters at this outfall since the receiving stream to effluent dilution factor is greater than 100:1 [EPA Technical Support Document for Water Quality-based Toxics Control, Section 5.7.1, March 1991].

Outfall EV202

The daily maximum limit for TSS is based on Section 5.4.2 of the Technical Support Document for Water Quality-based Toxics Control:

$$\text{daily maximum limits} = \text{monthly average limits} \times 1.5$$

The daily maximum limit for O&G is based on Rule 2.510.

**D. Cooling Water Intake Structure (CWIS) – CWA § 316(b)**

All cooling water used by the facility is taken from groundwater wells. There is no CWIS



for surface water. Therefore, CWA § 316(b) regulations do not apply.

**E. Applicable Effluent Limitations Guidelines**

Discharges from facilities of this type are covered by Federal effluent limitations guidelines (ELGs) promulgated under 40 C.F.R. Part 420 – Iron and Steel Manufacturing Point Source Category. The operations consuming water and generating wastewater at this facility are covered under the following subcategories of 40 C.F.R. Part 420: Subpart D – Steelmaking Subcategory, Subpart E – Vacuum Degassing Subcategory, Subpart F – Continuous Casting Subcategory, Subpart G – Hot Forming Subcategory, Subpart I – Acid Pickling Subcategory, Subpart J – Cold Forming Subcategory, Subpart K – Alkaline Cleaning Subcategory, Subpart L – Hot Coating Subcategory, and Subpart M – Other Operations Subcategory.

The production data submitted with the application is based on projections for the first three (3) years of operation and the projected capacity of the new process units. The technology-based effluent limitations and monitoring requirements are included based on the estimated production data and 40 C.F.R. Part 420. These limits are derived from the applicable New Source Performance Standards (NSPSs) specified in the aforementioned subcategories. The calculations of these limits are presented as follows:

**(1) Production Data**

Applicable New Source Performance Standard (NSPS)	Production Quantity (1,000 lb/day as liquid steel)
<u>Subpart D – Steelmaking</u> 40 C.F.R. § 420.44(a), Basic oxygen furnace steelmaking—semi-wet; and electric arc furnace steelmaking—semi-wet	22,466
<u>Subpart E – Vacuum Degassing</u> 40 C.F.R. § 420.54	8,220
<u>Subpart F – Continuous Casting</u> 40 C.F.R. § 420.64	21,918
<u>Subpart G – Hot Forming</u> 40 C.F.R. § 420.74(c)(1), Flat mills—Hot strip and sheet mills, carbon and specialty	21,918
<u>Subpart I – Acid Pickling</u> 40 C.F.R. § 420.94(b)(4), Hydrochloric acid pickling (spent acid solutions and rinse waters)—Fume scrubbers	three (3) fume scrubbers
<u>Subpart J – Cold Forming</u> 40 C.F.R. § 420.104(a)(2), Cold rolling mills—Recirculation-multiple stands	23,726
<u>Subpart K – Alkaline Cleaning</u> 40 C.F.R. § 420.114(a), Batch and continuous	7,068

Applicable New Source Performance Standard (NSPS)	Production Quantity (1,000 lb/day as liquid steel)
<u>Subpart L – Hot Coating</u> 40 C.F.R. § 420.124(a)(1), Galvanizing, terne coating and other coatings—Strip, sheet, and miscellaneous products	7,068
<u>Subpart M – Other Operations</u> 40 C.F.R. § 420.134(a), Direct-reduced iron	16,439

**(2) Federal Effluent Limitations**

40 C.F.R. § 420.44(a), Subpart D—Steelmaking – NSPS

It was noted in Air Permit No. 2445-AOP-R1 for Exploratory Ventures, LLC that baghouses are used as the primary emissions control devices for the electric arc furnaces. As with other steel mills, this type of control device is defined as semi-wet, according to 40 C.F.R. 420.41(e). Therefore, 40 C.F.R. 420.44(a) applies in this situation, which prohibits the discharge of process wastewater pollutants to navigable waters.

