STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Missouri Cobalt
1050 County Road 263
Fredricktown, MO

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

February 17, 2021
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

February 16, 2023
Expiration Date

Chris Wieberg, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Missouri Cobalt has also been identified as the fomer Madison Mine and is currently undergoing CERCLA remediation onsite. Construction is to handle the increased throughput through the processing plant and an increase in flows to 331 gpm average, for a design average flow of 476,640 gpd. Process wastewater will be recycled for re-use in the plant. Storage Basin No. 1 was modified to increase the berm height by 6 ft to allow for additional storage and to add an emergency spillway, thus providing 6.33 days of storage in the 3,016,138 gallons capacity. Storage Basin No. 2 will be constructed onsite providing approximately 63,480,548 gallons of capacity and 133.2 days of retention. Land application of wastewater will occur on the 200 acres on the Missouri Cobalt site.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

II. COST ANALYSIS FOR COMPLIANCE

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources 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 Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The Department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.

2. All construction shall be consistent with plans and specifications signed and sealed by Environmental Operations, Inc. and as described in this permit.

3. The Department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow,

system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).

4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's Southeast Regional Office per 10 CSR 20-7.015(9)(G).

5. The wastewater treatment facility shall be located above the twenty-five (25)-year flood level.

6. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation per 10 CSR 20-8.140(2)(B).The minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300') per 10 CSR 20-8.140(2)(C)1.

7. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of 1 acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

8. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See dnr.mo.gov/env/wpp/401/ for more information.

9. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
    - Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation. 10 CSR 20-8.140 (2) (B)
    - Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300'). 10 CSR 20-8.140 (2) (C) 1.

- Facilities shall be readily accessible by authorized personnel from a public right–of-way at all times. 10 CSR 20-8.140 (2) (D)
- The alarm shall be activated in cases of high water levels. Follow the provisions in subsection (7)(C) of this rule for alarm systems. 10 CSR 20-8.140 (4) (D)
- The outfall shall be so constructed and protected against the effects of flood water, ice, or other hazards as to reasonably ensure its structural stability and freedom from stoppage. 10 CSR 20-8.140 (6) (A)
- All sampling points shall be designed so that a representative and discrete twenty-four (24) hour automatic composite sample or grab sample of the effluent discharge can be obtained at a point after the final treatment process and before discharge to or mixing with the receiving waters. 10 CSR 20-8.140 (6) (B)
- All outfalls shall be posted with a permanent sign indicating the outfall number (i.e., Outfall #001). 10 CSR 20-8.140 (6) (C)
- Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 *National Electric Code (NEC)* (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140 (7) (B)
- An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140 (7) (C)
- No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140 (7) (D) 1.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)
- Effluent twenty-four (24) hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140 (7) (F)
- Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility:
    - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140 (8) (A)
    - Gratings over appropriate areas of treatment units where access for maintenance is necessary; 10 CSR 20-8.140 (8) (B)
    - First aid equipment; 10 CSR 20-8.140 (8) (C)
    - Posted “No Smoking” signs in hazardous areas; 10 CSR 20-8.140 (8) (D)
    - Appropriate personal protective equipment (PPE); 10 CSR 20-8.140 (8) (E)
    - Portable blower and hose sufficient to ventilate accessed confined spaces; 10 CSR 20-8.140 (8) (F)

