STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law (Chapter 644 RSMo, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0000761
Owner:	Westinghouse Electric Company (Delaware) LLC
Address:	1000 Westinghouse Drive, Cranberry Township, PA 16066
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Hematite Remediation Project
Facility Address:	3300 State Road P, Festus, MO 63028
Legal Description:	See page 2
UTM Coordinates:	See page 2
Receiving Stream:	See page 2
First Classified Stream and ID:	See page 2
USGS Basin & Sub-watershed No.:	See page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Remediation site; SIC # 9511; NAICS # 924110. Former nuclear fuel rod production facility. Operations at the facility ceased in 2001. No products are currently produced, manufactured, stored, loaded, or transferred at the facility. The radiological residues at the site have been removed and the site has undergone decommissioning. The radiological license (SNM-00033) issued by the U.S. Nuclear Regulatory Commission was terminated in September 2018. Chemical contaminants remain in subsurface soil that is covered by clean fill material; no radiological contaminants remain onsite. Surface water does not contact the subsurface contaminants. This facility does not require a certified wastewater operator per 10 CSR 20-9.030 as this facility is privately owned.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas.

June 1, 2021
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

May 31, 2026
Expiration Date

Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL #001 – eliminated at 2017 renewal. Formerly the discharge point for the sanitary wastewater treatment plant. The permittee has removed the system from the site.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 720874, Y = 4231765

OUTFALL #002 – eliminated in 2014. This outfall was replaced with outfall #02A.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 720874, Y = 4231765

OUTFALL # 02A – removed 2021 renewal, combined wastewater and stormwater. Stormwater runoff, spring water, and the effluent from outfall #03A combine in a pond prior to discharging through this outfall; facility has capped and vegetated site, no outfalls required for pollutant monitoring in stormwater; wastewater monitored at outfall #03A.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 720893, Y = 4231734
Receiving Stream:	Tributary to Joachim Creek
First Classified Stream and ID:	100K Extent Remaining Stream WBID #3930 (C)
USGS Basin & Sub-watershed No.:	07140101-0802
Design Flow:	0.580 MGD
Average Flow:	0.992 MGD

OUTFALL # 003 – eliminated in 2014. This outfall was replaced with outfall #03A.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 720887, Y = 4231864

OUTFALL # 03A – Wastewater. Discharge of treated monitoring well purge water and decontamination of well sampling equipment: solids settling, filtration (bag filters), and carbon absorption. Stormwater (uncategorized) is also discharged from this outfall.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 720955, Y = 4231885
Receiving Stream:	Tributary to Joachim Creek
First Classified Stream and ID:	100K Extent Remaining Stream WBID #3930 (C)
USGS Basin & Sub-watershed No.:	07140101-0802
Design Flow:	600 GPD
Average Flow:	0.023 MGD

OUTFALL # 004 – eliminated prior to 2014. Stormwater from the northeast portion of the facility.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 795295, Y = 4035924

OUTFALL # 005 – eliminated prior to 2014. Stormwater from the northeast portion of the facility.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 795295, Y = 4035924

OUTFALL # 006 –removed 2021 renewal; stormwater; facility has capped and vegetated site, no outfalls required for pollutant monitoring.

Legal Description:	SE¼, SW¼, Sec.19, T40N, R05E, Jefferson County
UTM Coordinates:	X = 721251, Y = 4232082
Receiving Stream:	Tributary to Joachim Creek (C)
First Classified Stream and ID:	100K Extent Remaining Stream WBID #3930 (C)
USGS Basin & Sub-watershed No.:	07140101-0802
Design Flow:	0.200 MGD
Average Flow:	1.875 MGD

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #03A *main outfall*	**TABLE A-1** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The facility is authorized to discharge from outfall(s) as specified. The final effluent limitations shall become effective on **June 1, 2021** and remain in effect until expiration of the permit. Discharges shall be controlled, limited, and monitored by the facility as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: Q						
PHYSICAL						
Flow	MGD	*		*	once/quarter	24 hr. total
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	*		*	once/quarter	grab
pH †	SU	6.5 to 9.0		6.5 to 9.0	once/quarter	grab
Total Suspended Solids	mg/L	45		30	once/quarter	grab
METALS						
Arsenic, Total Recoverable	µg/L	*		*	once/quarter	grab
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)						
Benzo(a)anthracene	µg/L	*		*	once/quarter	grab
Benzo(a)pyrene	µg/L	*		*	once/quarter	grab
Benzo(b)fluoranthene	µg/L	*		*	once/quarter	grab
Indeno(1,2,3-cd)pyrene	µg/L	*		*	once/quarter	grab
Total PAHs	µg/L	*		*	once/quarter	grab
VOLATILE ORGANIC COMPOUNDS (VOCs)						
Cis-1,2 dichloroethylene	µg/L	*		*	once/quarter	grab
Tetrachloroethylene (PCE)	µg/L	*		*	once/quarter	grab
Trans-1,2 dichloroethylene	µg/L	*		*	once/quarter	grab
Trichloroethylene (TCE)	µg/L	*		*	once/quarter	grab
Vinyl Chloride	µg/L	*		*	once/quarter	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2021.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring and reporting requirement only

† pH: the facility will report the minimum and maximum values; pH is not to be averaged.

◊ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	**MONTHS**	**QUARTERLY EFFLUENT PARAMETERS**	**REPORT IS DUE**
First	January, February, March	Sample at least once during any month of the quarter	April 28th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. Spills, Overflows, and Other Unauthorized Discharges.
   (a) Any spill, overflow, or other discharge(s) not specifically authorized above are unauthorized discharges.
   (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.

2. Electronic Discharge Monitoring Report (eDMR) Submission System
   Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data about the NPDES program.
   (a) The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. Registration and other information regarding MoGEM can be found at https://dnr.mo.gov/mogem. Information about the eDMR system can be found at https://dnr.mo.gov/env/wpp/edmr.htm.The first user shall register as an Organization Official and the association to the facility must be approved by the Department. Regarding Standard Conditions Part I, §B, #7, the eDMR system is currently the only Department approved reporting method for this permit unless a waiver is granted by the Department.
   (b) To access the eDMR system, use: https://apps5.mo.gov/mogems/welcome.action For assistance using the eDMR system, contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082.
   (c) The facility must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127. Only facilities with an approved waiver request may submit monitoring data and reports on paper through the mail to the Department for the period the approved electronic reporting waiver is effective. Facilities may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. The department will either approve or deny this electronic reporting waiver request within 120 calendar days.

3. Site-wide minimum Best Management Practices (BMPs). At a minimum, the facility shall adhere to the following:
   (a) The facility must maintain the site as vegetated to ensure cap does not erode. Evidence of erosion shall be repaired as soon as practicable, and maintained so that future failures are eliminated.
   (b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, and thereby prevent the contamination of stormwater from these substances.
   (c) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater storage basin, to divert stormwater runoff around the wastewater storage basin, and to protect embankments from erosion.
   (d) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
   (e) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Spill records should be retained on-site.
   (f) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
   (g) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.
   (h) Remove sediment from stormwater sediment pond(s) no less than every ten years, or more frequently dependent on the amount of sediment received; sediment accumulated shall be no more than 20% total volume or as prescribed in the engineering design, whichever is less. Records must be retained since last cleanout.

4. Petroleum Secondary Containment.
   Before releasing water accumulated in petroleum secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).
   (a) If odor or sheen is found, the water shall not be discharged without treatment and shall be disposed of in accordance with legally approved methods, such as being sent to an accepting wastewater treatment facility.
   (b) If the facility wishes to discharge the accumulated stormwater with hydrocarbon odor or presence of sheen, the water shall be treated using an appropriate removal method. Following treatment and before release, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A before discharge is authorized. Records of all testing and treatment of water accumulated in secondary containment shall be available on demand to the Department. Electronic records retention is acceptable.

C. SPECIAL CONDITIONS (CONTINUED)

5. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with 644.051.16 RSMo for permit shield, and the CWA §402(k) for toxic substances. This permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under CWA §§301(b)(2)(C) and (D), §304(b)(2), and §307(a)(2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not already limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause, including determination new pollutants found in the discharge not identified in the application for the new or revised permit. The filing of a request by the facility for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.

6. All outfalls must be clearly marked in the field.

7. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.

8. The Department may require sampling and reporting as a result of illegal discharges from the site, compliance issues related to water quality concerns or BMP effectiveness, or evidence of off-site impacts from activities or discharges at the facility.

9. This permit does not apply to fertilizer products receiving a current exemption under the Missouri Clean Water Law and regulations in 10 CSR 20-6.015(3)(B)8., and are land applied in accordance with the exemption.

10. Changes in Discharges of Toxic Pollutant.
In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
    (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
        (1) One hundred micrograms per liter (100 µg/L);
        (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
        (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
        (4) One milligram per liter (1 mg/L) for antimony;
        (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
        (6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
    (b) Any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
        (1) Five hundred micrograms per liter (500 µg/l);
        (2) One milligram per liter (1 mg/l) for antimony;
        (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
        (4) The level established by the Director in accordance with 40 CFR 122.44(f).

11. Reporting of Non-Detects.
    (a) Compliance analysis conducted by the facility or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, §A, No. 4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory established reporting limit (RL) are used interchangeably in this permit.
    (b) The facility shall not report a sample result as "non-detect" without also reporting the MDL. Reporting "non-detect" without also including the MDL will be considered failure to report, which is a violation of this permit.
    (c) For the daily maximum, the facility shall report the highest value; if the highest value was a non-detect, use the less than "<" symbol and the laboratory's highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).
    (d) When calculating monthly averages, zero shall be used in place of any value(s) not detected. Where all data used in the average are below the MDL or RL, the highest MDL or RL shall be reported as "<#" for the average as indicated in item (c).

12. Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo).

13. This permit does not cover land disturbance activities.

C. SPECIAL CONDITIONS (CONTINUED)

14. This permit does not authorize the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course. The facility must contact the U.S. Army Corps of Engineers (Corps) to determine if a CWA §404 Department of Army permit or §401 water quality certification is required for the project.

15. All records required by this permit may be maintained electronically per 432.255 RSMo. These records should be maintained in a searchable format.

16. Renewal Application Requirements.
    (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days prior to the expiration date listed on page 1 of the permit.
    (b) Application materials shall include complete Form A, and Form C. If the form names have changed, then the facility should ensure they are submitting the correct forms as required by regulation
    (c) The facility may use the electronic submission system to submit the application to the Program, if available.

D. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: https://ahc.mo.gov

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0000761
WESTINGHOUSE – HEMATITE REMEDIATION SITE

The Federal Water Pollution Control Act (Clean Water Act (CWA) §402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (§301 of the Clean Water Act). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal Clean Water Act and Missouri Clean Water Law 644 RSMo as amended). MSOPs may also cover underground injection, non-discharging facilities, and land application facilities. Permits are issued for a period of five (5) years unless otherwise specified for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)2.] a factsheet shall be prepared to give pertinent information regarding applicable regulations, rationale for the development of limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or permit) listed below. A factsheet is not an enforceable part of a permit.

PART I. FACILITY INFORMATION

Facility Type: Industrial: minor, <1 MGD
SIC Code(s): 9511
NAICS Code(s): 924110
Application Date: 12/29/2020
Expiration Date: 03/31/2021
Last Inspection: 12/17/2014

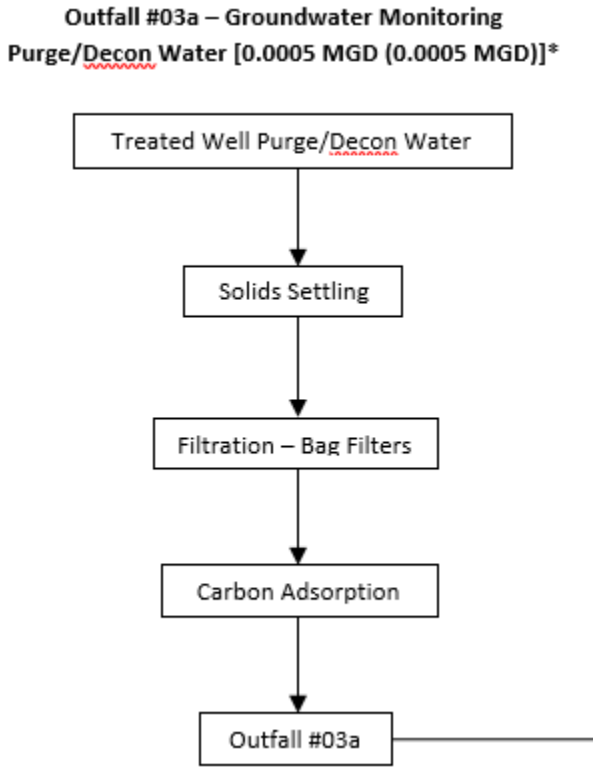
FACILITY DESCRIPTION:
Remediation site; SIC # 9511; NAICS # 924110. Former nuclear fuel rod production facility. Operations at the facility ceased in 2001. No products are currently produced, manufactured, stored, loaded, or transferred at the facility. The radiological residues at the site have been removed and the site has undergone decommissioning. The radiological license (SNM-00033) issued by the U.S. Nuclear Regulatory Commission was terminated in September 2018. Chemical contaminants remain in subsurface soil that is covered by clean fill material; no radiological contaminants remain onsite. Surface water does not contact the subsurface contaminants. This facility does not require a certified wastewater operator per 10 CSR 20-9.030 as this facility is privately owned.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#03A	500 gallons per year	0.0005 MGD	settling, filtration, carbon adsorption	wastewater from monitoring well purge water and decontamination of well sampling equipment activities

FACILITY MAP:

WATER BALANCE DIAGRAM:



FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last permit term. No numeric exceedances were noted.