40 C.F.R. § 420.54, Subpart E—Vacuum Degassing – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.00261	0.00730
Lead	0.0000313	0.0000939
Zinc	0.0000469	0.000141
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

40 C.F.R. § 420.64, Subpart F—Continuous Casting – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.00261	0.00730
O&G	0.00104	0.00313
Lead	0.0000313	0.0000939
Zinc	0.0000469	0.000141
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

40 C.F.R. § 420.74(c)(1), Subpart G—Hot Forming – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.0163	0.0435
O&G	0.00545 <sup>1</sup>	0.0109
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

<sup>1</sup> A production-based effluent limit factor for the monthly average for O&G was determined by the permit writer for calculation of final effluent limits. The factor was calculated by dividing the daily maximum factor of 0.0109 lb/1,000 lb by two (2), resulting in a monthly average factor of 0.00545 lb/1,000 lb. This determination is based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control, which states that in the absence of other information, the daily maximum limit is divided by 2.0 in order to derive a monthly average limit.

40 C.F.R. § 420.94(b)(4), Subpart I—Acid Pickling – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average <sup>2</sup> (lb/day) <sup>3</sup>	Daily Maximum <sup>2</sup> (lb/day) <sup>3</sup>
TSS	5.40	12.61
O&G <sup>1</sup>	1.81	5.40
Lead	0.0271	0.0811
Zinc	0.0362	0.108
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

<sup>1</sup> The limitations for O&G shall be applicable when acid pickling wastewaters are treated with cold rolling wastewaters.

<sup>2</sup> The above limitations shall be applicable to each fume scrubber associated with acid pickling operations.

<sup>3</sup> It should be noted that the above limitations, except pH, are expressed in the federal regulation in units of kg/day, but have been converted to lb/day for simplification.

40 C.F.R. § 420.104(a)(2), Subpart J—Cold Forming – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.00125	0.00250
O&G	0.000417	0.00104
Chromium <sup>1</sup>	0.0000167	0.0000418
Lead	N/A <sup>1</sup>	N/A <sup>1</sup>
Nickel <sup>1</sup>	0.0000125	0.0000376
Zinc	N/A <sup>1</sup>	N/A <sup>1</sup>

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
Naphthalene	0.0000021 <sup>2</sup>	0.0000042
Tetrachloroethylene	0.00000315 <sup>2</sup>	0.0000063
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

<sup>1</sup> The limitations for chromium and nickel shall be applicable in lieu of those for lead and zinc when cold rolling wastewaters are treated with descaling or combination acid pickling wastewaters. Therefore, the loadings calculated for lead and zinc, according to Subpart J, were not included in the building block approach for those parameters.

<sup>2</sup> Production-based effluent limit factors for the monthly averages of naphthalene and tetrachloroethylene were determined by the permit writer for calculations of final effluent limits. The factor for naphthalene was calculated by dividing the daily maximum factor of 0.0000042 lb/1,000 lb by two (2), resulting in a monthly average factor of 0.0000021 lb/1,000 lb. The factor for tetrachloroethylene was calculated by dividing the daily maximum factor of 0.0000063 lb/1,000 lb by two (2), resulting in a monthly average factor of 0.00000315 lb/1,000 lb. These determinations are based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control, which states that in the absence of other information, the daily maximum limit is divided by 2.0 in order to derive a monthly average limit.

40 C.F.R. § 420.114(a), Subpart K—Alkaline Cleaning – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.00626	0.0146
O&G	0.00209	0.00626
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

40 C.F.R. § 420.124(a)(1), Subpart L—Hot Coating – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.0188	0.0438
O&G	0.00626	0.0188
Lead	0.0000939	0.000282
Zinc	0.000125	0.000376
Chromium (VI) <sup>1</sup>	0.0000125	0.0000376
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

<sup>1</sup> The limitations for chromium (VI) shall be applicable only to galvanizing operations, which discharge wastewaters from the chromate rinse step.