  - 10 CSR 20-8.140 (8) (G) Portable lighting equipment complying with NEC requirements. See subsection (7)(B) of this rule;
  - 10 CSR 20-8.140 (8) (H) Gas detectors listed and labeled for use in NEC Class I, Division 1, Group D locations. See subsection (7)(B) of this rule;
  - Appropriately-placed warning signs for slippery areas, non-potable water fixtures (see subparagraph (7)(D)3.B. of this rule), low head clearance areas, open service manholes, hazardous chemical storage areas, flammable fuel storage areas, high noise areas, etc.; 10 CSR 20-8.140 (8) (I)
  - Provisions for local lockout/tagout on stop motor controls and other devices; 10 CSR 20-8.140 (8) (L)
- The materials utilized for storage, piping, valves, pumping, metering, and splash guards, etc., for chemical handling, shall be specially selected considering the physical and chemical characteristics of each hazardous or corrosive chemical. 10 CSR 20-8.140 (9) (A) 1.
- Secondary containment storage areas contain the stored volume of chemicals until it can be safely transferred to alternate storage or released to the wastewater treatment plant at controlled rates that will not damage the facilities, inhibit the treatment processes, or contribute to stream pollution. Secondary containment shall be designed as follows:
  - A minimum volume of one hundred twenty-five percent (125%) of the volume of the largest storage container located within the containment area plus the space occupied by any other tanks located within the containment area when not protected from precipitation; 10 CSR 20-8.140 (9) (A) 2. A.
  - A minimum volume of one hundred ten percent (110%) of the volume of the largest storage container located within the containment area plus the space occupied by any other tanks located within the containment area when protected from precipitation; 10 CSR 20-8.140 (9) (A) 2. B.
  - Walls and floors of the secondary containment structure constructed of suitable material that is compatible with the specifications of the product being stored. 10 CSR 20-8.140 (9) (A) 2. C.
- All pumps or feeders for hazardous or corrosive chemicals shall have guards that will effectively prevent spray of chemicals into space occupied by facility personnel. 10 CSR 20-8.140 (9) (A) 3.
- Piping, labeling, and coupling guard locations. 10 CSR 20-8.140 (9) (A) 4.
- All piping containing or transporting corrosive or hazardous chemicals shall be identified with labels every ten feet (10') and with at least two (2) labels in each room, closet, or pipe chase. 10 CSR 20-8.140 (9) (A) 4. A.
- Facilities shall be provided for automatic shutdown of pumps and sounding of alarms when failure occurs in a pressurized chemical discharge line. 10 CSR 20-8.140 (9) (A) 5.
- For solids pumping systems, audio-visual alarms shall be provided in accordance with 10 CSR 20-8.140(7)(C) for:
  - Pump failure; 10 CSR 20-8.170 (6) (A)
  - Pressure loss; 10 CSR 20-8.170 (6) (B) and

  - High pressure. 10 CSR 20-8.170 (6) (C)
- Lagoon berms shall be constructed of relatively impervious material and compacted to at least ninety-five percent (95%) maximum dry density test method to form a stable structure. 10 CSR 20-200(4)(A)1.
- The minimum berm width shall be eight feet (8') to permit access of maintenance vehicles. 10 CSR 20-200(4)(A)2.
- Minimum freeboard shall be two feet (2'). 10 CSR 20-200(4)(A)3.
- An emergency spillway shall be provided that—
  - Prevents the overtopping and cutting of berms; 10 CSR 20-200(4)(A)4.A.
  - Is compacted and vegetated or otherwise constructed to prevent erosion; 10 CSR 20-200(4)(A)4.B. and
  - Has the ability for a representative sample to be collected, if discharging. 10 CSR 20-200(4)(A)4.C.
  - The soil of the lagoon bottom shall be compacted with the moisture content between two percent (2%) below and four percent (4%) above the optimum water content and compacted to at least ninety-five percent (95%) maximum dry density test method. 10 CSR 20-200(4)(B)
- The lagoon shall be sealed to ensure that seepage loss is as low as possible and has a design permeability not exceeding 1.0×10^{-7} cm/sec. 10 CSR 20-200(4)(C)1.
- The minimum thickness of the compacted clay liner must be twelve inches (12"). For permeability coefficients greater than 1.0×10^{-7} cm/sec or for heads over five feet (5') such as an aerated lagoon system, the following formula shall be used to determine minimum seal thickness, Equation 200-1 per 10 CSR 20-200(4)(C)2.:

Equation 200-1

$$t = \frac{H \times K}{5.4 \times 10^{-7\ \mathrm{cm/sec}}}$$

where:

K = the permeability coefficient of the soil in question;
H = the head of water in the lagoon; and
t = the thickness of the soil seal.

