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 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

| | |
|---|---|
| Permit No. | MO-0110086 |
| Owner: | Warco Manufacturing Company, Inc. |
| Address: | P.O. Box 48, Marthasville, MO 63357 |
| Continuing Authority: | Same as above |
| Address: | Same as above |
| Facility Name: | Warco Manufacturing Company, Inc. |
| Facility Address: | 1401 Highway D East, P.O. Box 48, Marthasville, MO 63357 |
| Legal Description: | See page 2 |
| UTM Coordinates: | See page 2 |
| Receiving Stream: | Tributary to Tuque Creek |
| First Classified Stream and ID: | Tuque Creek (P) (1610) |
| USGS Basin & Sub-watershed No.: | 10300200-0506 |

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

## FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater and stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

December 1, 2016
Effective Date

Harry D. Bozoian, Director, Department of Natural Resources

December 31, 2020
Expiration Date

John Madras, Director, Water Protection Program

## FACILITY DESCRIPTION (CONTINUED)

Warco Manufacturing Inc. manufactures electrical ceramics for transformers and related purposes. The ceramics are made of high quality clay slabs, molded, dried, and glazed on-site. They also have a foundry for aluminum, brass, and copper for joining to the insulator. All metal fines are collected and recycled. The facility discharges process wastewater from an inside floor drain to a lagoon with one discharging outfall. This wastewater is largely produced from rinsing molds and the filter press and consists of water high in suspended sediment and semi-fluid slip material. The wastewater lagoon previously also received domestic wastewater from the facility; however, this lagoon usage has been discontinued. The lagoon has not been cleaned since the domestic use; therefore, it is still classified as a domestic waste holding structure. Cooling water is produced by this facility but is not discharged; it is currently recycled back into the cooling system or hauled by a contract hauler.

Domestic waste is now discharged through a subsurface land application system with a septic tank. It is regulated by the Warren County Health Department as the design flow is less than 3000 gallons per day.

The facility also has one stormwater outfall which receives water from the shipping and receiving portion of the facility as well as open-top dumpsters which contain clay discard and damaged/unsaleable product. All of the manufacturing process is conducted under-roof. All oils and coolants are stored under-roof. The loading dock activities do not take place under-roof. Pallets and cardboard are stored outside. Shipping containers that originally contained copper are also stored outside; the copper product is removed prior to outdoor storage.

There is a large propane tank outside, along with a storage tank which contains fuel oil for the facility's furnace, which is inside secondary containment.

OUTFALL #001 – Process Wastewater; SIC # 3264, 4952; NAICS #327110
Receives process water from a two cell aerated earthen lagoon. Industrial and domestic sludge is retained in the lagoon.

| | |
|---|---|
| Legal Description: | Landgrant 1739, Warren County |
| UTM Coordinates: | X = 671346, Y =4278373 |
| Design Flow: | 0.0040 MGD |
| Average Flow: | 0.0022 MGD |

OUTFALL #002– Stormwater; SIC # 3264; NAICS #327110
Receives stormwater from the loading dock and parking lot of the facility. This outfall has been moved in this permit to reflect an outfall location more representative of discharge at this facility. The previous location of this outfall largely captured roof runoff. There is no treatment of stormwater; however, there is a grassy vegetative buffer of approximately six to eight feet in width between the parking lot and entry into the stream corridor.

| | |
|---|---|
| Legal Description: | Landgrant 1739, Warren County |
| UTM Coordinates: | X = 671337, Y = 4278243 |
| Est. Flow in a 10 yr. 24 hr. Rainfall: | 0.12 MGD |

PERMITTED FEATURE #003 – Wastewater holding lagoon, SIC #3264, 4952; NAICS #327110
Two cell aerated earthen lagoon. Receives industrial process wastewater. Previously received domestic wastewater; sludge from this use has not been removed.

| | |
|---|---|
| Legal Description: | Landgrant 1739, Warren County |
| UTM Coordinates: | X = 671346, Y =4278373 |
| Design Flow: | 0.0040 MGD |
| Average Flow: | 0.0022 MGD |