40 C.F.R. § 420.134(a), Subpart M—Other Operations – NSPS

Production-based Effluent Limit Factors		
Parameter	New Source Performance Standards	
	Monthly Average (lb/1,000 lb of product)	Daily Maximum (lb/1,000 lb of product)
TSS	0.00465	0.00998
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

### (3) Calculations

Limit (lb/day) = Production Quantity (1,000 lb/day) × ELG Factor (lb/1,000 lb product)

The following sample calculation shows how the technology-based TSS limits were calculated. In accordance with the NPDES Permit Writers' Manual, the building block approach was used since this facility is subject to multiple subparts of 40 C.F.R. Part 420. Technology-based limits for O&G, Chromium (VI), Chromium, Lead, Nickel, Zinc, Naphthalene, and Tetrachloroethylene are calculated using the same procedure shown below, with the applicable production-based effluent limit factors from 40 C.F.R. Part 420 listed in the previous tables. It should be noted that the effluent limit factor for Subpart I is based on the number of fume scrubbers used rather than production.

#### Sample Calculation of TSS Technology-based Limits

Subpart E: Limit = 8,220 (1,000 lb/day) × 0.00261 lb/1,000 lb = 21.5 lb/day

#### Monthly Average Limit for TSS

ELG-NSPS	Production Quantity (1,000 lb/day)	ELG Factor (lb/1,000 lb)	Monthly Avg. Mass Limit (lb/day)
Subpart D	22,466	No discharge	0.0
Subpart E	8,220	0.00261	21.5
Subpart F	21,918	0.00261	57.2
Subpart G	21,918	0.0163	357.3
Subpart I	3 fume scrubbers	5.40 lb/day	16.2
Subpart J	23,726	0.00125	29.7
Subpart K	7,068	0.00626	44.2
Subpart L	7,068	0.0188	132.9
Subpart M	16,439	0.00465	76.4
<b>Total</b>	-	-	<b>735.4</b>

Daily Maximum Limit for TSS

ELG-NSPS	Production Quantity (1,000 lb/day)	ELG Factor (lb/1,000 lb)	Daily Max. Mass Limit (lb/day)
Subpart D	22,466	No discharge	0.0
Subpart E	8,220	0.0073	60.0
Subpart F	21,918	0.0073	160.0
Subpart G	21,918	0.0435	953.4
Subpart I	3 fume scrubbers	12.61 lb/day	37.8
Subpart J	23,726	0.0025	59.3
Subpart K	7,068	0.0146	103.2
Subpart L	7,068	0.0438	309.6
Subpart M	16,439	0.00998	164.1
<b>Total</b>	-	-	<b>1847.4</b>

(4) **Technology-based Limits**

Parameter	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)
TSS	735.4	1847.4
O&G	216.8	526.3
Chromium (VI)	0.1	0.3
Chromium, Total	0.4	1.0
Lead, Total	1.7	5.1
Nickel, Total	0.3	0.9
Zinc, Total	2.4	7.2
Naphthalene	0.05	0.1
Tetrachloroethylene	0.07	0.1
pH	6.0-9.0 s.u.	6.0-9.0 s.u.

The calculations of technology-based limits can be reviewed at the following web link:

[https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0053384\\_ELG%20Production-based%20Limits\\_20221117.pdf](https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0053384_ELG%20Production-based%20Limits_20221117.pdf)

(5) **Water Quality-based Limits vs. Technology-based Limits**

The water quality-based limit for pH contained in APC&EC Rule 2.504 is equivalent to the technology-based limits specified in the ELGs of the select subparts of 40 C.F.R. 420. Therefore, no comparison is necessary for pH limits.

Concentration limits have not been calculated for limitation purposes because this outfall discharges directly to the Mississippi River, which has a 7Q10 of 164,272 cfs. Instead,

water quality-based mass limits, derived from the water quality standards contained in APC&EC Rule 2.508, were calculated for comparison with the aforementioned technology-based limits. The water quality-based masses for Chromium (VI), Lead, Nickel, Zinc, Naphthalene, and Tetrachloroethylene were calculated using the procedures derived in a manner consistent with the Technical Support Document for Water Quality-based Toxics Control (EPA, March 1991), the 2000 CPP, and 40 C.F.R. 122.45(c).