- Synthetic seals thickness may vary due to liner material but the liner thickness shall be no less than two-hundredths inch (.02") or twenty (20) mil and be the appropriate material to perform under existing conditions. 10 CSR 20-200(4)(C)3.
- Seep collars shall be provided on drainpipes where they pass through the lagoon seal. 10 CSR 20-200(4)(C)4.
- Unlined corrugated metal pipe shall not be used for influent lines due to corrosion problems. 10 CSR 20-8.200 (4) (D) 1.
- A manhole shall be installed with its invert at least six inches (6") above the maximum operating level of the lagoon, prior to the entrance into the primary cell, and provide sufficient hydraulic head without surcharging the manhole. 10 CSR 20-8.200 (4) (D) 2.

- The influent line(s) shall be located along the bottom of the lagoon so that the top of the pipe is just below the average elevation of the lagoon seal; however, there shall be an adequate seal below the pipe. 10 CSR 20-8.200 (4) (D) 3.
- The wetted application area of a surface irrigation system must be located
  - Outside of flood-prone areas having a flood frequency greater than once every ten (10) years; 10 CSR 20-8.200 (6) (B) 1.
  - At least one hundred fifty feet (150') from existing dwellings or public use areas, excluding roads or highways; 10 CSR 20-8.200 (6) (B) 2. A.
  - At least fifty feet (50') inside the property line; 10 CSR 20-8.200 (6) (B) 2. B.
  - At least three hundred feet (300') from any sinkhole, losing stream, or other structure or physiographic feature that may provide direct connection between the ground water table and the surface; 10 CSR 20-8.200 (6)
  - (B) 2. C.
  - At least three hundred feet (300') from any existing potable water supply well not located on the property. Adequate protection shall be provided for wells located on the application site; 10 CSR 20-8.200 (6) (B) 2. D.
  - One hundred feet (100') to wetlands, ponds, gaining streams (classified or unclassified; perennial or intermittent); 10 CSR 20-8.200 (6) (B) 2. E. and
  - If an established vegetated buffer or the wastewater is disinfected, the setbacks established in subsections (A)–(E) above may be decreased if the applicant demonstrates the risk is mitigated. 10 CSR 20-8.200 (6) (B) 2. F.
- The wetted application area of a surface irrigation system must be Fenced, or if not fenced, provide in the construction permit application or the facility plan, the—
  - Method of disinfection being utilized; 10 CSR 20-8.200 (6) (B) 3. A.
  - Suitable barriers in place, 10 CSR 20-8.200 (6) (B) 3. B. or
  - Details on how public access is limited and not expected to be present. 10 CSR 20-8.200 (6) (B) 3. C.
- At a minimum, treatment prior to irrigation shall provide performance equivalent to that obtained from a primary wastewater lagoon cell and include 75 days wastewater storage in addition to the primary volume. 10 CSR 20-8.200 (6) (C)
- The public shall not be allowed into an area when irrigation is being conducted; 10 CSR 20-8.200 (6) (F) 2.

10. Upon completion of construction:

A. Missouri Cobalt will become the continuing authority for operation and maintenance of these facilities;

B. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications; and

C. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N) with a request to issue the modified operating permit.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

Construstion of the 2nd Tailings storage basin and modification of the 1st Tailings storage basin to provide additional capacity for process wastewaters and stormwater from the remining of the tailings.

2. FACILITY DESCRIPTION

This is an industrial mining facility, SIC # 1031 & 1629; Inactive metals mine site, formerly engaged in lead and cobalt mining. Missouri Cobalt is located at 1050 County Road 263, Fredricktown, in Madison County, Missouri. Missouri Cobalt has also been identified as the fomer Madison Mine and is currently undergoing CERCLA remediation onsite. Construction is to handle the increased throughput through the processing plant, an increase from 100 tons per day and increase in flows from 92 gpm to 331 gpm average, for a design average flow of 476,640 gpd. Processed wastewater will be recycled for re-use in the plant. A recycling basin is needed to enable solids settling out of the wastewater as part of the recycling process. See process diagram in Appendix A.