The facility provided SIC code 1795; but 1795 is for Wrecking and Demolition Work which they are completed at this time. The permit writer determined 9511 for Air and Water Resource and Solid Waste Management was more applicable to the site. The change in SIC code does not change the conditions of the permit.

The facility requested outfalls #02A and #006 be removed from permitting requirements. The permit writer reviewed the current activities at the site and determined the removal of the specified outfalls was appropriate. The permit writer notes, the SIC codes are not listed in the state or federal regulations, nor is the facility description required to maintain stormwater requirements; this facility is not federally owned.

CONTINUING AUTHORITY:
The Missouri Secretary of State continuing authority charter number for this facility is FL0030061; this number was verified by the permit writer to be associated with the facility and precisely matches the continuing authority reported by the facility in an email dated 1/14/2021.

OTHER ENVIRONMENTAL PERMITS:
In accordance with 40 CFR 122.21(f)(6), the Department evaluated other environmental permits currently held by this facility. This facility has none.

REMOVAL OF RADIOLOGICAL MATERIALS:
By letter dated December 20, 2017, the NRC received a request from Westinghouse Electric Company, LLC (Westinghouse) to terminate Nuclear Regulatory Commission (NRC) Source Materials License No. SNM-00033 (ADAMS Accession No. ML17355A043). In this request, Westinghouse stated it has completed decommissioning and decontamination of the Hematite facility in accordance with its approved Decommissioning Plan (ADAMS Accession No. ML112101699). On the basis of decommissioning activities carried out by Westinghouse, the NRC evaluation of the Final Status Surveys (FSS) and Final Status Survey Report (FSSR), combined with the results of NRC's independent and confirmatory surveys, and on-site inspections, the NRC staff concluded that the site radiological levels meet the requirements in part 20 of title 10 of the Code of Federal Regulations (10 CFR), "Standards for Protection Against Radiation," section 20.1402, "Radiological criteria for unrestricted use." A safety evaluation report (SER) documenting the NRC staff's review of Westinghouse's remediation activities, the FSS, and the FSSR of the Hematite site are available in ADAMS under Accession No. ML18241A066. This SER, coupled with Westinghouse providing NRC form 314 and the records required by 10 CFR 70.51(a), documents that the requirements of 10 CFR 20.1402 and 10 CFR 70.38(k) have been met. As such, the NRC considers the site acceptable for unrestricted use, and Source Materials License No. SNM-00033 has been terminated. Dated at Rockville, Maryland, on September 28, 2018.

PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#001	Tributary to Joachim Creek	n/a	n/a	GEN	0.0 mi	07140101-0802 Middle Joachim Creek
#001	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.2 mi	

Classes are representations of hydrologic flow volume or lake basin size as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetland. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the losing stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID = Waterbody Identification: Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 100K Extant-Remaining Streams or newer; data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)3. as 100K Extent Remaining Streams.

HUC: Hydrologic Unit Code; TMDLs and lake nutrient criteria are the two most common watershed based limits. https://dnr.mo.gov/env/wpp/watersheds.htm will have additional information about the watersheds in Missouri

Designated Uses:
10 CSR 20-7.031(1)(C)1.: **ALP** = Aquatic Life Protection (formerly AQL); current uses are defined to ensure the protection and propagation of fish shellfish and wildlife, further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses ALP effluent limitations in 10 CSR 20-7.031 Table A1-B3 for all habitat designations unless otherwise specified.
10 CSR 20-7.031(1)(C)2.: Recreation in and on the water
WBC = Whole Body Contact recreation where the entire body is capable of being submerged;
WBC-A = whole body contact recreation supporting swimming uses and has public access;
WBC-B = whole body contact recreation not included in WBC-A;
SCR = Secondary Contact Recreation (like fishing, wading, and boating)
10 CSR 20-7.031(1)(C)3. to 7.:
HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish and drinking of water;
IRR = irrigation for use on crops utilized for human or livestock consumption, includes aquifers per 10 CSR 20-7.031(6)(A);

LWW = Livestock and Wildlife Watering (current narrative use is defined as LWP = Livestock and Wildlife Protection), includes aquifers per 10 CSR 20-7.031(6)(A);
DWS = Drinking Water Supply, includes aquifers per 10 CSR 20-7.031(6)(A);
IND = industrial water supply
10 CSR 20-7.031(1)(C)8. to 11.: Wetlands (10 CSR 20-7.031 Tables A1-B3 currently does not have corresponding habitat use criteria for these defined uses): WSA = storm- and flood-water storage and attenuation; WHP = habitat for resident and migratory wildlife species; WRC = recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = hydrologic cycle maintenance.
10 CSR 20-7.015(7) and 10 CSR 20-7.031(6): **GRW** = Groundwater
10 CSR 20-7.031(4): **GEN** = general criteria; acute toxicity criteria applicable to all waters even those lacking designated uses
n/a = not applicable

WATERS OF THE STATE DESIGNATIONS:
Waters of the state are divided into seven categories per 10 CSR 20-7.015(1)(B)1 through 7. The applicable water of the state category is listed below. Missouri's technology-based effluent regulations are found in [10 CSR 20-7.015] and are implemented in 10 CSR 20-7.015(2) through (8). When implementing technology regulations, considerations are made for the facility type, discharge type, and category of waters of the state. Effluent limitations may not be applicable to certain waters of the state, facility type, or discharge type. In these cases, effluent limitations may be based on a best professional judgment evaluation. The best professional judgment evaluation will take site specific conditions into consideration; including facility type, the receiving water body classification, and type of discharge. Stormwater discharges and land application sites are not directly subject to limitations found in 10 CSR 20-7.015, but may be subject to limitations determined by the best professional judgment evaluation. Effluent limitation derivations are discussed in PART IV: EFFLUENTS LIMITS DETERMINATIONS.
✓ All other waters; identified at 10 CSR 20-7.015(B)7 and 10 CSR 20-7.015(8)

EXISTING WATER QUALITY:
The previous permit required in-stream monitoring. The data show the stream is no longer effected by the surficial activities at the site, therefore in-stream monitoring is removed.

UPSTREAM OR DOWNSTREAM IMPAIRMENTS:
The permit writer has reviewed upstream and downstream stream segments of this facility for impairments.
✓ The permit writer has noted no upstream or downstream impairments near this facility.

303(D) LIST:
Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm
✓ Not applicable; this facility does not discharge to an impaired segment of a 303(d) listed stream.

TOTAL MAXIMUM DAILY LOAD (TMDL):
A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the §303(d) list, then a watershed management plan or TMDL for that watershed may be developed. The TMDL shall include the WLA calculation. http://dnr.mo.gov/env/wpp/tmdl/
✓ Not applicable; this facility does not discharge to a waterbody or watershed with a TMDL.

RECEIVING WATERBODY MONITORING REQUIREMENTS:
✓ No receiving water monitoring requirements are recommended at this time. See EXISTING WATER QUALITY section above.

WATERBODY MIXING CONSIDERATIONS:
For all outfalls, mixing zone and zone of initial dilution are not allowed per 10 CSR 20-7.031(5)(A)4.B.(I)(a) and (b), as the base stream flow does not provide dilution to the effluent.

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including: land application, discharges to a gaining stream, and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.
✓ Not applicable; the facility is an existing facility.

ANTIBACKSLIDING:
Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

- ✓ Limitations in this operating permit reissuance conform to the anti-backsliding provisions of CWA §402(o), and 40 CFR 122.44.
  - ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
    - The facility has finished surficial remediation of the soils and has provided a clean cap with vegetation. The data was reviewed, and data, accompanying satellite imagery, show the facility has sufficiently vegetated the site at this time. Special conditions require the facility to maintain the cap and fix vegetative issues as soon as practicable to prevent pollution from entering waters of the state, in compliance with the Federal Clean Water Act and Missouri Clean Water Law. These actions are available to the facility under 40 CFR 122.44(k) under this permit. The SWPPP requirements were removed based on the current status of the facility.
  - ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under CWA §402(a)(1)(b).
    - The previous permit special condition indicated spills from hazardous waste substances must be reported to the department. However, this condition is covered under standard conditions therefore was removed from special conditions.
    - The previous permit special condition stated: "Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticides shall be in a manner consistent with its label."
      The permit writer has determined this special condition was outside the scope of NPDES permitting and was removed.

ANTIDEGRADATION REVIEW:
Process water discharges with new, altered, or expanding flows, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the Department prior to establishing, altering, or expanding discharges. See http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm

- ✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) which must include an alternative analysis (AA) of the BMPs. The SWPPP must be developed, implemented, updated, and maintained at the facility. Failure to implement and maintain the chosen alternative, is a permit violation. The AA is a structured evaluation of BMPs to determine which are reasonable and cost effective. Analysis should include practices designed to be 1) non-degrading, 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must demonstrate why "no discharge" or "no exposure" are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address BMP failures or benchmark exceedances. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3). For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the AA performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

- ✓ Applicable; the facility must review and maintain stormwater BMPs as appropriate.

BEST MANAGEMENT PRACTICES:
Minimum site-wide best management practices are established in this permit to ensure all facilities are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with 644.011 and 644.016 (17) RSMo.

COST ANALYSIS FOR COMPLIANCE (CAFCOM):
Pursuant to 644.145 RSMo, when incorporating a new requirement for discharges from publicly owned facilities, or when enforcing provisions of this chapter or the CWA, pertaining to any portion of a publicly owned facility, the Department shall make a finding of affordability on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the CWA. This process is completed through a CAFCom. Permits not including new requirements may be deemed affordable.

- ✓ The Department is not required to complete a cost analysis for compliance because the facility is not publicly owned.

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:
This special condition reiterates the federal rules found in 40 CFR 122.44(f) for technology treatments and 122.42(a)(1) for all other toxic substances. In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as "…any pollutant listed as toxic under section 307(a)(1)" or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters listed in 40 CFR 401.15 and any other toxic parameter the Department determines is applicable for reporting under these rules in the permit. The facility should also consider any other toxic pollutant in the discharge as reportable under this condition and must report all increases to the Department as soon as discovered in the effluent. The Department may open the permit to implement any required effluent limits pursuant to CWA §402(k) where sufficient data was not supplied within the application but was supplied at a later date by either the permittee or other resource determined to be representative of the discharge, such as sampling by Department personnel.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.
✓ Not applicable; the facility is not currently under Water Protection Program enforcement action.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:
Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.
✓ Not applicable; this facility utilizes chemical toilets on site. These are cleaned as needed. No permission to discharge at this time.

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.
Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).
✓ Not applicable; this facility utilizes chemical toilets on site. These are cleaned as needed. No permission to discharge at this time.

EFFLUENT LIMITATIONS:
Effluent limitations derived and established for this permit are based on current operations of the facility and applied per 10 CSR 20-7.015(9)(A) as applicable. Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:
The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use electronic data reporting. To comply with the federal rule, the Department is requiring all facilities to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a facility must first submit an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. A request must be made for each operating permit. An approved waiver is not transferable. The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

To assist the facility in entering data into the eDMR system, the permit describes limit sets designators in each table in Part A of the permit. Facility personnel will use these identifiers to ensure data entry is being completed appropriately. For example, M for monthly, Q for quarterly, and others as identified.

FEDERAL EFFLUENT LIMITATION GUIDELINE:
Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.
✓ The facility does not have an associated ELG.

GENERAL CRITERIA CONSIDERATIONS:
In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations within the permit to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, 644.076.1 RSMo, as well as Part I §D – Administrative Requirements of Standard Conditions included in this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of §§644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

GROUNDWATER MONITORING:
Groundwater is a water of the state according to 644.016(27) RSMo, is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6), and must be protected accordingly.
✓ This facility is monitoring the groundwater at the site for the hazardous waste program.

LAND APPLICATION:
Land application, or surficial dispersion of wastewater and/or sludge, is performed by facilities to maintain a basin as no-discharge. Requirements for these types of operations are found in 10 CSR 20-6.015; authority to regulate these activities is from 644.026 RSMo.
✓ Not applicable; this permit does not authorize operation of a surficial land application system to disperse wastewater or sludge.

LAND DISTURBANCE:
Land disturbance, sometimes called construction activities, are actions which cause disturbance of the root layer or soil; these include clearing, grading, and excavating of the land. 40 CFR 122.26(b)(14) and 10 CSR 20-6.200(3) requires permit coverage for these activities. Coverage is not required for facilities when only providing maintenance of original line and grade, hydraulic capacity, or to continue the original purpose of the facility.
✓ Not applicable; this permit does not provide coverage for land disturbance activities. The facility may obtain a separate land disturbance permit (MORA) online at https://dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm; MORA permits do not cover disturbance of contaminated soils, however, site specific permits such as this one can be modified to include appropriate controls for land disturbance of contaminated soils by adding site-specific BMP requirements and additional outfalls.

MAJOR WATER USER:
Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statues Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). https://dnr.mo.gov/pubs/pub2236.htm
✓ Applicable; this facility is a major water user and is registered with the state as 57002394 but no longer withdraws 70 gpm/0.1 MGD due to plant closure.