Parameter	Value	Source
Design Flow	1.25 MGD = 1.93 cfs	Permit application
7Q10	164,272 cfs	U.S.G.S. Station ID: 07032000 and Application Addendum
TSS	8 mg/l	Specified in CPP for Delta Ecoregion
Hardness as CaCO <sub>3</sub>	81 mg/l	Specified in CPP for Delta Ecoregion
pH	7.0 s.u.	Neutral pH used since no known upstream data was found.

**(6) Calculated Water Quality-based Masses**

Parameter	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)
O&G	104.3	156.4
Chromium (VI)	738	1,480
Lead, Total	2,590	5,197
Nickel, Total	71,429	143,319
Zinc, Total	14,978	30,053
Naphthalene	107,981	216,658
Tetrachloroethylene	207,529	416,397

The calculations of water quality-based masses can be reviewed at the following web links:

[https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0053384\\_PPS%20for%20Outfall%200001\\_20221117.pdf](https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0053384_PPS%20for%20Outfall%200001_20221117.pdf)

**(7) Comparison of Technology-based Masses to Water Quality-based Masses**

Parameter	Technology-based Masses		Water Quality-based Masses	
	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)
O&G	216.8	526.3	<b>104.3</b>	<b>156.4</b>
Chromium (VI)	<b>0.1</b>	<b>0.3</b>	738	1,480

Parameter	Technology-based Masses		Water Quality-based Masses	
	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)
Lead, Total	<b>1.7</b>	<b>5.1</b>	2,590	5,197
Nickel, Total	<b>0.3</b>	<b>0.9</b>	71,429	143,319
Zinc, Total	<b>2.4</b>	<b>7.2</b>	14,978	30,053
Naphthalene	<b>0.05</b>	<b>0.1</b>	107,981	216,658
Tetrachloroethylene	<b>0.07</b>	<b>0.1</b>	207,529	416,397

Using the above comparison table, the water quality-based mass for the monthly average and the daily maximum of O&G is more stringent than the technology-based mass. For the rest of the parameters in this table, the technology-based masses are much more stringent than the water quality-based masses. Therefore, for parameters other than O&G, the technology-based mass limits are used in the permit instead of the water quality-based mass limits. The concentration limits for O&G are water quality-based in accordance with Rule 2.510. As stated above in Section 11.E.5, equivalent technology-based concentrations for other pollutants discharging through Outfall EV201 are not included in the permit since the receiving stream to effluent dilution factor is greater than 100:1 [EPA Technical Support Document for Water Quality Based Toxics Control, Section 5.7.1, March 1991].

**(8) Mass Permit Limits Included for Outfall EV201**

Parameter	Monthly Average Limit (lb/day)	Daily Maximum Limit (lb/day)
TSS	735.4	1847.4
O&G	104.3	156.4
Chromium (VI)	0.1	0.3
Chromium, Total	0.4	1.0
Lead, Total	1.7	5.1
Nickel, Total	0.3	0.9
Zinc, Total	2.4	7.2
Naphthalene	0.05	0.1
Tetrachloroethylene	0.07	0.1
pH <sup>1</sup>	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.

<sup>1</sup> There are no mass limits for pH.

**12. WHOLE EFFLUENT TOXICITY**

Section 101(a)(3) of the Clean Water Act states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addition, DEQ is required under 40 C.F.R. § 122.44(d)(1), adopted by reference in Rule 6, to include conditions as necessary to achieve water quality standards as established under Section 303 of the Clean



Water Act. Arkansas has established a narrative criteria which states “toxic materials shall not be present in receiving waters in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of aquatic biota.”

Whole effluent toxicity (WET) testing is the most direct measure of potential toxicity which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. It is the national policy of EPA to use bioassays as a measure of toxicity to allow evaluation of the effects of a discharge upon a receiving water (49 Federal Register 9016-9019, March 9, 1984). EPA Region 6 and the State of Arkansas are now implementing the Post Third Round Policy and Strategy established on September 9, 1992.

Whole effluent toxicity testing of the effluent is thereby required as a condition of this permit to assess potential toxicity. The whole effluent toxicity testing procedures stipulated as a condition of this permit are as follows:

<b>TOXICITY TESTS</b>	<b>FREQUENCY</b>
48 hour Acute WET	Once/quarter

Requirements for measurement frequency are based on the CPP.