3. COMPLIANCE PARAMETERS

For the storage basin, the facility is required to monitor freeboard, daily precipitation, volume of water land applied, application area, and solids land applied. The facility will need to test the following parameters on a quarterly basis before land applying and sample if it discharges through the emergency spillway on the storage basin.

Parameter	Units
Flow	MGD
Total Suspended Solids	mg/L
Arsenic, Total Recoverable	µg/L
Cadmium, Total Recoverable	µg/L
Cobalt, Total Recoverable	µg/L
Copper, Total Recoverable	µg/L
Lead , Total Recoverable	µg/L
Nickel, Total Recoverable	µg/L
Zinc, Total Recoverable	µg/L
pH	SU
Chloride	mg/L
Sulfate	mg/L
Cyanide	µg/L

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Existing major components which will remain in use include the following:

- Storage Basin No. 1 was constructed under CP0002087 in 2019. The basin has 3:1 sloping walls and is constructed with a 12 inch thick compacted clay liner, with a permeability of 9.9×10^{-9} cm/sec.

Construction will cover the following items:

- Storage Basin No. 1 was modified to increase the berm height by 6 ft to allow for additional storage and to add an emergency spillway.
    - The basin is 225 ft by 200 ft with a depth of 16 ft, providing a volume of 3,016,138 gallons to the emergency overflow level.
        - At design average flow, this provides 6.33 days of storage.
        - At peak flow, this provides 5.44 days of storage.
    - There is 2 feet of freeboard from the emergency spillway to the top of the berm and 1 foot between the maximum operating level and the emergency spillway and 2 ft of freeboard.
        - The 1-in-10 year storm event is expected to add 149,443 gallons of water to the storage basin.
        - The surface area at the overflow level is 0.976 acres.
    - The emergency spillway will be 20 ft wide by 20 ft long and 2 ft deep.
    - The berm width is 20 ft.
- Transfer Pipe - flows will be transferred from Basin #1 to Basin #2 through a 3 inch HDPE pipe, which will have a design flow of 92 gallons per minute and a velocity of through the pipe of 4.32 ft/sec.
- Storage Basin No. 2 will be constructed onsite.
    - The geohydrological evaluation had a moderate collapse potential rating.
    - Minimum 12 inch thick clay liner with a permeability of 9.9×10^{-9} cm/sec.
    - Surface area of 10.76 acres, with a drainage area of 11.9 acres into the basin.
    - The basin will be 700 x 660 ft with an operating depth of 22 feet, providing approximately 63,480,548 gallons of capacity. There is 2 feet of freeboard from the emergency spillway to the top of the berm and 1 foot between the maximum operating level and the emergency spillway
        - The 1-in-10 year storm event is expected to add 1,816,319 gallons of water to the storage basin.
        - At the design flow of 476,640 gpd, that is 133.2 days of storage.
        - At the peak flow of 23,100 gallons per hour (554,400 gpd), that is 114.5 days of storage in Basin #2.
    - Emergency spillway is 25 feet wide and 2 feet deep to provide Missouri Cobalt the ability to collect a representative sample if a discharge does occur.
    - Berm width is 20 feet.
    - Flow into Basin #2 will be by ultrasonic level sensor and transmitter mounted on a weir installed on the gravity flow spillway from Tailings Basin 1 to Tailings Basin 2.

