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From: David Carstens

Sent: Friday, April 7, 2023 12:41:04 PM

To: Terry Liu (adpce.ad)

Cc: Jessica Sears (adpce.ad)

Subject: Exploratory Ventures - Comments on Pre-Draft NPDES Permit No. AR0053384 (AFIN 47-01073)

Importance: Normal

Attachments:

[EV_Pre-Draft Permit AR0053384_Admin Comments_Final_April-07-2023.pdf](#) [EV_Pre-Draft NPDES Permit AR0053384_Redline_Final_April-07-2023.docx](#)

Dear Mr. Liu:

This email is submitted on behalf of Exploratory Ventures, LLC (EV) in Osceola, Arkansas (AFIN 47-01073).

Thank you for the opportunity to submit administrative comments on pre-draft NPDES Permit No. AR0053384, which was provided to EV on April 3, 2023.

Our comments are summarized in the enclosed document (file #1).

A redline-strikeout version of the pre-draft permit which shows the proposed changes is attached for your reference (file #2).

Your consideration of our administrative comments on pre-draft NPDES Permit No. AR0053384 is appreciated. Please contact me if you have any questions. Thank you.

David Carstens

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Exploratory Ventures, LLC
Comments on Pre-Draft Renewal NPDES Permit No. AR0053384
AFIN: 47-01073

Exploratory Ventures, LLC (EV) is making the following administrative comments on the pre-draft NPDES permit for the Osceola, Arkansas facility:

- (1). If possible, EV would like to revise the description of the discharge from the slag yard pond specified on the cover sheet of the permit. The pond will receive stormwater runoff and quench water from the slag yard. The pond will also receive the runoff from water that is used for dust suppression in the slag yard. The proposed change is as follows:

Exploratory Ventures, LLC is authorized to discharge treated process wastewater, stormwater runoff, and [dust suppression](#)/quenching water from slag yard from a facility located as follows: 1000 East County Road 860, Osceola, AR 72370, in Mississippi County.

If necessary, EV will update the permit application to include the water used for dust suppression in the slag yard. As an alternative, we can request that this change be made during the 30-day public comment period on the draft NPDES permit.

- (2). For future reference, make the following changes to the description of the treated process wastewater in Part I, "Permit Requirements" (page 1 of Part IA):

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 lines, skin pass mills, other coating operations, sand filter backwash, contact cooling water systems, and non-contact cooling water systems.

- (3). For future reference, make the following change to the description of the discharge from the slag yard pond in Part I, "Permit Requirements" (page 3 of Part IA):

Section A2. Effluent Limitations and Monitoring Requirements: Outfall EV202 - stormwater runoff and [dust suppression](#)/quenching water from slag yard.

- (4). For future reference, clarify the language in Section B(i)(b), "Part I Testing Frequency Other Than Monthly", of Paragraph 6, "Whole Effluent Toxicity Testing", of Part II, "Other Conditions" (page 4), as follows:

(B)(i)(b). If any of the retests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item E of this section. The permittee shall notify DEQ in writing within 5 days

of [knowledge of](#) the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest....

It is our understanding that the DEQ recently updated its permit template for acute WET testing. Please use the current language in the draft permit.

- (5). The language in Section C(iv), "Samples and Composites", of Paragraph 6, "Whole Effluent Toxicity Testing", of Part II, "Other Conditions" (page 5), is confusing. It refers to the collection of both flow-weighted and time-weighted samples. It is our understanding that flow-weighted samples are required (if possible). Please delete the reference to time-weighted samples as follows:

(C)(iv). The permittee shall collect two flow-weighted composite samples from the outfall(s) listed at Item A.i above. ~~Unless otherwise stated in this section, a composite sample for WET shall consist of a minimum of 12 subsamples gathered at equal time intervals during a 24-hour period.~~

- (6). For future reference, clarify the language in Section D(i), "Reporting", of Paragraph 6, "Whole Effluent Toxicity Testing", of Part II, "Other Conditions" (page 6), as follows:

(D)(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 EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.7 of this permit. The permittee shall submit full reports [via NetDMR](#). For any test or retest which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

- (7). Correct the typographic error in Paragraph 9(a) of Part II, "Other Conditions" (page 11), as follows:

(9)(a). Beginning on the effective date of the ~~renewal~~ 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.

- (8). Correct the typographic error in Paragraph 4, "Permit Activity", of the Fact Sheet (page 2) as follows:

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 and quenching water from the slag yard. Therefore, the permittee is required to obtain a State Construction Permit and ~~a~~[an](#) NPDES discharge permit.

- (9). Correct the typographic errors in Paragraph 6, "Receiving Stream Segment and Discharge Location", of the Fact Sheet (page 3) as follows:

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.

- (10). Insert a comma in Paragraph 7, "303(d) List, Total Maximum Daily Loads, Endangered Species, and Anti-Degradation Considerations", of the Fact Sheet (page 3) as follows:

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

- (11). For future reference, make the following changes to Section C, "Discharge Description", of Paragraph 8, "Outfall, Treatment Process Description, and Facility Construction", of the Fact Sheet (page 5) as follows:

(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 lines, skin pass mills, other coating operations, sand filter backwash, contact cooling water systems, and non-contact cooling water systems

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

- (12). Revise the water quality-based mass effluent values specified in the introductory section of Paragraph 11, "Development and Basis for Permit Conditions", of the Fact Sheet (pages 6 and 7). These values are inconsistent with the effluent values provided in Section E, "Applicable Effluent Limitations Guidelines" (page 16), and the DEQ's permit limit calculations (weblink included on page 16).

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

Following regulations promulgated at 40 C.F.R. § 122.44, the draft 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		Draft 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
Outfall EV201						
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)	534 <u>738</u> lb/day	1,072 <u>1,480</u> 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	1,876 <u>2,590</u> lb/day	3,765 <u>5,197</u> 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	51,745 <u>71,429</u> lb/day	103,823 <u>143,319</u> 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	10,851 <u>14,978</u> lb/day	21,773 <u>30,053</u> lb/day	2.4 lb/day	7.2 lb/day	Report* mg/l	Report* mg/l
					2.4 lb/day	7.2 lb/day
Naphthalene	78,228 <u>107,981</u> lb/day	156,961 <u>216,658</u> 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			0.07 lb/day	0.1 lb/day	Report* mg/l	Report* mg/l

Parameter	Water Quality-Based		Technology-Based		Draft 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
	150,339 207,529 lb/day	301,647 416,397 lb/day			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
Outfall EV202						
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.

- (13). Correct the typographic errors in Section A, "Justification for Limitations and Conditions of Draft Permit", of Paragraph 11, "Development and Basis for Permit Conditions", of the Fact Sheet (page 8) as follows:

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 ponds collect stormwater runoff from the slag pile, an industrial source, this limit is included to ensure the ponds are operating properly...

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."

- (14). Revise the language in Section E, "Applicable Effluent Limitations Guidelines", of Paragraph 11, "Development and Basis for Permit Conditions", of the Fact Sheet (page 11) as follows:

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, ~~and requires no~~which prohibits the discharge of process wastewater pollutants to navigable waters.

A redline-strikeout version of the pre-draft permit which shows the proposed changes is enclosed for your reference.