Since 7Q10 is greater than 100 cfs (ft<sup>3</sup>/sec) and dilution ratio (DR) is greater than 100:1, acute WET testing requirements will be included in the permit.

The calculations for dilution used for the acute WET testing are as follows:

$$\text{Critical Dilution (CD)} = (Q_d / (Q_d + Q_b)) \times 100$$

$$Q_d = \text{Design Flow} = 1.25 \text{ MGD} = 1.94 \text{ cfs}$$

$$7Q_{10} = 164,272 \text{ cfs}$$

$$Q_b = \text{Background flow} = 0.1 \times (0.25) \times 7Q_{10} = 4,107 \text{ cfs}$$

$$CD = (1.94 / (1.94 + 4,107)) \times 100 = 0.05\%$$

$$DR = (7Q_{10} + Q_d) / Q_d = 84,677 > 100$$

Toxicity tests shall be performed in accordance with protocols described in “Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms”, EPA/600/4-90/027. A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are **0.02%**, **0.03%**, **0.04%**, **0.05%**, and **0.07%** (See the CPP). The low-flow effluent concentration (critical dilution) is defined as **0.05%** effluent. The requirement for acute WET tests is based on the magnitude of the facility’s discharge with respect to receiving stream flow. The stipulated test species *Daphnia pulex* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility’s discharge, in accordance with the regulations promulgated at 40 C.F.R. § 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be reported according to EPA-821-R-02-012, October 2002 and shall be submitted as an attachment to the Discharge Monitoring Report (DMR).

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Division shows toxicity in the permittee's discharge. Modification or revocation of this permit is subject to the provisions of 40 C.F.R. § 122.62, as adopted by reference in APC&EC Rule 6. Increased or intensified toxicity testing may also be required in accordance with Section 308 of the Clean Water Act and Section 8-4-201 of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

### 13. STORMWATER REQUIREMENTS

The federal regulations at 40 C.F.R. § 122.26(b)(14) require certain industrial sectors to have NPDES permit coverage for stormwater discharges from the facility. These requirements include the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to control the quality of stormwater discharges from the facility. This facility must obtain permit coverage under NPDES Industrial Stormwater General Permit ARR000000.

### 14. SAMPLE TYPE AND FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 C.F.R. § 122.48(b)] and to ensure compliance with permit limitations [40 C.F.R. § 122.44(i)(1)].

Requirements for sample type and sampling frequency have been based on the similar discharge permit AR0052582.

Parameter	Final Permit	
	Frequency of Sample	Sample Type
<b>Outfall EV201</b>		
Flow	once/day	totalizing meter
TSS	once/week	composite
O&G	once/week	grab
Chromium (VI)	once/week	composite
Chromium, Total	once/week	composite
Lead, Total	once/week	composite
Nickel, Total	once/week	composite
Zinc, Total	once/week	composite
Naphthalene	once/week	grab
Tetrachloroethylene	once/week	grab

Parameter	Final Permit	
	Frequency of Sample	Sample Type
pH	once/week	grab
Acute WET Testing	once/quarter	composite
<b>Outfall EV202</b>		
Flow	two/week	totalizing meter
TSS	once/quarter	grab
O&G	once/quarter	grab
pH	once/month	grab

**15. PERMIT COMPLIANCE SCHEDULE**

A Schedule of Compliance has not been included in this permit.

**16. MONITORING AND REPORTING**

The applicant is at all times required to monitor the discharge on a regular basis and report the results monthly. The monitoring results will be available to the public.