- Between Basin #1 and Basin #2, there is an estimated 139.5 days of storage at design average flow.
    - To maintain the minimum of 75 days of storage at the end of the basin life, based on expected solids production into the basins, the basins have a design life of a little over 3 years.
- Pump - flows through the basin will be controlled by the tailings processing discharge pump and the process water return pump. A level float and switch with alarm transmitter in Tailings Basin 2 will be used to notify plant personnel if the basin level reaches the maximum operating level.
    - The pump to be installed in Tailings Basin 2 for process water return to the tailings processing plant is a 3 phase, 60 Hz Grindex Master SH, MSHA-approved submersible pump.
        - The pump has a maximum capacity of 306 gpm with a head of 250 feet.
        - When operating at 100 gpm, the pump delivers 240 feet of head at the maximum system pumping rate of 100 gpm, which is more than the 37 feet of head required.
- Flows back to the Tailings Processing Plant will be through a 4-inch HDPE pipe with a velocity of 2.62 ft/sec at design average flow. In normal operations, flows will be recycled back through the processing plant and not land applied. Measurement of land application flow rate will be accomplished via a flow meter on the pump discharge.
- Land Application - this will occur when the storage basin is above the maximum operating level and continue until the basin falls below the maximum operating level.
    - It is assumed that the 5 year, 6 hour storm event of approximately 3.1 inches is what would trigger the need to do land application, which would be approximately 1,104,158 gallons that would need land applied.
        - The facility has 200 acres available for land application and using the limiting factor of 1 inches per day, 3 inches per week, and 24 inches per year, the facility requires approximately 40.66 acres to land apply on.
- Solids
    - The total rate of sludge accumulation is estimated to be 298 tons per day, assuming the solids concentration is 15% solids.
    - The facility is evaluating the use of EnviroTubes to reduce the amount of solids entering the storage basins.
        - The Envirotubes in pilot testing has shown a reduction in solids to 3% of the wastewater flow, which would significantly reduce the solids entering the basins and extend the useable life of the basins.
        - The calculations for the lifespan of the basins is based on not using the Envirotubes.
    - Subsequent to the planned capping of the D Tailings area as part the ongoing site CERCLA Action, solids will be deposited in surface impoundments to be permitted under the MDNR Metallic Minerals Waste Management (MMWM) program.

5. OPERATING PERMIT

Operating permit MO-0098752 will require a modification to reflect the construction activities. The modified Missouri Cobalt operating permit was successfully public noticed from July 17, 2020 to August 17, 2020 with comments received from the permittee on redesigns and change of operations impacting the construction permit.

Submit the Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N) and request the operating permit modification be issued.

With your CP application, an operating permit modification was submitted for public notice to reflect the change in your operating permit. Your operating permit application for a renewal will be due before your CP is expired. The modification action does not fulfill the renewal application obligation. A renewal application must be filed before April 3, 2021. If you have questions on completing the renewal application, please contact the NPDES permitting section at 573-751-1300.

V. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 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