MODIFICATION REQUESTS:
Facilities have the option to request a permit modification from the Department at any time under RSMo 644.051.9. Requests must be submitted to the Water Protection Program with the appropriate forms and fees paid per 10 CSR 20-6.011. It is recommended facilities contact the permit writer early so the correct forms and fees are submitted, and the modification request can be completed in a timely fashion. Minor modifications, found in 40 CFR 122.63, are processed without the need for a public comment period. Major modifications, those requests not explicitly fitting under 40 CFR 122.63, do require a public notice period. Modifications to permits should be completed when: a new pollutant is found in the discharge; operational or functional changes occur which affect the technology, function, or outcome of treatment; the facility desires alternate numeric benchmarks; or other changes are needed to the permit.

Modifications are not required when utilizing or changing additives in accordance with the publication https://dnr.mo.gov/pubs/pub2653.htm nor are required when a temporary change or provisional discharge has been authorized by the regional office. While provisional discharges may be authorized by the regional office, they will not be granted for more than the time necessary for the facility to obtain an official modification from the Water Protection Program. Temporary provisional discharges due to weather events or other unforeseen circumstances may or may not necessitate a permit modification. The facility may ask for a

Compliance Assistance Visit (CAV) from the regional office to assist in the decision-making process; CAVs are provided free to the permitted entity.

NUTRIENT MONITORING:
Nutrient monitoring is required for facilities characteristically or expected to discharge nutrients (nitrogenous compounds and/or phosphorus) when the design flow is equal to or greater than 0.1 MGD per 10 CSR 20-7.015(9)(D)8. This requirement is applicable to all Missouri waterways.
✓ This facility has not disclosed nutrients are present in the discharge, therefore no nutrient monitoring is required at this time.

Water quality standards per 10 CSR 20-7.031(5)(N) describe nutrient criteria requirements assigned to lakes (which include reservoirs) in Missouri, equal to or greater than 10 acres during normal pool conditions. The Department's Nutrient Criteria Implementation Plan (NCIP) may be reviewed at: https://dnr.mo.gov/env/wpp/rules/documents/nutrient-implementation-plan-final-072618.pdf Discharges of wastewater in to lakes or lake watersheds designated as L1 (drinking water use) are prohibited per 10 CSR 20-7.015(3)(C).
✓ Not applicable; this facility does not discharge in a lake watershed or the lake is less than 10 acres.

OIL/WATER SEPARATORS:
Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.
✓ Not applicable; the facility has not disclosed the use of any oil water separators they wish to include under the NPDES permit at this facility and therefore oil water separator tanks are not authorized by this permit.

OPERATOR CERTIFICATION REQUIREMENTS:
Operators or supervisors of operations at regulated domestic wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9 and any other applicable state law or regulation.
✓ Not applicable; this facility is not required to have a certified operator. This permit does not cover domestic wastewater or the domestic wastewater population equivalent (PE) is less than two hundred (200) individuals. Additionally, this facility is not owned or operated by a municipality, public sewer district, county, public water supply district, or private sewer company regulated by the Public Service Commission, or operated by a state or federal agency. Private entities are exempted from the population equivalent requirement unless the Department has reason to believe a certified operator is necessary.

PRETREATMENT:
This permit does not regulate pretreatment requirements for facilities discharging to an accepting permitted wastewater treatment facility. If applicable, the receiving entity (the publicly owned treatment works - POTW) is to ensure compliance with any effluent limitation guidelines for pretreatment listed in 40 CFR Subchapter N per 10 CSR 20-6.100. Pretreatment regulations per 644.016 RSMo are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities.
✓ Not applicable, this facility does not discharge industrial wastewater to a POTW. Domestic wastewater is not subject to pretreatment requirements.

REASONABLE POTENTIAL (RP):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit in mixing zones. If the permit writer determines any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). Permit writers may use mathematical reasonable potential analysis (RPA) using the Technical Support Document for Water Quality Based Toxics Control (TSD) methods (EPA/505/2-90-001) as found in Section 3.3.2, or may also use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD.
✓ Applicable; the permit writer conducted an RPD on applicable parameters within the permit. See Part IV: Effluent Limits Determinations below. There were not enough data to sufficiently complete an RPA and parameters were identified as applicable to the site based on hazardous waste clean-up conditions.

RENEWAL REQUIREMENTS:
The renewal special condition permit requirement is designed to guide the facility to prepare and include all relevant and applicable information in accordance with 10 CSR 20-6.010(7)(A)-(C), and if applicable, federal regulations. The special condition may not include all requirements and requests for additional information may be made at the time of permit renewal under 644.051.13(5) RSMo and 40 CFR 122.21(h). Prior to submittal, the facility must review the entire submittal to confirm all required information and

data is provided; it is the facility's responsibility to discern if additional information is required. Failure to fully disclosure applicable information with the application or application addendums may result in a permit revocation per 10 CSR 20-6.010(8)(A) and may result in the forfeiture of permit shield protection authorized in 644.051.16 RSMo.

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges, such as wastewater discharges, shall be permitted with daily maximum and monthly average limits. Minimum sampling frequency for all parameters is annually per 40 CFR 122.44(i)(2).

SAMPLING TYPE JUSTIFICATION:
Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others. For further information on sampling and testing methods see 10 CSR 20-7.015(9)(D)2.

SCHEDULE OF COMPLIANCE (SOC):
A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 and 10 CSR 20-7.031(11) providing certain conditions are met. An SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed in accordance with 40 CFR 125.3.
- For a newly constructed facility in most cases per 644.029 RSMo. Newly constructed facilities must meet all applicable effluent limitations (technology and water quality) when discharge begins. New facilities are required to install the appropriate control technologies as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be specifically granted for conducting these activities.

In order to provide guidance in developing SOCs, and to attain a greater level of consistency, the Department issued a policy on development of SOCs on October 25, 2012. The policy provides guidance to permit writers on standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

✓ Not applicable; this permit does not contain a SOC.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING:
Per 260.505 RSMo, any emergency involving a hazardous substance must be reported to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. http://dnr.mo.gov/env/esp/spillbill.htm

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

SLUDGE – INDUSTRIAL:
Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and any material derived from industrial sludge. Industrial sludge could also be derived from lagoon dredging or other similar maintenance activities.

✓ Not applicable; industrial sludge is not generated at this facility.

STANDARD CONDITIONS:
The standard conditions Part I attached to this permit incorporate all sections of 10 CSR 20-6.010(8) and 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the facility to ascertain compliance with this permit, state regulations, state statues, federal regulations, and the Clean Water Act. Standard Conditions Part III, if attached to this permit, incorporate requirements dealing with domestic wastewater, domestic sludge, and land application of domestic wastes.

STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS:
Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater-only discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) §3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater-only outfalls will generally only contain a maximum daily limit (MDL), a benchmark, or a monitoring requirement as dictated by site specific conditions, the BMPs in place, the BMPs proposed, past performance of the facility, and the receiving water's current quality.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer, if there is no RP for water quality excursions.
✓ Not applicable; this facility's SIC code does not require stormwater monitoring per 40 CFR 122.26(b)(14) or 10 CSR 20-6.200.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):
A SWPPP must be prepared by the facility if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff.
✓ Not applicable; this facility's SIC code does not require stormwater monitoring per 40 CFR 122.26(b)(14).

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:
Please review Standard Conditions Part 1, §A, No. 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A facility is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

UNDERGROUND INJECTION CONTROL (UIC):
The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to §§1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by 577.155 RSMo; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in 577.155 RSMo; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the facility shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: http://dnr.mo.gov/forms/780-1774-f.pdf Single family residential septic systems and non-residential septic systems used solely for sanitary waste and having the capacity to serve fewer than 20 persons a day are excluded from the UIC requirements (40 CFR 144.81(9)).
✓ Not applicable; the facility is performing UIC at this site under the supervision of the Hazardous Waste Program.

VARIANCE:
Per the Missouri Clean Water Law §644.061.4, variances shall be granted for such period of time and under such terms and conditions as specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141. Thermal variances are regulated separately and are found under 644.
✓ Not applicable; this permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:
As per [10 CSR 20-2.010; definitions], the WLA is the maximum amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A).

✓ Applicable; wasteload allocations for toxic parameters were calculated using water quality criteria or water quality model results and by applying the dilution equation below; WLAs are calculated using the *Technical Support Document For Water Quality-Based Toxics Control* or "TSD" EPA/505/2-90-001; 3/1991, §4.5.5.

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

- Acute wasteload allocations designated as daily maximum limits (MDL) were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).
- Chronic wasteload allocations designated as monthly average limits (AML) were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ).
- Number of Samples "n": effluent quality is determined by the underlying distribution of daily values, determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying assumption which should be, at a minimum, targeted to comply with the values dictated by the WLA. Therefore, it is recommended the actual planned frequency of monitoring be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed uses an assumed number of samples "n = 4".

WASTELOAD ALLOCATION (WLA) MODELING:
Facilities may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

✓ Not applicable; a WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARD REVISION:
In accordance with 644.058 RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

✓ This operating permit does not contain requirements for a water quality standard changing twenty-five percent or more since the previous operating permit.

PART IV. EFFLUENT LIMIT DETERMINATIONS

OUTFALL #03A – DECON AND PURGE WELL WASTEWATER

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
COD	MG/L	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
PH ǂ	SU	6.5 TO 9.0	6.5 to 9.0	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	MG/L	45	30	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ARSENIC, TOTAL RECOVERABLE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)							
BENZO(A)ANTHRACENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
BENZO(A)PYRENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
BENZO(B)FLUORANTHENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
INDENO(1,2,3-CD)PYRENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL PAHS	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
VOLATILE ORGANIC COMPOUNDS (VOCS)							
CIS-1,2 DICHLOROETHYLENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TETRACHLOROETHYLENE (PCE)	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TRANS-1,2 DICHLOROETHYLENE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TRICHLOROETHYLENE (TCE)	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
VINYL CHLORIDE	µg/L	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

* monitoring and reporting requirement only
† report the minimum and maximum pH values; pH is not to be averaged
TR total recoverable

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow
In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD), quarterly monitoring continued from previous permit.

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Monitoring is included using the permit writer's best professional judgment. The hazardous substances at this site can cause or contribute to a depletion of dissolved oxygen in the discharge. Monitoring this constituent will indicated the presence of hazardous pollutants in the discharge and whether those pollutants have the potential to stress the aquatic life by reducing available oxygen levels in the receiving waterbody.

pH
6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues,

human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams.

Total Suspended Solids (TSS)
Daily maximum of 45 mg/L and monthly average of 30 mg/L. These were originally established as technology-based effluent limitations. The DMR data show that the treatment is capable of meeting these TBELs. For this reason, the TBELs will remain in the permit at this time.

METALS:

Arsenic, Total Recoverable
Monitoring only included. This is a constituent of the Record of Decision (ROD) for the hazardous waste cleanup operation. The previous permit required monitoring of this pollutant at an instream sampling location. However, based on the permit application and the water balance diagram found in Part I above, the groundwater and stormwater remediation is occurring prior to Outfall #03a. It seems more appropriate to monitor for the hazardous pollutants listed in the ROD at the end of the treatment train. This will indicate whether or not the technology treating contaminated groundwater and stormwater is sufficiently removing pollutants at a level that is protective of the environment and waters of the state.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS):

Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Total PAHs
Monitoring only included. There are constituents of the Record of Decision (ROD) for the hazardous waste cleanup operation. The previous permit required monitoring of this pollutant at an instream sampling location. However, based on the permit application and the water balance diagram found in Part I above, the groundwater and stormwater remediation is occurring prior to outfall #03A. It seems more appropriate to monitor for the hazardous pollutants listed in the ROD at the end of the treatment train. This will indicate whether or not the technology treating contaminated groundwater and stormwater is sufficiently removing pollutants at a level that is protective of the environment and waters of the state.

VOLATILE ORGANIC COMPOUNDS (VOCS):

Cis-1,2-dichloroethylene, Tetrachloroethylene (Perchloroethylene) (PCE), Trans-1,2-dichloroethylene, Trichloroethylene (TCE), Vinyl Chloride
Monitoring only included. There are constituents of the Record of Decision (ROD) for the hazardous waste cleanup operation. The previous permit required monitoring of this pollutant at an instream sampling location. However, based on the permit application and the water balance diagram found in Part I above, the groundwater and stormwater remediation is occurring prior to outfall #03A. It seems more appropriate to monitor for the hazardous pollutants listed in the ROD at the end of the treatment train. This will indicate whether or not the technology treating contaminated groundwater and stormwater is sufficiently removing pollutants at a level that is protective of the environment and waters of the state.

PART V. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:
Permits are normally issued on a five-year term, but to achieve watershed synchronization some permits will need to be issued for less than the full five years as allowed by regulation. The intent is all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf. This will allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than two years old, such data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

✓ This permit will maintain synchronization by expiring in 5 years.

PUBLIC NOTICE:
The Department shall give public notice a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and facility must be notified of the denial in writing. http://dnr.mo.gov/env/wpp/permits/pn/index.html The Department must issue public notice of a pending operating permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wishing to submit comments regarding this proposed operating permit, please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments. All comments must be in written form.

✓ The Public Notice period for this operating permit starts April 2, 2021 and ends May 3, 2021. No comments were received.

DATE OF FACT SHEET: MAY 4, 2021
COMPLETED BY:
PAM HACKLER, ENVIRONMENTAL SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 526-3386
pam.hackler@dnr.mo.gov

STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions
Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements**.
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

4. **Test Procedures**. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), 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 the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
   a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
   b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. 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 notification requirements under 40 CFR 122.42;
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.

c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **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 Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: 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 production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. 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 paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. 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 adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   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 paragraph 3. 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 a 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:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. **Duty to Reapply.**
   a. 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.
   b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
   c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity 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.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance**. 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 back-up 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.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. 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.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department 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 Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department 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 Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon 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 the 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; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law 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 pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

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

AP36027

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI CLEAN WATER LAW

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED
JET PAY CONFIRMATION NUMBER	

PLEASE READ ALL THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM. SUBMITTAL OF AN INCOMPLETE APPLICATION MAY RESULT IN THE APPLICATION BEING RETURNED.