**17. SOURCES**

The following sources were used to draft the permit:

- A. [Application No. AR0053384 received November 9, 2022, with additional information received by April 21, 2023.](#)
- B. APC&EC Rule 2.
- C. APC&EC Rule 3.
- D. APC&EC Rule 6, which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Rule 6.104.
- E. 40 C.F.R. Parts 122, 125, and 420.
- F. Discharge permit file AR0052582.
- G. “2018 Integrated Water Quality Monitoring and Assessment Report,” DEQ.
- H. “2018 List of Impaired Waterbodies (303(d) List),” DEQ, May 2020.
- I. “Identification and Classification of Perennial Streams of Arkansas,” Arkansas Geological Commission
- J. Continuing Planning Process (CPP).
- K. “OWQ Guidelines for Decimal Places and Rounding Conventions in NPDES Permits” documented in a June 12, 2020 Interoffice Memorandum.
- L. OWQ guidance memorandum “Recommended Monitoring Frequencies and Sample Types for NPDES Permits”, April 14, 2022.
- M. Technical Support Document for Water Quality-based Toxic Control.
- N. [Planning Review Memo dated November 21, 2022.](#)
- O. [NPDES Permit Rating Spreadsheet \(MRAT\) dated November 17, 2022.](#)

- P. [EPA No Objection to Preliminary Draft Permit Letter, dated June 13, 2023, from Richard Wooster of EPA to Bryan Leamons of DEQ.](#)
- Q. [ANHC Comment to Preliminary Draft Permit Letter, dated July 10, 2023, from Katie Shannon of ANHC to Terry Liu of DEQ.](#)

## 18. PUBLIC NOTICE

The public notice of the draft permit was published for public comment on July 2, 2023. The last day of the comment period was thirty (30) days after the publication date. A summary of the comments received by the DEQ during the public comment period and response to the comments are included with this permit decision. The response to comments also includes a discussion of any substantial changes from the draft permit.

A copy of the permit and public notice was sent via email to the State of Tennessee, the Corps of Engineers, the Regional Director of the U.S. Fish and Wildlife Service, the Department of Parks, Heritage, and Tourism, the EPA, and the Arkansas Department of Health.

## 19. PERMIT FEE

In accordance with Rule 9.403(A)(2), the initial and annual fee for the permit is \$11,000.

This facility is billed under Fee Code K.

## 20. POINT OF CONTACT

For additional information, contact:

Terry Liu, P.E.  
Permits Branch, Office of Water Quality  
Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317  
Telephone: (501) 682-0653

**RESPONSE TO COMMENTS  
FINAL PERMITTING DECISION**

Permit No.: AR0053384  
 Applicant: Exploratory Ventures, LLC  
 Prepared by: Terry Liu, P.E.

The following are responses to comments received by the Division of Environmental Quality (DEQ) regarding the draft permit number referenced above and are developed in accordance with regulations promulgated at 40 C.F.R. §124.17, Arkansas Pollution Control & Ecology Commission (APC&EC) Rule 8 (Administrative Procedures), and Arkansas Code Annotated (A.C.A.) §8-4-203(e)(2).

**Introduction**

The above permit was submitted for public comment on July 2, 2023. The public comment period ended on August 1, 2023. This document contains a summary of the comments that the DEQ received during the public comment period. A summary of the changes to the NPDES Permit can be found on the last page of this document. The following people or organizations sent comments to the DEQ during the public notice. A total of one comment was raised by one commenter.

Commenter	Number of Comments Raised
1. Katie Shannon, Arkansas Natural Heritage Commission	1

**Comment 1** The Arkansas Natural Heritage Commission stated that the following species of conservation concern are known to occur in the Mississippi River at or within five miles downstream of the outfall:

- Notropis wickliffi*, channel shiner-state concern
- Scaphirhynchus albus*, pallid sturgeon-federal concern (endangered)
- Sternula antillarum athalassos*, Interior Least Tern-federal concern (endangered)

**Response:** The above information will be included in Section 7.C of the Fact Sheet of the permit, which addresses endangered species in the receiving stream. The limits in the permit are designed to protect all beneficial uses of the receiving water, including propagation of desirable species of fish and other aquatic life, which may affect the above species of conservation concern. Therefore, the DEQ has determined that the final permit limitations will serve to help protect the species of conservation concern identified above.

Summary of Changes				
Part	Draft Permit	Final Permit	Reason	Comment #
Fact Sheet Section 7.C	N/A	Additions to the Endangered Species section of the Statement of Basis	New information received from the Arkansas Natural Heritage Commission	1