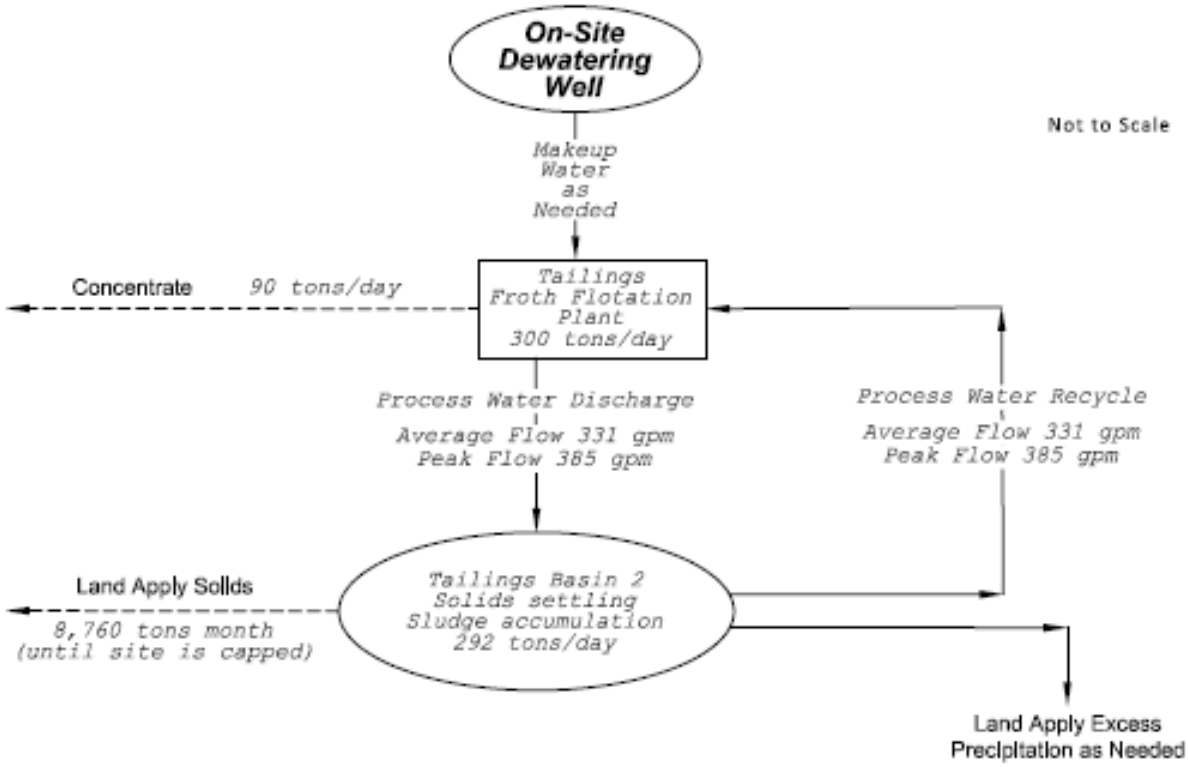
Leasue Meyers, EI
Engineering Section
Leasue.meyers@dnr.mo.gov