IF YOUR FACILITY IS ELIGIBLE FOR A NO EXPOSURE EXEMPTION:
Fill out the No Exposure Certification Form (Mo 780-2828): https://dnr.mo.gov/forms/780-2828-f.pdf

1. REASON FOR APPLICATION:

- ☐ a. This facility is now in operation under Missouri State Operating Permit (permit) MO – _____, is submitting an application for renewal, and there is no proposed increase in design wastewater flow. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ b. This facility is now in operation under permit MO – _____, is submitting an application for renewal, and there is a proposed increase in design wastewater flow. Antidegradation Review may be required. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ c. This is a facility submitting an application for a new permit (for a new facility). Antidegradation Review may be required. New permit fee is required.
- ☑ d. This facility is now in operation under Missouri State Operating Permit (permit) MO – 000761 and is requesting a modification to the permit. Antidegradation Review may be required. Modification fee is required.

2. FACILITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Hematite Remediation Project		314-810-3300	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
3300 State Road P	Festus	MO	63028

3. OWNER

NAME		TELEPHONE NUMBER WITH AREA CODE	
Westinghouse Electric Company LLC		412-374-3289	
EMAIL ADDRESS			
kelmecvj@westinghouse.com			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
1000 Westinghouse Drive	Cranberry Township	PA	16066

4. CONTINUING AUTHORITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Westinghouse Electric Company LLC		412-374-3289	
EMAIL ADDRESS			
kelmecvj@westinghouse.com			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
1000 Westinghouse Drive	Cranberry Township	PA	16066

5. OPERATOR CERTIFICATION

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Westinghouse Electric Company LLC	N/A	314-770-3011	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
3300 State Road P	Festus	MO	63028

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Kevin Harris	Environmental Manager	314-770-3011
E-MAIL ADDRESS		
kevin.m.harris@leidos.com		

7. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary.

NAME			
Tami Grant			
ADDRESS	CITY	STATE	ZIP CODE
3470 Wrong Road	Festus	MO	63028

8. ADDITIONAL FACILITY INFORMATION

8.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)
For Universal Transverse Mercator (UTM), use Zone 15 North referenced to North American Datum 1983 (NAD83)

02a SE ¼ SW ¼ Sec 19 T 40N R 5E Jefferson County
UTM Coordinates Easting (X): 720893 Northing (Y): 4231734

03a SE ¼ SW ¼ Sec 19 T 40N R 5E Jefferson County
UTM Coordinates Easting (X): 720955 Northing (Y): 4231885

006 SE ¼ SW ¼ Sec 19 T 40N R 5E Jefferson County
UTM Coordinates Easting (X): 721251 Northing (Y): 4232082

004 ____ ¼ ____ ¼ Sec ____ T ____ R ____ ____ County
UTM Coordinates Easting (X): ____ Northing (Y): ____

8.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.
Primary SIC 1795 and NAICS ____ SIC ____ and NAICS ____
SIC ____ and NAICS ____ SIC ____ and NAICS ____

9. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION

A. Is this permit for a manufacturing, commercial, mining, solid/hazardous waste, or silviculture facility? YES ☐ NO ☑
If yes, complete Form C.

B. Is the facility considered a "Primary Industry" under EPA guidelines (40 CFR Part 122, Appendix A) : YES ☐ NO ☑
If yes, complete Forms C and D.

C. Is wastewater land applied? YES ☐ NO ☑
If yes, complete Form I.

D. Are sludge, biosolids, ash, or residuals generated, treated, stored, or land applied? YES ☐ NO ☑
If yes, complete Form R.

E. Have you received or applied for any permit or construction approval under the CWA or any other environmental regulatory authority? YES ☐ NO ☑
If yes, please include a list of all permits or approvals for this facility.

F. Do you use cooling water in your operations at this facility? YES ☐ NO ☑
If yes, please indicate the source of the water: ____

G. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

10. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit http://dnr.mo.gov/env/wpp/edmr.htm to access the Facility Participation Package.

☐ - You have completed and submitted with this permit application the required documentation to participate in the eDMR system.

☑ - You have previously submitted the required documentation to participate in the eDMR system and/or you are currently using the eDMR system.

☐ - You have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.

11. FEES

Permit fees may be paid by attaching a check, or online by credit card or eCheck through the JetPay system. Use the URL provided to access JetPay and make an online payment: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/

12. 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.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Val J. Kelmeckis, Global Environmental Manager	412-374-3289
SIGNATURE	DATE SIGNED
Val J. Kelmeckis	12/4/2020

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT

1. Check which option is applicable. **Do not check more than one item.** Nondomestic permit refers to permits issued by the Department of Natural Resources' Water Protection Program for all **nondomestic** wastewater treatment facilities, including all industry, stormwater, and Class IA Concentrated Animal Feeding Operations (CAFO). **This includes all nondomestic wastewater treatment facilities that incorporate domestic wastewater into the operating permit.**

   For some new or modified permits, a construction permit is required prior to beginning construction at the facility. For other permits, an exemption is provided from construction permit requirements. Please review the requirements at http://dnr.mo.gov/env/wpp/permits/ww-construction-permitting.htm. If the facility is for wastewater treatment and is designed for greater than 22,500 gallons per day, the engineering report must be submitted and approved prior to submittal of the application, fee, plans, and specifications. A summary of design data must be submitted with the engineering plans and specifications.

   For new wastewater facilities, some wastewater permit modifications, and some permit renewals with proposed increase in design wastewater flow, an antidegradation review may be required. Please visit https://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm for more information

2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersection, highway, county road, etc.

3. Owner - Provide the legal name and address of owner or company.

4. Continuing Authority – A continuing authority is a company, business, entity, or person(s) operating the facility and/or ensuring compliance with the permit requirements. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit https://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf. A continuing authority's name must be listed **exactly** as it appears on the Missouri Secretary of State's (SoS's) webpage: https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0, unless the continuing authority is an individual(s), government, or otherwise not required to register with the SoS.

5. Operator - Provide the name, certificate number, mailing address and telephone number of the person operating the facility, if required by regulation (10 CSR 20-9.020(2)). Most industrial facilities will not be required to have a certified wastewater operator.

6. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility, with the facts reported in this application, and who can be contacted by the department, if necessary. This person will need to be available to respond to emails which will include pre-public notice drafts of permits.

7. Please provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, please indicate the location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner that the discharge flows to after leaving the right-of-way. For no discharge facilities, provide this information for the location where discharge would flow if there was one. For land application sites, include the owners of the land application sites and all adjacent landowners.

8.1 An outfall is the point at which wastewater or stormwater is discharged. Outfalls should be given in terms of the legal description of the facility. Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers a GPS receiver is used at the outfall pipe and the displayed coordinates submitted. If access to a GPS receiver is not available, please use a mapping system to approximate the coordinates.

8.2 List only your primary Standard Industrial Classification (SIC), and North American Industry Classification System (NAICS) code for each outfall. The SIC system was devised by the U.S. Office of Management and Budget to cover all economic activities. To find the correct SIC code, an applicant may check his or her unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is that of the operation that generates the most revenue. If this information is not available, the number of employees or, secondly, production rate may be used to determine your SIC code. Additional information for Standard Industrial Codes can be found at www.osha.gov/pls/imis/sicsearch.html and for the North American Industry Classification System at www.census.gov/naics or contact the appropriate Department of Natural Resources regional office.

INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT (CONTINUED)

9. If you answer yes to A, B, C, D, or E, then you must complete and file the supplementary form(s) indicated. 40 CFR 122.21(f) and (g) requires the facility to submit the information requested herein. For 9.E., please include all permits or approvals, including construction, issued under the Hazardous Waste Management Program (RCRA), the Safe Drinking Water Act, Clean Air Act, or any other permits issued under the Clean Water Act.

   A U.S. Geological Survey 1" = 2,000' scale map must be submitted with the permit application showing all outfalls, the receiving stream and the location of the downstream property owners. This type of map can be obtained from the Missouri Department of Natural Resources' Geological Survey in Rolla at 573-368-2100 or various online mapping applications.

10. Electronic Discharge Monitoring Report (eDMR) Submission System – Visit the eDMR site at http://dnr.mo.gov/env/wpp/edmr.htm and click on the "Facility Participation Package" link. The eDMR Permit Holder and Certifier Registration Form and information about the eDMR system can be found in the Facility Participation Package.

    Waivers from electronic reporting may be granted by the Department per 40 CFR 127.15 under certain, special circumstances. A written request must be submitted to the Department for approval. Waivers may be granted to facilities owned or operated by:
    A. Members of religious communities that choose not to use certain technologies or
    B. Permittees located in areas with limited broadband access. The National Telecommunications and Information Administration (NTIA) in collaboration with the Federal Communications Commission (FCC) have created a broadband internet availability map: http://www.broadbandmap.gov/. Please contact the department if you need assistance.

11. Please visit https://dnr.mo.gov/pubs/pub2564.htm for permit fees. This form must be submitted with the application fee if requesting a new permit, permit modification, or permit transfer.

    Fee schedules are listed in regulation at 10 CSR 20-6.011, https://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf.

    Incomplete permit applications and/or related engineering documents will be returned by the department if they are not completed in the time frame established in a comment letter from the department to the owner. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.

12. Certification/Signature - All applications must be signed as follows and the signature must be **original**:
    A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
    B. For a partnership or sole proprietorship, by a general partner or the proprietor.
    C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

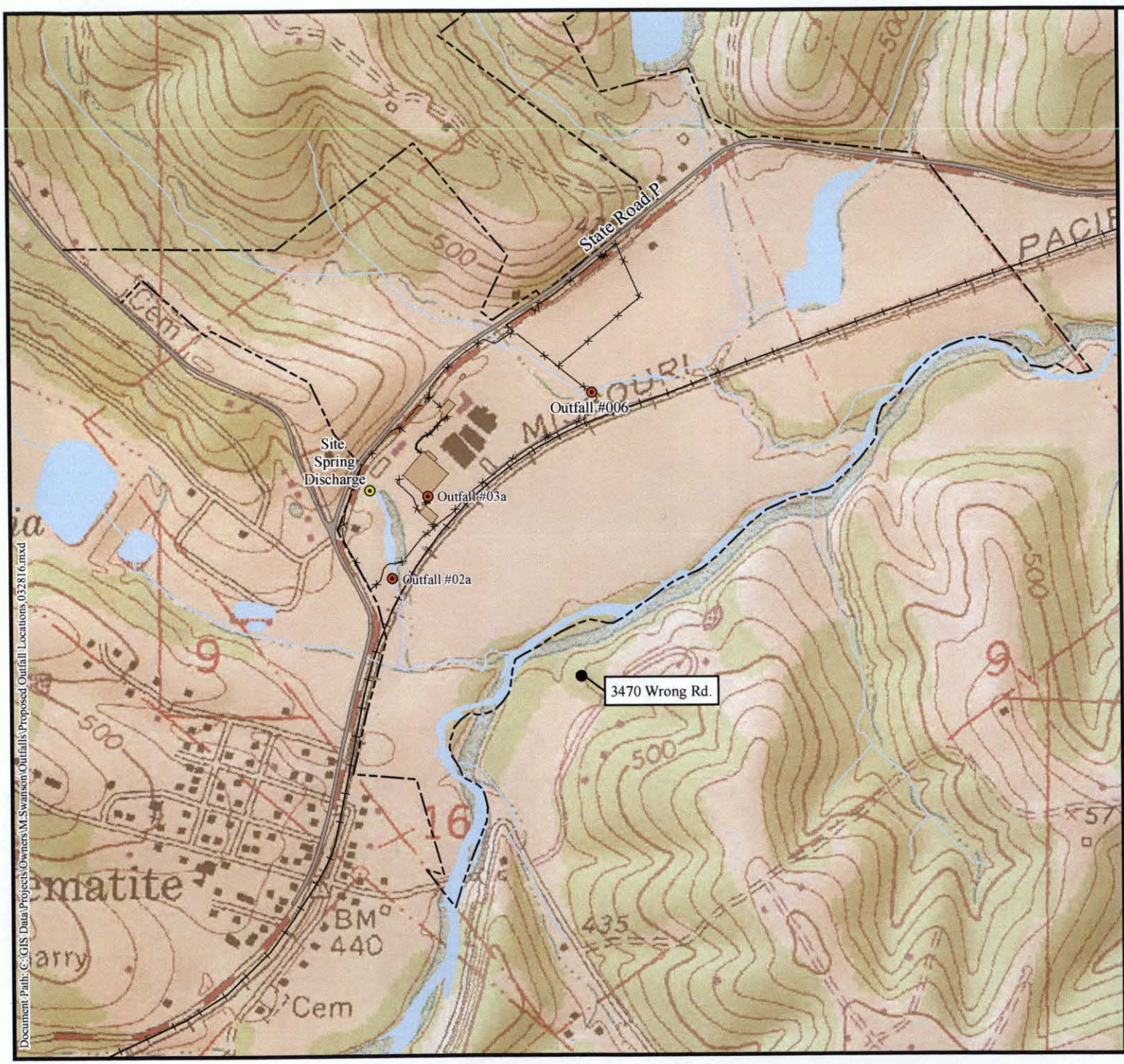
MAIL COMPLETED FORM AND FEES TO:

Missouri Department Of Natural Resources
Water Protection Program
Water Pollution Control Branch
ATTN: Operating Permits Section
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

If there are any questions concerning this form, contact the Department of Natural Resources' Water Protection Program, Operating Permits Section at 800-361-4827 or 573-522-4502.

ATTACHMENT 2

Westinghouse Outfall Locations Drawings



LEGEND:

- Existing Outfall Location
- Site Spring
- State Road P
- Buildings
- Property Boundary
- Surface Water
- Streams
- Railroad
- RR Spur
- Fence

N
W E
S

0 440 880 Feet

Figure 1
Outfall Locations

Requested By: M. Swanson	Document/Reason: Environmental Monitoring

Hematite Decommissioning Project
Jefferson County
Hematite, MO

Prepared By:	Rev:	Size:	Date:
SDJ	0	8.5x11	04-05-16

Document Path: C:\Users\caseltona\Desktop\NPDES Permit Map.mxd

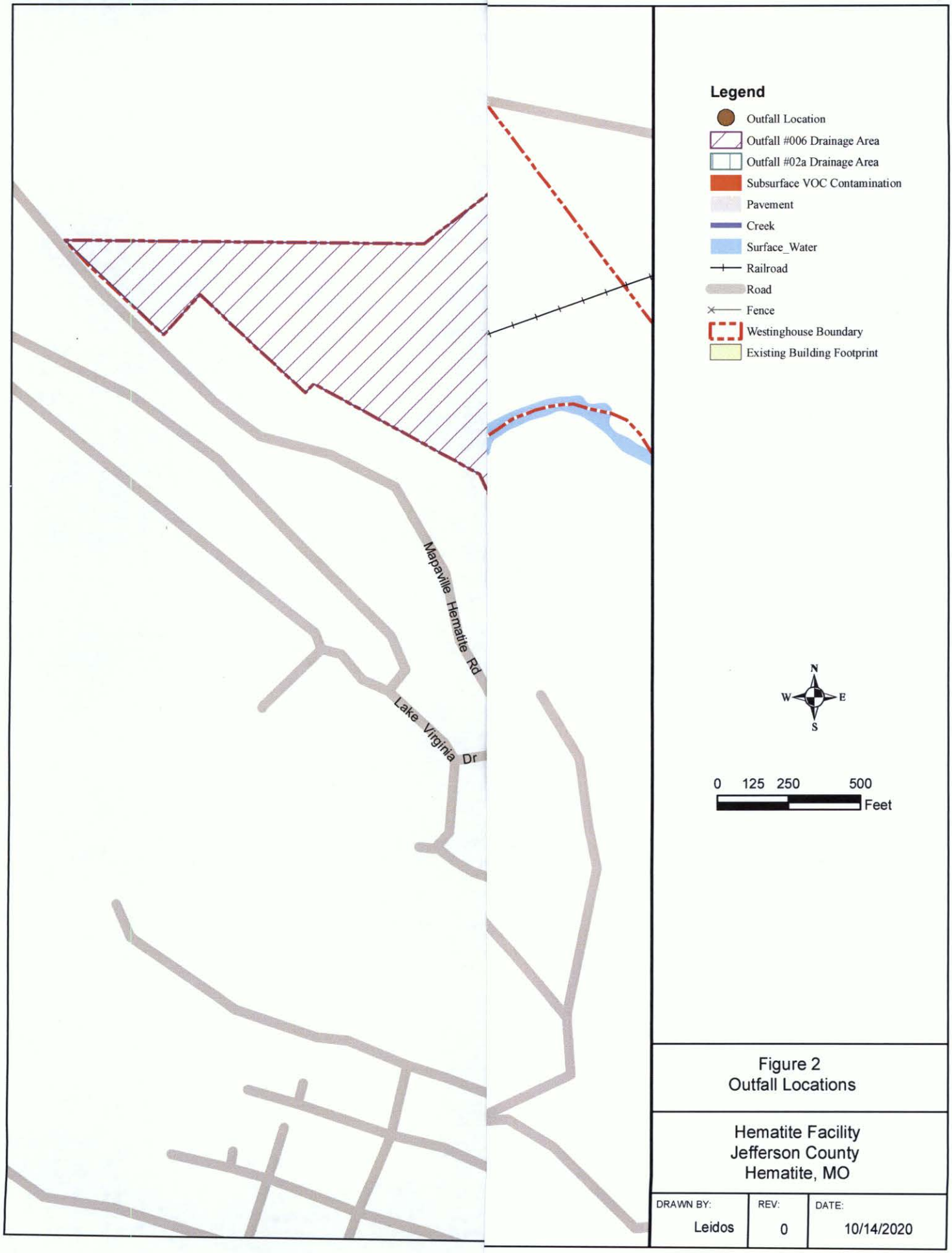


Figure 2
Outfall Locations

Hematite Facility
Jefferson County
Hematite, MO

DRAWN BY:	REV:	DATE:
Leidos	0	10/14/2020

Table 1

UTM Coordinates for Outfall Locations

Outfall Location	UTM Coordinates	
	Easting	Northing
Outfall #02a	720893	4231734
Outfall #03a	720955	4231885
Outfall #006	721251	4232082

ATTACHMENT 3

Form C
"Application for Discharge Permit –
Manufacturing, Commercial, Mining, Silviculture Operations, Process and Stormwater"

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH

FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, AND STORMWATER

GENERAL INFORMATION (PLEASE SEE INSTRUCTIONS)

1.0 NAME OF FACILITY

Hematite Remediation Project (Previous Name: Hematite Decommissioning Project)

1.1 THIS FACILITY IS OPERATING UNDER MISSOURI STATE OPERATING PERMIT (MSOP) NUMBER:

MO-0000761

1.2 IS THIS A NEW FACILITY? PROVIDE CONSTRUCTION PERMIT (CP) NUMBER IF APPLICABLE.

N/A

1.3 Describe the nature of the business, in detail. Identify the goods and services provided by the business. Include descriptions of all raw, intermediate, final products, byproducts, or waste products used in the production or manufacturing process, stored outdoors, loaded or transferred and any other pertinent information for potential sources of wastewater or stormwater discharges.

Former nuclear fuel rod production facility. Operations at the facility ceased in 2001. No products are currently produced, manufactured, stored, loaded or transferred at the facility. The radiological residues at the site have been removed and the site has undergone decommissioning. The radiological license (SNM-00033) issued by the U.S. Nuclear Regulatory Commission was terminated in September 2018. Chemical contaminants remain in subsurface soil that is covered by clean fill material. Surface water does not contact the subsurface contaminants. Therefore, termination of Outfalls #02A and #006 is requested.

FLOWS, TYPE, AND FREQUENCY

2.0 Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average and maximum flows between intakes, operations, treatment units, evaporation, public sewers, and outfalls. If a water balance cannot by determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

2.1 For each outfall (1) below, provide: (2) a description of all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, stormwater runoff, and any other process or non-process wastewater, (3) the average flow and maximum flow (put max in parentheses) contributed by each operation and the sum of those operations, (4) the treatment received by the wastewater, and (5) the treatment type code. Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW; INCLUDE ALL PROCESSES AND SUB PROCESSES AT EACH OUTFALL	3. AVERAGE FLOW AND (MAXIMUM FLOW), INCLUDE UNITS.	4. TREATMENT DESCRIPTION	5. TREATMENT CODES FROM TABLE A
02a	Spring and stormwater	0.0.53 (1.6) mgd	Settling (Site Pond)	1-U
03a	Groundwater impacted by residual chemical	0.0005 (0.0005)mgd	Water Treatment	
	contamination (monitoring well purge water and		850 gal holding/settling tank	1-G
	decontamination water)		2 bag filters (5-10 micron)	1-N
			2-55 gal carbon drums	2A
006	Stormwater	0.20 (1.90) mgd	None	N/A

Attach additional pages if necessary.

2.2 INTERMITTENT DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharges described in items 2.0 or 2.1 intermittent or seasonal?

☑ Yes *(complete the following table)* ☐ No *(go to section 2.3)*

1. OUTFALL NUMBER	2. OPERATION(S) CONTRIBUTING FLOW	3. FREQUENCY		4. FLOW				C. DURATION *(in days)*
				A. FLOW RATE *(in mgd)*		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK *(specify average)*	B. MONTHS PER YEAR *(specify average)*	1. MAXIMUM DAILY	2. LONG TERM AVERAGE	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
03a	Treated groundwater from monitoring	N/A	1 day/yr	0.005mgd	.005mgd	N/A	.005gal/yr	1 day/yr
	efforts							

2.3 PRODUCTION

A. Does an effluent limitation guideline (ELG) promulgated by EPA under section 304 of the Clean Water Act apply to your facility? Indicate the part and subparts applicable.

☐ Yes 40 CFR_____ Subpart(s) _____ ☑ No *(go to section 2.5)*

B. Are the limitations in the effluent guideline(s) expressed in terms of production (or other measure of operation)? Describe in C below.

☐ Yes *(complete C.)* ☐ No *(go to section 2.5)*

C. If you answered "yes" to B, list the quantity representing an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline and indicate the affected outfalls.

A. OUTFALL(S)	B. QUANTITY PER DAY	C. UNITS OF MEASURE	D. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*

2.4 IMPROVEMENTS

A. Are you required by any federal, state, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ Yes *(complete the following table)* ☐ No *(go to 2.6)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
			A. REQUIRED	B. PROJECTED
MO-0000761		Remediate site per Record of Decision for OU-1	N/A	2025
USNRC SNM-000033		Decommission site for NRC license termination	N/A	2018

B. Optional: provide below or attach additional sheets describing water pollution control programs or other environmental projects which may affect discharges. Indicate whether each program is underway or planned, and indicate actual or planned schedules for construction. This may include proposed bmp projects for stormwater.

2.5 SLUDGE MANAGEMENT

Describe the removal of any industrial or domestic biosolids or sludges generated at your facility. Include names and contact information for any haulers used. Note the frequency, volume, and methods (incineration, landfilling, composting, etc) used. See Form A for additional forms which may need to be completed.

N/A

DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

3.0 EFFLUENT (AND INTAKE) CHARACTERISTICS (SEE INSTRUCTIONS)

A. & B. See instructions before continuing – complete one Table 1 for **each outfall** (and intake) – annotate the outfall (intake) number or designation in the space provided. The facility is not required to complete intake data unless required by the department or rule.

C. Use the space below to list any pollutants listed in the instructions section 3.0 C. Table B which you know or have reason to believe is discharged or may be discharged from any outfall not listed in parts 3.0 A or B on Table 1. For every pollutant listed, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	3. OUTFALL(S)	4. ANALYTICAL RESULTS (INCLUDE UNITS)
PCE, TCE	Historic Plant Operations	02a, 03a, 006	Outfall 02a: PCE - ND to 1.2 ug/L,
(Analytical results for past 4	(Surface water does not contact the		TCE - ND
yrs summarized in Appd D)	residual chemical contamination		Outfall 03a: PCE - ND, TCE - ND
	(PCE/TCE) remaining in subsurface		Outfall 006: PCE - ND, TCE - ND
	soil. Clean fill overlies the		(Analytical results for past 4 yrs summarized
	contaminated soil.)		in Appd D)

3.1 Whole Effluent Toxicity Testing

A. To your knowledge, have any Whole Effluent Toxicity (WET) tests been performed on the facility discharges (or on receiving waters in relation to your discharge) within the last three years?

☐ Yes (go to 3.1 B) ☑ No (go to 3.2)

3.1 B

Disclose wet testing conditions, including test duration (chronic or acute), the organisms tested, and the testing results. Provide any results of toxicity identification evaluations (TIE) or toxicity reduction evaluations (TRE) if applicable. Please indicate the conclusions of the test(s) including any pollutants identified as causing toxicity and steps the facility is taking to remedy the toxicity.

3.2 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported herein, above, or on Table 1 performed by a contract laboratory or consulting firm?

☑ Yes (list the name, address, telephone number, and pollutants analyzed by each laboratory or firm.) ☐ No *(go to 4.0)*

A. LAB NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list or group)*
Eurofins TestAmerica	13715 Rider Trail North Earth City, MO 63045	314-298-8566	TSS, COD, volatile organic compounds, polynuclear aromatic hyrdrocarbons, metals

4.0 STORMWATER

4.1
Do you have industrial stormwater discharges from the site? If so, attach a site map outlining drainage areas served by each outfall. Indicate the following attributes within each drainage area: pavement or other impervious surfaces; buildings; outdoor storage areas; material loading and unloading areas; outdoor industrial activities; structural stormwater control measures; hazardous waste treatment, storage, and disposal units; and wells or springs in the area.

OUTFALL NUMBER	TOTAL AREA DRAINED (PROVIDE UNITS)	TYPES OF SURFACES (VEGETATED, STONE , PAVED, ETC)	BEST MANAGEMENT PRACTICES EMPLOYED; INCLUDE STRUCTURAL BMPS AND TREATMENT DESIGN FLOW FOR BMPS DESCRIBE HOW FLOW IS MEASURED
02a		Vegetated(70%), paved(30%)	BMPs - maintenance of vegetated areas. Retention/settling in Site Pond.
			Flow measured w/ module in culvert
006		Vegetated (100%)	BMPs - maintenance of vegetated areas. Flow measured w/ module in culvert

4.2 STORMWATER FLOWS
Provide the date of sampling with the flows, and how the flows were estimated.
Quarterly sampling of outfalls reported in eDMRs. Flows measured using electonic flow modules/transducers installed in outfalls.