Cailie Carlile, P.E.
Engineering Section
Cailie.carlile@dnr.mo.gov

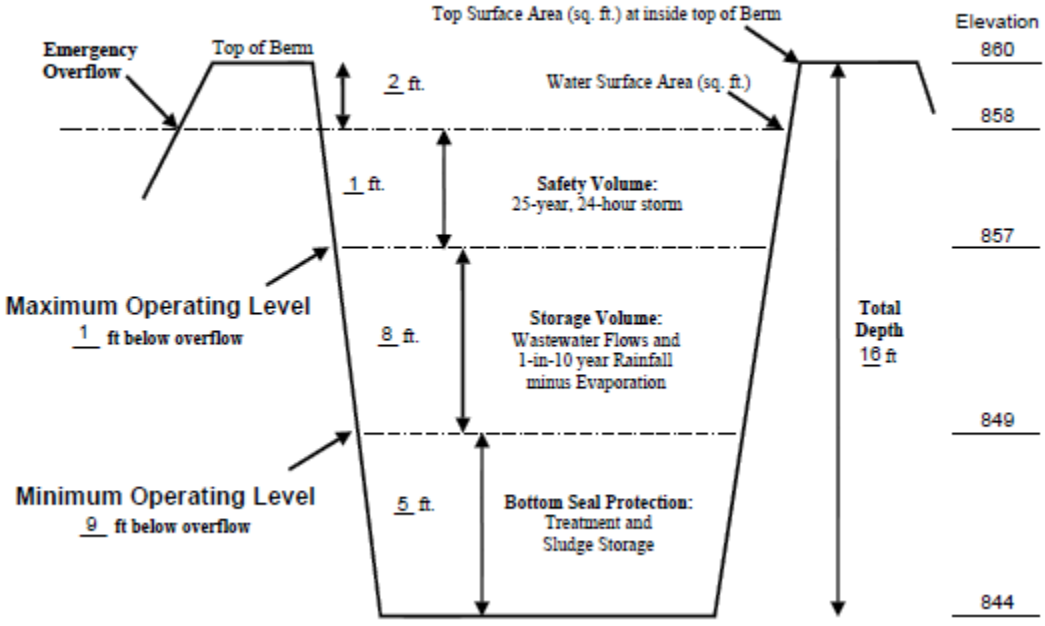
APPENDIX

- **Process Flow Diagram**
- **Storage Basin Diagram**

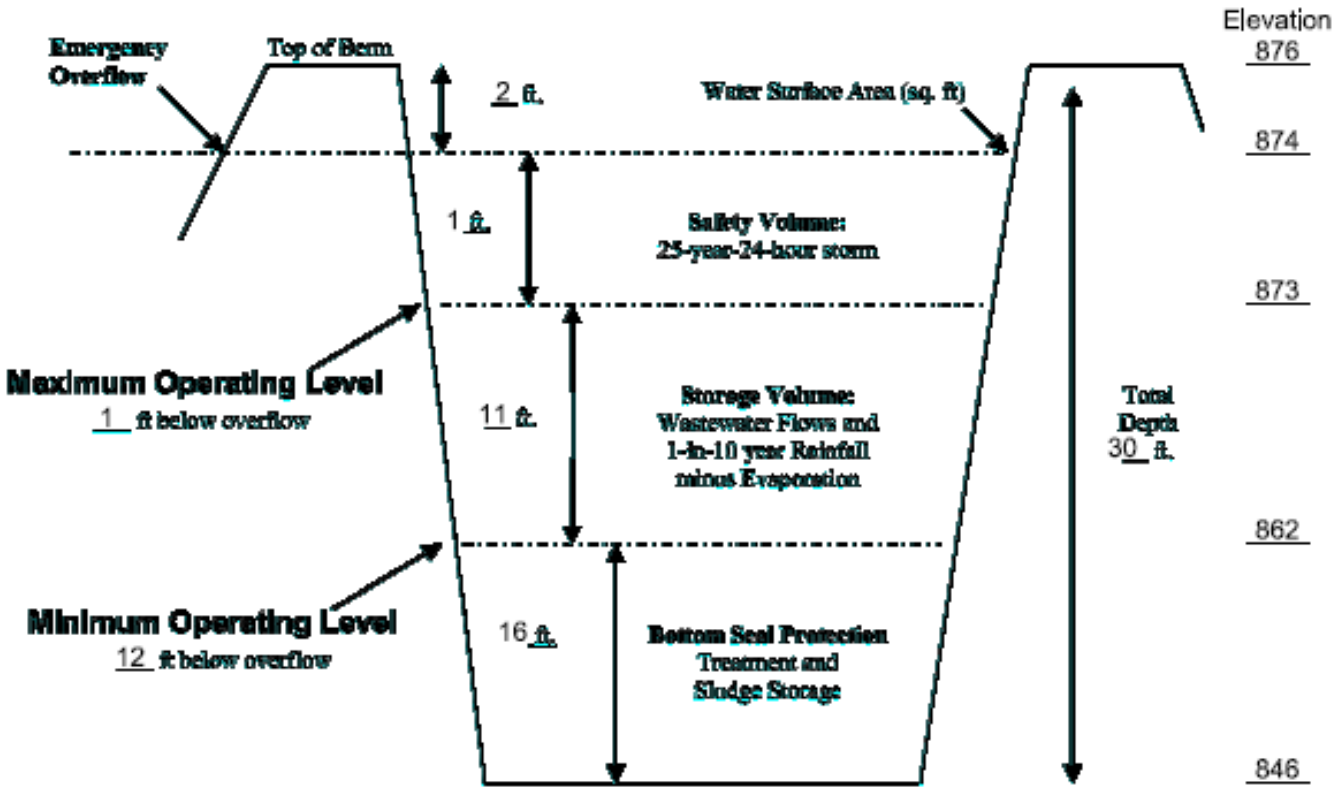
Appendix A- Process Flow Diagram



Appendix B- Storage Basin #1 Diagram



APPENDIX C- STORAGE BASIN #2 DIAGRAM



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT – WASTEWATER TREATMENT FACILITY

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED	CHECK NO.
DATE RECEIVED	

APPLICATION OVERVIEW

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. **All applicants must complete Part A.** Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. **Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.**

PART A – BASIC INFORMATION

1.0 APPLICATION INFORMATION (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

1.1 Is this a Federal/State funded project? ☐ YES ☑ N/A Funding Agency: _____ Project #: _____

1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
☐ YES Date of Approval: _____ ☑ N/A

1.3 Has the department approved the proposed project's facility plan*?
☑ YES Date of Approval: _____ ☐ NO (If No, complete No. 1.4.)