SIGNATORY REQUIREMENTS

5.0 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.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Val J. Kelmeckis, Global Environmental Manager	314-810-3300
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.
You may report some or all of this information on separate sheet *(use similar format)* instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS — THIS OUTFALL IS: Combined Stormwater and Process Water — OUTFALL NO. 02a

3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES						3. UNITS *(specify if blank)*	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand, 5-day (BOD_5)	No data						N/A	N/A	
B. Chemical Oxygen Demand (COD)	150				25.6		14	mg/L	
C. Total Organic Carbon (TOC)	No data								
D. Total Suspended Solids (TSS)	22				10.3		14	mg/L	
E. Ammonia as N	No data								
F. Flow	VALUE 2.36		VALUE		VALUE 0.76			MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature *(winter)*	VALUE No data		VALUE		VALUE			°F	
H. Temperature *(summer)*	VALUE No data		VALUE		VALUE			°F	
I. pH	MINIMUM 6.8		MAXIMUM 8.5		AVERAGE			STANDARD UNITS (SU)	

3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity ($CaCO_3$)		X	MINIMUM		MINIMUM		MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)		X									
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. *E. coli*		X	720893	4231734							
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate *(as N)*		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic *(as N)*		X									
L. Oil and Grease		X	1795								
M. Phenols, Total		X									
N. Phosphorus *(as P)*, Total (7723-14-0)		X									
O. Sulfate *(as SO^4)* (14808-79-8)											
P. Sulfide *(as S)*											
Q. Sulfite (as SO^3) (14265-45-3)											
R. Surfactants											
S. Trihalomethanes, Total											
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)		X									
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)	X		<10				<10		11	ug/L	
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)		X									
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)		X									
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.
You may report some or all of this information on separate sheet *(use similar format)* instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS	THIS OUTFALL IS: Combined Stormwater and Process Water	OUTFALL NO. 02a

3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES							3. UNITS *(specify if blank)*	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand, 5-day (BOD_5)	No data						N/A	N/A	
B. Chemical Oxygen Demand (COD)	150				25.6		14	mg/L	
C. Total Organic Carbon (TOC)	No data								
D. Total Suspended Solids (TSS)	22				10.3		14	mg/L	
E. Ammonia as N	No data								
F. Flow	VALUE 2.36		VALUE		VALUE 0.76			MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature *(winter)*	VALUE No data		VALUE		VALUE			°F	
H. Temperature *(summer)*	VALUE No data		VALUE		VALUE			°F	
I. pH	MINIMUM 6.8		MAXIMUM 8.5		AVERAGE			STANDARD UNITS (SU)	

3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity ($CaCO_3$)		X	MINIMUM		MINIMUM		MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)		X									
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. *E. coli*		X	720893	4231734							
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate *(as N)*		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic *(as N)*		X									
L. Oil and Grease		X	1795								
M. Phenols, Total		X									
N. Phosphorus *(as P)*, Total (7723-14-0)		X									
O. Sulfate *(as SO^4)* (14808-79-8)											
P. Sulfide *(as S)*											
Q. Sulfite (as SO^3) (14265-45-3)											
R. Surfactants											
S. Trihalomethanes, Total											
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)		X									
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)	X		<10				<10		11	ug/L	
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)		X									
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)		X									
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

SEE INSTRUCTIONS; PLEASE PRINT OR TYPE.
You may report some or all of this information on separate sheet *(use similar format)* instead of completing these pages.

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS — THIS OUTFALL IS: Combined Stormwater and Process Water — OUTFALL NO. 02a

3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES							3. UNITS *(specify if blank)*	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand, 5-day (BOD_5)	No data						N/A	N/A	
B. Chemical Oxygen Demand (COD)	150				25.6		14	mg/L	
C. Total Organic Carbon (TOC)	No data								
D. Total Suspended Solids (TSS)	22				10.3		14	mg/L	
E. Ammonia as N	No data								
F. Flow	VALUE 2.36		VALUE		VALUE 0.76			MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature *(winter)*	VALUE No data		VALUE		VALUE			°F	
H. Temperature *(summer)*	VALUE No data		VALUE		VALUE			°F	
I. pH	MINIMUM 6.8		MAXIMUM 8.5		AVERAGE			STANDARD UNITS (SU)	

3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity ($CaCO_3$)		X	MINIMUM		MINIMUM		MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)		X									
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. *E. coli*		X	720893	4231734							
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate *(as N)*		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic *(as N)*		X									
L. Oil and Grease		X	1795								
M. Phenols, Total		X									
N. Phosphorus *(as P)*, Total (7723-14-0)		X									
O. Sulfate *(as SO^4)* (14808-79-8)											
P. Sulfide *(as S)*											
Q. Sulfite (as SO^3) (14265-45-3)											
R. Surfactants											
S. Trihalomethanes, Total											
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)		X									
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)	X		<10				<10		11	ug/L	
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)		X									
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)		X									
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

INSTRUCTIONS FOR FILLING OUT APPLICATION FOR NPDES DISCHARGE PERMIT – FORM C – MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, PROCESS WASTEWATER, NON-PROCESS WASTEWATER, AND INDUSTRIAL STORMWATER DISCHARGES.

All applicable sections must be filled in when the application is submitted. The form must be signed as indicated. This application is to be completed only for facilities with a discharge. Non-discharging (land application facilities) should fill out the appropriate forms for the activity. Include any area with potential discharge, even if there is normally no discharge. If this form is not adequate for you to describe your existing operations, then sufficient information should be attached so an evaluation of the discharges can be made. Attach additional sheets as necessary for any additional information. If an applicant believes previous outfalls are no longer applicable to the facility, please indicate so. Certain parts of the application may be submitted electronically, such as extensive analytical data, or project plans relating to improvements. This may be included using a thumb drive or CD. If extensive data is submitted without an electronic copy, the department may request the submission at a later time so the permit writer can mathematically evaluate the data. If you have any questions regarding this form please contact the Water Protection Program Operating Permits Administrative Assistant at 800-361-4827 or 573-571-6825 and you will be directed to a permit writer.

GENERAL INFORMATION

1.0 Name of Facility – By what title or name is this facility known? Has the official name changed? Please indicate both the previous and current name you wish to be listed on the permit.

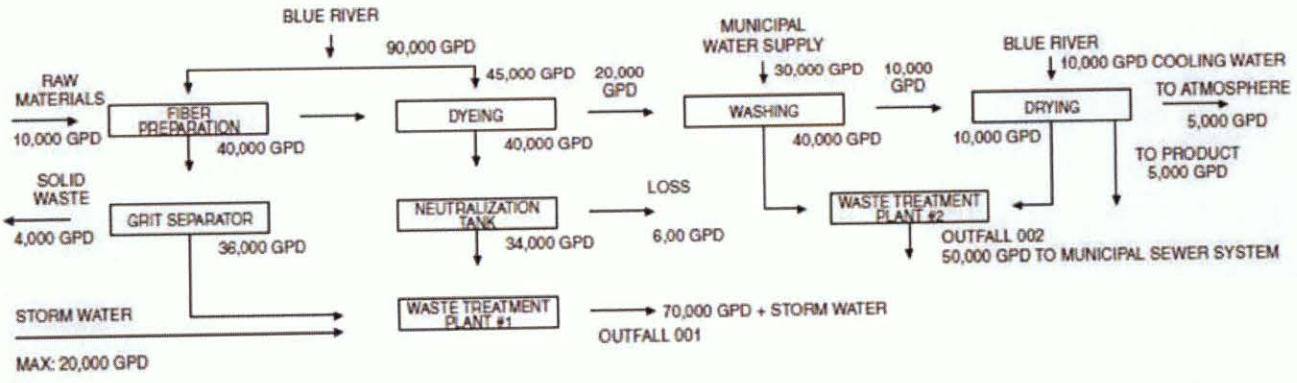
1.1 Operating permit number as assigned (MO-#######)

1.2 Indicate if this is a new facility or if there are any new discharges. Has the facility completed an antidegradation review? Is this facility being moved from a general permit to a site specific permit? If so, indicate general permit number.

1.3 Self-explanatory.

FLOWS, TYPE, AND FREQUENCY

2.0 The line drawing should show the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and stormwater runoff. Indicate any alternate treatment trains available. You may group similar operations into a single unit labeled to correspond to the more detailed listing. More than one drawing may be required depending on the complexity of the system. The water balance should show average and maximum flows. Show all significant losses of water to: products, atmosphere, public sewer systems; both storm sewer and sewer. You should use actual measurements whenever available; otherwise, use your best estimate. An example of an acceptable line drawing appears below.



2.1 List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or a "distillation tower"). You may estimate the flow contributed by each source if no data is available, and for stormwater, you may use any reasonable measure of duration, volume, or frequency. For each treatment unit, indicate its size, flow rate, and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table A to fill in column 3B for each treatment unit. Insert "XX" into column 3B if no code corresponds to a treatment unit you list.

TABLE A – CODES FOR TREATMENT UNITS			
PHYSICAL TREATMENT PROCESSES			
1-A	Ammonia Stripping	1-M	Grit Removal
1-B	Dialysis	1-N	Microstraining
1-C	Diatomaceous Earth Filtration	1-O	Mixing
1-D	Distillation	1-P	Moving Bed Filters
1-E	Electrodialysis	1-Q	Multimedia Filtration
1-F	Evaporation	1-R	Rapid Sand Filtration
1-G	Flocculation	1-S	Reverse Osmosis (Hyper Filtration)
1-H	Flotation	1-T	Screening
1-I	Foam Fractionation	1-U	Sedimentation (Settling)
1-J	Freezing	1-V	Slow Sand Filtration
1-K	Gas-Phase Separation	1-W	Solvent Extraction
1-L	Grinding (Comminutors)	1-X	Sorption
CHEMICAL TREATMENT PROCESSES			
2-A	Carbon Absorption	2-G	Disinfection (Ozone)
2-B	Chemical Oxidation	2-H	Disinfection (Other)
2-C	Chemical Precipitation	2-I	Electrochemical Treatment
2-D	Coagulation	2-J	Ion Exchange
2-E	Dechlorination	2-K	Neutralization
2-F	Disinfection (Chlorine)	2-L	Reduction
BIOLOGICAL TREATMENT PROCESSES			
3-A	Activated Sludge	3-E	Pre-Aeration
3-B	Aerated Lagoons	3-F	Spray Irrigation/Land Application
3-C	Anaerobic Treatment	3-G	Stabilization Ponds
3-D	Nitrification-Denitrification	3-H	Trickling Filtration
OTHER PROCESSES			
4-A	Discharge to Surface Water	4-C	Reuse/Recycle of Treated Effluent
4-B	Ocean Discharge Through Outfall	4-D	Underground Injection
SLUDGE TREATMENT AND DISPOSAL PROCESSES			
5-A	Aerobic Digestion	5-M	Heat Drying
5-B	Anaerobic Digestion	5-N	Heat Treatment
5-C	Belt Filtration	5-O	Incineration
5-D	Centrifugation	5-P	Land Application
5-E	Chemical Conditioning	5-Q	Landfill
5-F	Chlorine Treatment	5-R	Pressure Filtration
5-G	Composting	5-S	Pyrolysis
5-H	Drying Beds	5-T	Sludge Lagoons
5-I	Elutriation	5-U	Vacuum Filtration
5-J	Flotation Thickening	5-V	Vibration
5-K	Freezing	5-W	Web Oxidation
5-L	Gravity Thickening		

2.2 A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measures during days when discharge occurred within the last year in the "Long Term Average" columns.

PRODUCTION

2.3 A. All effluent limitation guidelines (ELGs) promulgated by EPA appear in the Federal Register and are published annually in 40 CPR Subchapter N (400-499). A guideline applies to you based on the applicability sections within each subpart. If you are unsure you are covered by an ELG, check with your Missouri Department of Natural Resources' Regional Office. You must check yes if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check no. The ELG number and subpart(s) must be included.

2.3 B. An ELG is expressed in terms of production (or other measure of operation) if the limitations are expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants, or requires no discharge of the wastewater.

2.3 C. This item must be completed if you checked "yes" to item B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated. Report quantities and the units of measurement used in the applicable effluent guideline. The data provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation, but may not be based on design capacity or on predictions of future increases in operation. This data must be concurrent of facility operations.

2.4 IMPROVEMENTS If you check yes to this question, complete all parts of the table, or attach a copy of any previous submission you have made containing the same information. You are not required to submit a description of future pollution control projects if you do not wish to, or if none are planned.

2.5 SLUDGE MANAGEMENT If the facility generates any sludge or biosolids, please indicate where the sludge accumulates (lagoon, tank, etc.) and the methods of disposal. Please include the volume and frequency of sludge removal/disposal and any haulers used. Please indicate if the facility composts, incinerates, landfills, stores, sells, or other methods of eliminating the sludge from lagoons or holding tanks. Consider submitting a sludge or biosolids management plan electronically if additional description is needed.

DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

3.0 This section requires collection and reporting of data on pollutants discharged from each outfall, including stormwater outfalls, non-process wastewater, and any intake data you wish to provide. Parts A, B, and C address different sets of pollutants and must be completed in accordance with the specific instructions for the part. All data must be reported as a concentration **and** as total mass. You may report some or all of the required data by attaching separate sheets of paper.

3.0 A. and B. These sections are found on Table 1. Complete a separate table for each outfall and intake.

3.0 A. Requires reporting at least one analysis for each pollutant. Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water, stormwater runoff, or other discharges; intake values are not required in this Part. Upon written request, (email is suitable) prior to submitting the application, the department may waive the requirements to test for one or more of these pollutants upon determining testing for the pollutant(s) is not applicable for your effluent.

3.0 B. Mark "X" in either "Believed Present", Column 2A, or "Believed Absent", Column 2B, for each pollutant, based on your best estimate, and test those you believe present. Base your determination a pollutant is present in, or absent from, your discharge on your knowledge of your raw materials, source water, maintenance chemicals, intermediate, byproduct, and final products, and any previous analyses known to you of the facility's effluent, or of any similar effluent. If either chloride or sulfate is believed present, the department asks you to test for both chloride and sulfate. If you expect a pollutant is present as a result your intake water, you should mark "Believed Present" and analyze for the pollutant. Provide analysis of the intake or source water as well; this includes water withdrawn from wells or obtained from a potable water source. Presence of a pollutant in the discharge from sourced water does not eliminate disclosure requirements. If a

pollutant is reported as not present, the pollutant will be considered "believed absent" for the purposes of application shield.

3.0 A and B Continued

Use the following abbreviations (or other as applicable) in Column 4, "Units". Mass must be specified as per day, month, or year.

CONCENTRATION		MASS	
ppm	parts per million	lbs	pounds
mg/L	milligrams per liter	ton	tons (English tons)
ppb	parts per billion	mg	Milligrams
ug/L	micrograms per liter	g	grams
pCi/L	picocuries per liter	kg	kilograms
		T	tonnes (metric tons)

MAXIMUM DAILY VALUE. If you measure a pollutant only once, complete only the "Maximum Daily Value" columns and insert "1" into the "number of analyses" in Column D. The Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharge. If the pollutant is sampled but not detected, a less than "<" symbol should be used next to the detection limit (or laboratory reporting limit). Simply stating "below detection limits" without quantifying the limit of detection may not be appropriate and additional information may be required.

MAXIMUM 30 DAY VALUES. "Maximum 30 Day Values" are not compulsory but should be filled out if data is available. The department suggests at least 4 samples (one per week) be collected over a one month period for averaging purposes, but is not required. Determine the average of all daily values taken during one calendar month, and report the highest average of all daily values taken during all calendar months, and report the highest average in Column B. Column D must show the number of samples used in the calculation.

LONG TERM AVERAGES. "Long Term Average Values" are not compulsory but should be filled out if data is available. Determine the long term average of all the data and report in Column C. Column D must show the number of samples used in the calculations. The facility should include a statement describing the timeframe of the data used in the calculations. Consider including an electronic copy of the data with the application.

SAMPLING. The collection of samples for analyses should be supervised by a person experienced in performing sampling of industrial wastewater and/or stormwater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate or blank samples, etc. The time when you sample should be representative of your normal operation, with all processes contributing wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, at a site specified in your present permit, or for new discharges, at any site adequate for the collection of a representative sample.

GRAB SAMPLE. An individual sample of sufficient volume for analysis, collected at a randomly selected time, over a period not exceeding 15 minutes, which is representative of the discharge. Grab samples must be used for temperature, pH, total residual chlorine, oil and grease, *E. coli,* and any pollutant considered to be volatile. Grab samples are typically appropriate for stormwater.

COMPOSITE SAMPLE. Use composite sampling (if available) for all pollutants (except above). A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be proportional; either time interval proportional, or flow proportional. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136 for all analyses. The facility must use a sufficiently sensitive method to determine compliance with Missouri Water Quality Standards in accordance with Standard Conditions Part I. If no method has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge. If there is no promulgated method, your attached description should include the preservation techniques, sample holding times, the quality control measures which you used, and any other

pertinent information, such as filtering or what fraction the method detects. For obscure methods or new contaminants, consider including an electronic copy of the method with the application and the laboratory analysis sheets.

IDENTICAL OUTFALL CONSIDERATION. If you have two or more substantially identical outfalls, you may submit the results of the analysis for one substantially identical outfall in its place. Identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall you did test.

REPORTING OF INTAKE DATA. You are not required to report intake data unless you wish apply for "net" effluent limitations for one or more pollutants. Net limitations are technology limits adjusted by subtracting the level of the pollutant present in the intake water from the discharge. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate eligibility, report the maximum and average of the results of analyses on the intake water, attach a statement the intake water is drawn from the same body of water into which the discharge is made, and a statement how the pollutant level is reduced by the wastewater treatment. When applicable, a demonstration to the extent the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in the discharge; for example, when the pollutant represents a class of compounds.

3.0. C. requires listing any pollutants from "TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT" you believe to be present and explain why you believe them to be present. If you have analytical data, you must report it. You may include other pollutants not listed below but present in your discharge in 3.0 C. Please provide Chemical Abstract Service (CAS) numbers for any additional pollutants described. If the facility is required to complete Form D, duplication of the parameters here is not required.

TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT		
TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dimethylamine	Napthenic acid
HAZARDOUS SUBSTANCES	Dintrobenzene	Nitrotoluene
Acetaldehyde	Diquat	Parathion
Allyl alcohol	Disulfoton	Phenolsulfonate
Allyl chloride	Diuron	Phosgene
Amyl acetate	Epichlorohydrin	Propargite
Aniline	Ethion	Propylene oxide
Benzonitrile	Ethylene diamine	Pyrethrins
Benzyl chloride	Ethylene dibromide	Quinoline
Butyl acetate	Formaldehyde	Resorcinol
Butylamine	Furfural	Strontium
Captan	Guthion	Strychnine
Carbaryl	Isoprene	Sytrene
Carbofuran	Isopropanolamine	2,4,5-T (2,4,5-Trichloro-phenoxyacetic acid)
Carbon disulfide	Kelthane	TDE (Tetrachlorodiphenyl ethane)
Chlorpyrifos	Kepone	2, 4, 5-TP (2-(2,4,5-Trichloro-phenoxy) propanoic acid)
Coumaphos	Malathion	Trichlorofon
Cresol	Mercaptodimethur	Triethanolamine
Crotonaldehyde	Methoxychlor	Triethaylamine
2,4-D (2,4-Dichloro-Phenoxyacetic acid)	Methyl mercaptan	Uranium
Diazinon	Methyl parathion	Vanadium
Dicamba	Mevinphos	Vinyl acetate
Dichlobenil	Mexacarbate	Xylene
2,2-Dichloropropionic acid	Monethyl amine	Xylenol
Dichlorvos	Monomethyl amine	Zirconium
Diethylamine	Nalad	

3.1 Self-explanatory.

3.2 Self-explanatory.

4.0 STORMWATER [10 CSR 20-6.200(2)(C)1.]

In accordance with 10 CSR 20-6.200(2)(C)1.E(I) and (II), the facility must sample the stormwater for any pollutant listed in the permit for process wastewater discharges and/or the applicable Effluent Limitation Guideline. All industrial stormwater must be sampled for parameters listed in 10 CSR 20-6.200(2)(C)1.E.(III); these are: oil and grease, pH, biochemical oxygen demands (BOD_5), chemical oxygen demands (COD), total suspended solids (TSS), conductivity, total phosphorus, total Kjeldahl nitrogen, and nitrate plus nitrite nitrogen.

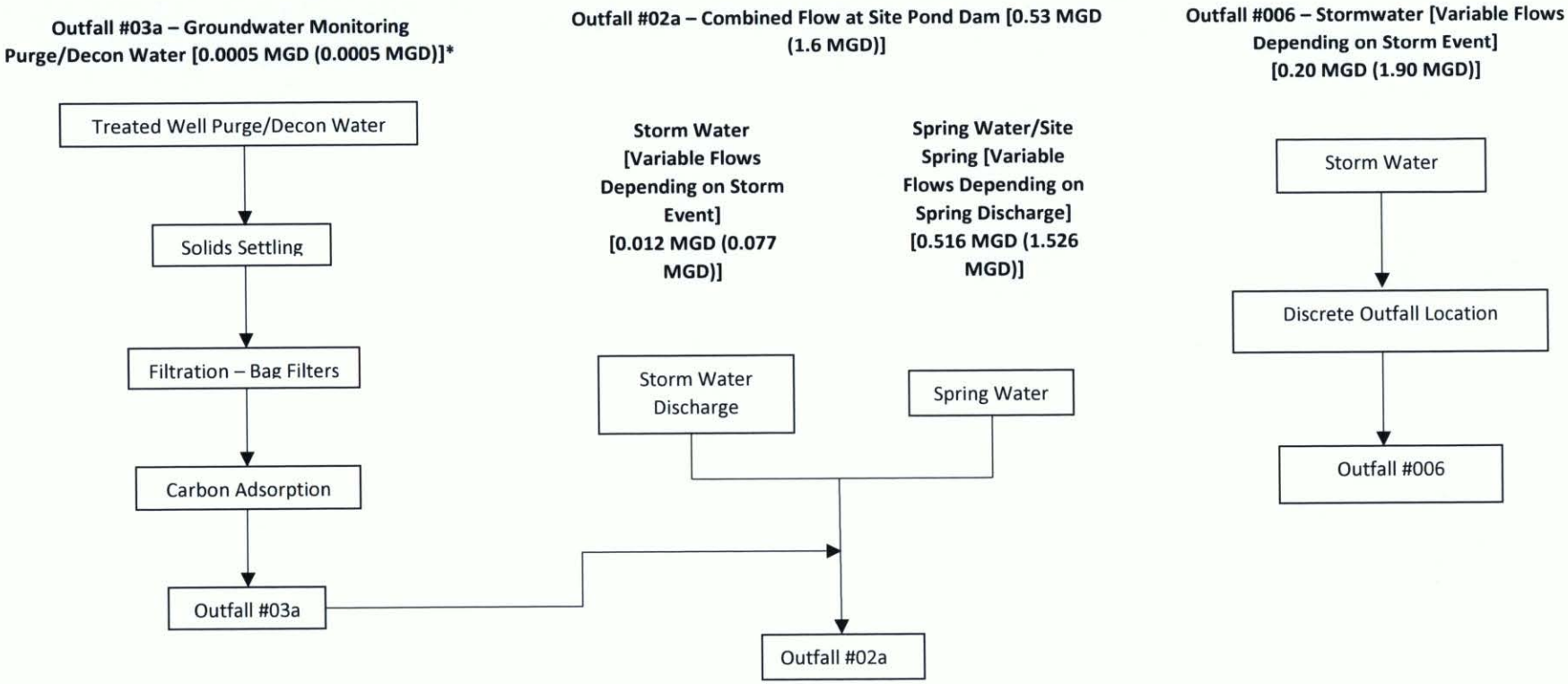
4.1 Indicate the outfall numbers for industrial stormwater discharges. Provide the area drained by each outfall. Indicate the type and percentages of surface(s), for example: 60% grass or vegetated areas, 10% non-vegetated soils, 30% pavement, etc., the outfall drains. The facility must indicate any structural best management practices, such as settling/retention, rain garden/infiltration, filter socks, etc, employed at each outfall.

4.2 Describe the method used to determine the flow rate in accordance with 10 CSR 20-6.200(2)(C)1., and the flow rate; submit the date and duration of the storm event from which the samples were taken.

5.0 SIGNATORY REQUIREMENTS The Clean Water Act provides for severe penalties for submitting false information on this application form. Section 309(c)(2) of the Clean Water Act provides "Any person who knowingly makes any false statement, representation, or certification in any application . . . shall upon conviction, be punished by a fine of no more $10,000 or by imprisonment for not more than six months, or both.

All applications must be signed as follows and the signature must be original. For a corporation: by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters. For a partnership or sole proprietorship: by a general partner or the proprietor. For a municipal, state, federal or other public facility: by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

Water Balance Flowchart
Hematite Remediation Project
Flows in Million Gallons/Day (MGD)
Maximum Daily Flow Rate in Parenthesis



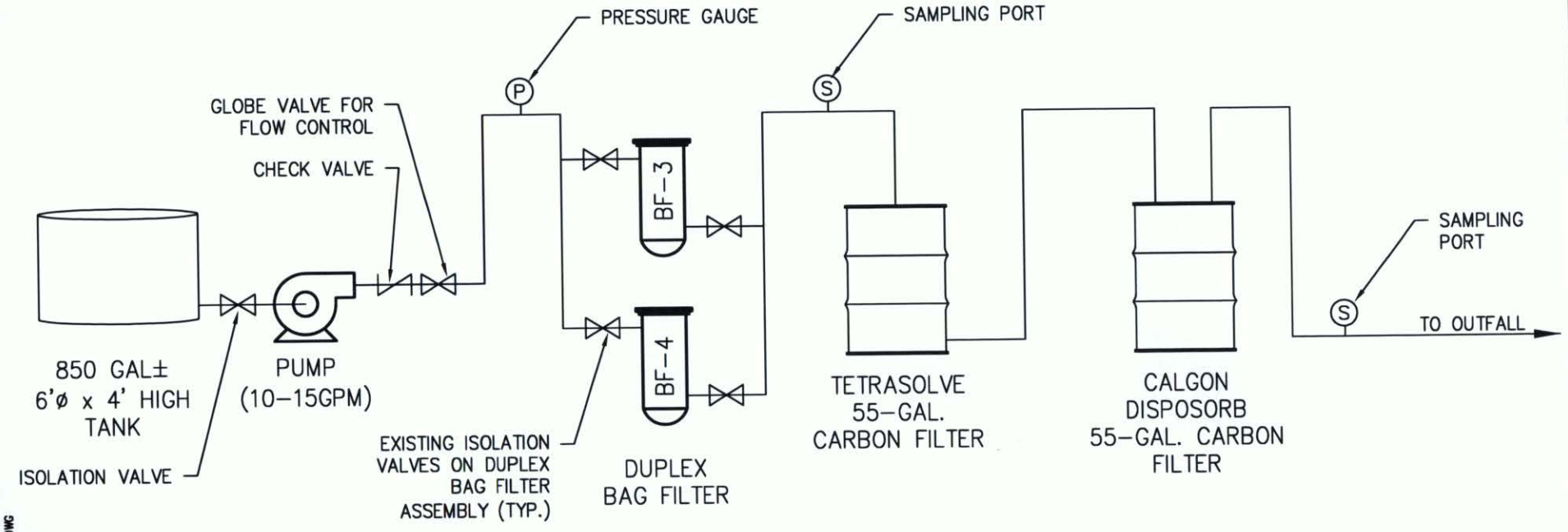
*Note: Outfall #03a discharges will amount to approximately 500 gallons per year [0.0005 MGY]