1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan* for wastewater treatment facilities included with this application?
☐ YES ☐ NO ☐ Exempt because _____

1.5 Is a copy of the appropriate plans* and specifications* included with this application?
☑ YES Denote which form is submitted: ☐ Hard copy ☑ Electronic copy (See instructions.) ☐ NO

1.6 Is a summary of design* included with this application? ☑ YES ☐ NO

1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?
☐ YES Date of submittal: _____
☐ Enclosed is the appropriate operating permit application and fee submittal. Denote which form: ☐ A ☐ B ☐ B2
☑ N/A: However, In the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice? ☑ YES ☐ NO

1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? ☐ YES ☑ NO

1.9 Is the appropriate fee or JetPay confirmation included with this application? ☑ YES ☐ NO
See Section 7.0

* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT
Missouri Cobalt Tailings Basin 2

2.2 ESTIMATED PROJECT CONSTRUCTION COST
$ 250,000

2.3 PROJECT DESCRIPTION
Construction of a second tailings basin for settling of solids from the Missouri Cobalt tailings processing plant wastewater discharge. Water will be recycled back to the plant for re-use. The tailings basin will be a No Discharge system.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Initially, reprocessed tailings will be land applied to the adjacent D tailings area under terms of the site Consent Agreement . Once the D tailings area is capped, tailings will accumulate in the basin until pond closure.

2.5 DESIGN INFORMATION

A. Current population: NA ; Design population: NA

B. Actual Flow: 0.48M gpd; Design Average Flow: 0.48M gpd;
Actual Peak Daily Flow: 0.55M gpd; Design Maximum Daily Flow: 0.55M gpd; Design Wet Weather Event: _____

2.6 ADDITIONAL INFORMATION

A. Is a topographic map attached? ☑ YES ☐ NO

B. Is a process flow diagram attached? ☑ YES ☐ NO

3.0 WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
N/A - this is a no discharge facility		

ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE	COUNTY

Wastewater Treatment Facility: Mo- (Outfall Of)

3.1 Legal Description: _____ ¼, _____ ¼, _____ ¼, Sec. _____, T _____, R _____
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: _____

4.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Missouri Cobalt	(314) 620-5004	bwright@mocobalt.com

ADDRESS	CITY	STATE	ZIP CODE
1530 S. Second Street St. Louis	St. Louis	Missouri	63104

5.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements.

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Same as above		

ADDRESS	CITY	STATE	ZIP CODE

5.1 A letter from the continuing authority, if different than the owner, is included with this application. ☐ YES ☐ NO ☑ N/A

5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.

A. Is a copy of the certificate of convenience and necessity included with this application? ☐ YES ☐ NO

5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.

A. Is a copy of the as-filed restrictions and covenants included with this application? ☐ YES ☐ NO

B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? ☐ YES ☐ NO

C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? ☐ YES ☐ NO

D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? ☐ YES ☐ NO

6.0 ENGINEER

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Mary M. Juan	(314) 480-4601	maryj@environmentalops.com

ADDRESS	CITY	STATE	ZIP CODE
1530 South Second Street	St. Louis	Missouri	63104

7.0 APPLICATION FEE

☐ CHECK NUMBER ☑ JETPAY CONFIRMATION NUMBER 20020706

8.0 PROJECT OWNER: 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.

PROJECT OWNER SIGNATURE Brian Wright

PRINTED NAME	DATE
Brian Wright	12/29/2020

TITLE OR CORPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Director of Construction and Mine Development	(314) 620-5004	bwright@mocobalt.com

Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.