ATTACHMENT 4

Water Treatment System Design Drawings

NOTE:

1. A COMBINATION OF 2" DIAMETER SCHEDULE 40 PVC PIPE AND 2" DIAMETER RUBBER PVC SUCTION HOSE WILL BE USED TO CONSTRUCT THE PIPING SYSTEM BETWEEN TANK, PUMP, BAG FILTERS, MEDIA DRUMS AND THE OUTFALL.
2. A PORTABLE DOPPLER FLOW METER WILL BE USED TO MEASURE FLOW IN THE WATER TREATMENT SYSTEM. (SEE FIGURE 3 FOR PORTABLE DOPPLER FLOW METER SENSOR MOUNTING RECOMMENDATIONS)



CONTAINMENT CALCULATIONS:
TOTAL CONTAINMENT VOLUME = 100% OF LARGEST TANK = 850 GALLONS
850 GALLONS = 114 CUBIC FEET
CONTAINMENT DIMENSIONS = 12' WIDE x 30' LONG x 6" HIGH
(SEE FIGURE 2 FOR A SECTION DETAIL)

PUMP SPECIFICATION OPTIONS:
COLE PALMER 72010-80-85
DAYTON 2ZWP1
GOULD A-C 1500 1-1/2x1-1/2x7B 1150 RPM 6" IMPELLER

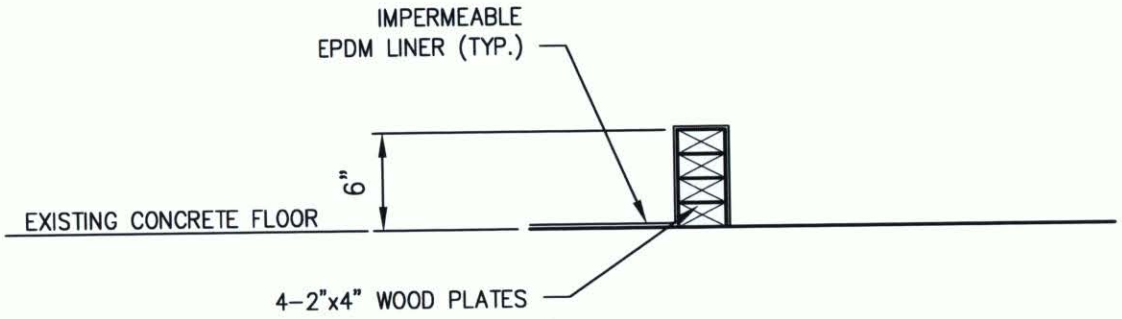
E:\BAUER\WATER TREATMENT SYSTEM_VOC\WTS_SCHEMATIC.DWG

FIGURE 1

PROCESS FLOW SCHEMATIC
WATER TREATMENT SYSTEM

Hematite Decommissioning Project
Jefferson County
Hematite, MO

PREPARED BY:	REVISION:	DATE:
FPB	0	03/24/2016



SECTION THROUGH OF SECONDARY CONTAINMENT WALL

SCALE: 3/4"=1'-0"

NOTE:

USE #5 CHARGE 0.27 CAL LOAD AND 3" PIN IN POWDER-ACTUATED NAILER OR EQUAL TO CONNECT THE WOOD FRAMING TO THE EXISTING CONCRETE FLOOR.

THE SECONDARY CONTAINMENT IS TO BE LINED WITH AN IMPERMEABLE EPDM MATERIAL.

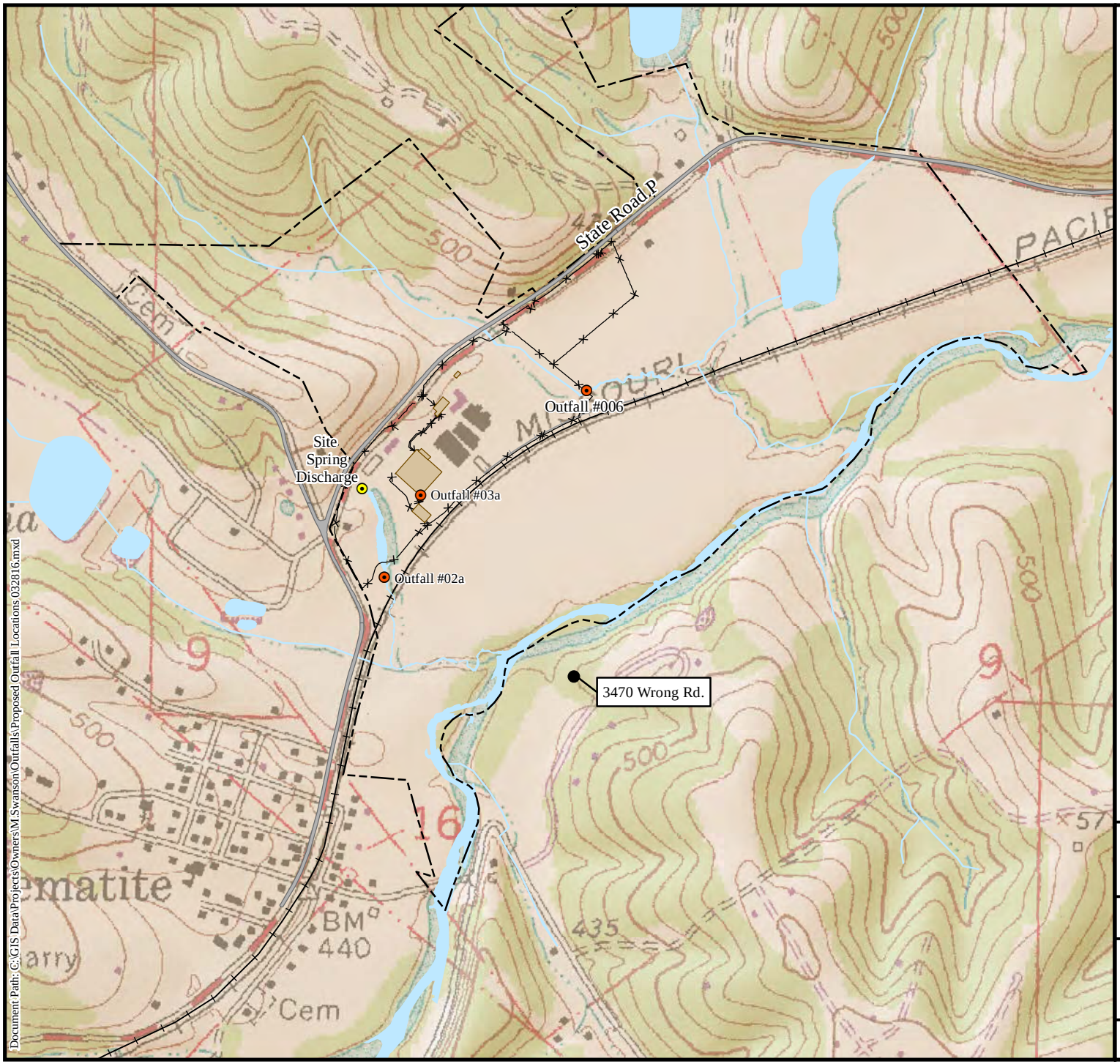
FIGURE 2

SECONDARY CONTAINMENT CONSTRUCTION DETAILS WATER TREATMENT SYSTEM		
Hematite Decommissioning Project Jefferson County Hematite, MO		
PREPARED BY: FPB	REVISION: 0	DATE: 03/24/2016

E:\BAUER\WATER TREATMENT SYSTEM_VOC\SECONDARY CONTAINMENT SYSTEM\WTS_SECONDARY CONTAINMENT_DETAILS.DWG

ATTACHMENT 5

Outfall Analytical Results



LEGEND:

- Existing Outfall Location
- Site Spring
- State Road P
- Buildings
- Property Boundary
- Surface Water
- Streams
- Railroad
- RR Spur
- Fence

N
W E
S

0 440 880 Feet

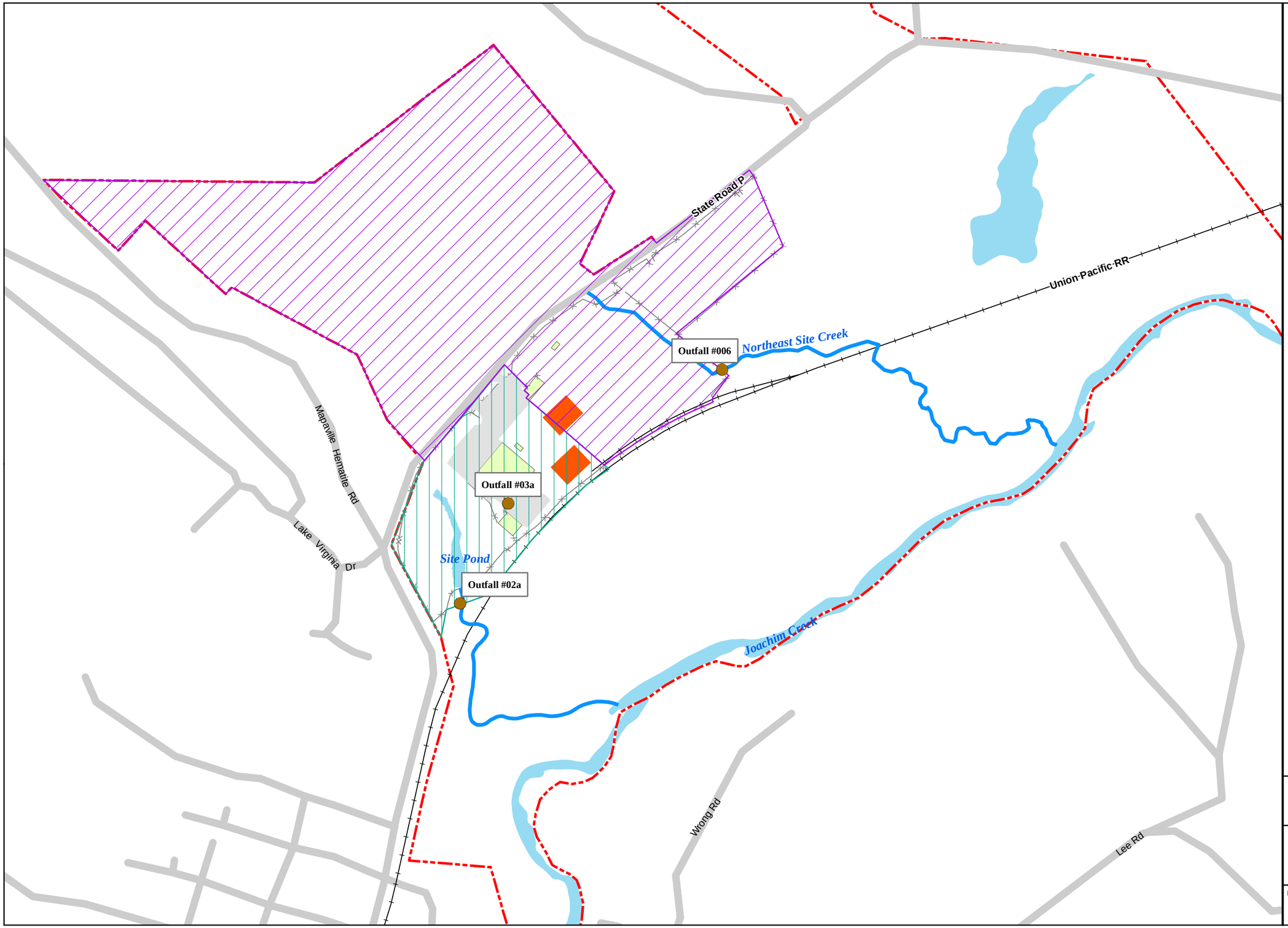
Figure 1
Outfall Locations

Requested By:	Document/Reason:
M. Swanson	Environmental Monitoring

Hematite Decommissioning Project
Jefferson County
Hematite, MO

Prepared By:	Rev:	Size:	Date:
SDJ	0	8.5x11	04-05-16

Document Path: C:\Users\caseltona\Desktop\NPDES Permit Map.mxd



Legend

- Outfall Location
- Outfall #006 Drainage Area
- Outfall #02a Drainage Area
- Subsurface VOC Contamination
- Pavement
- Creek
- Surface_Water
- Railroad
- Road
- Fence
- Westinghouse Boundary
- Existing Building Footprint

N
W E
S

0 125 250 500
Feet

Figure 2
Outfall Locations

Hematite Facility
Jefferson County
Hematite, MO

DRAWN BY:	REV:	DATE:
Leidos	0	10/14/2020