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

| **OUTFALL #001** *main outfall* | **TABLE A-1 INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** | | | | | |
|---|---|---|---|---|---|---|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective on **December 1, 2016** and remain in effect through **November 30, 2017**. Such discharges shall be controlled, limited and monitored by the permittee as specified below: | | | | | | |
| EFFLUENT PARAMETERS | UNITS | INTERIM EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| PHYSICAL | | | | | | |
| Flow | MGD | * | | * | once/month | 24 hr. total |
| Temperature | °F | * | | * | once/month | measured |
| CONVENTIONAL | | | | | | |
| Biochemical Oxygen Demand$_5$ (BOD$_5$) | mg/L | 45 | | 30 | once/month | grab |
| Chemical Oxygen Demand (COD) | mg/L | * | | * | once/month | grab |
| *E. coli* ± | #/100 ml | * | | * | once/month | grab |
| Oil & Grease | mg/L | 10 | | 10 | once/month | grab |
| pH Ω | SU | 6.5 to 9.0 | | 6.5 to 9.0 | once/month | grab |
| Settleable Solids | mL/L/hr | * | | * | once/month | grab |
| Total Suspended Solids | mg/L | 45 | | 30 | once/month | grab |
| METALS | | | | | | |
| Aluminum, Total Recoverable | µg/L | * | | * | once/month | grab |
| Zinc, Total Recoverable | µg/L | * | | * | once/month | grab |
| NUTRIENTS | | | | | | |
| Ammonia as N | | | | | | |
| (April 1 – Sept 30) | mg/L | 3.6 | | 1.4 | once/month | grab |
| (Oct 1 – March 31) | mg/L | 7.5 | | 2.9 | once/month | grab |
| MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE JANUARY 28, 2017. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | | |
| QUARTERLY METAL | | | | | | |
| Copper, Total Recoverable | µg/L | * | | * | once/quarter◊ | grab |
| MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2017. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | | |

| **OUTFALL #001**<br>*main outfall* | **TABLE A-2**<br>**FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** |
|---|---|

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **December 1, 2017** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

| EFFLUENT PARAMETERS | UNITS | FINAL EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| PHYSICAL | | | | | | |
| Flow | MGD | * | | * | once/month | 24 hr. total |
| Temperature | °F | * | | * | once/month | measured |
| CONVENTIONAL | | | | | | |
| Biochemical Oxygen Demand$_5$ (BOD$_5$) | mg/L | 45 | | 30 | once/month | grab |
| Chemical Oxygen Demand (COD) | mg/L | 120 | | 90 | once/month | grab |
| *E. coli* ± | #/100 ml | 1030 | | 206 | once/month | grab |
| Oil & Grease | mg/L | 10 | | 10 | once/month | grab |
| pH Ω | SU | 6.5 to 9.0 | | 6.5 to 9.0 | once/month | grab |
| Settleable Solids | mL/L/hr | 1.5 | | 1.0 | once/month | grab |
| Total Suspended Solids | mg/L | 45 | | 30 | once/month | grab |
| METALS | | | | | | |
| Aluminum, Total Recoverable | µg/L | * | | * | once/month | grab |
| Zinc, Total Recoverable | µg/L | * | | * | once/month | grab |
| NUTRIENTS | | | | | | |
| Ammonia as N | | | | | | |
| (April 1 – Sept 30) | mg/L | 3.6 | | 1.4 | once/month | grab |
| (Oct 1 – March 31) | mg/L | 7.5 | | 2.9 | once/month | grab |
| MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE JANUARY 28, 2018. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | | |
| QUARTERLY METAL | | | | | | |
| Copper, Total Recoverable | µg/L | * | | * | once/quarter◊ | grab |
| MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2018. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | | |

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

| **OUTFALL #002**<br>*Stormwater Only* | **TABLE A-3**<br>**FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** | | | | | |
|---|---|---|---|---|---|---|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **December 1, 2016** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below | | | | | | |
| EFFLUENT PARAMETERS | UNITS | INTERIM LIMITATIONS | | BENCHMARKS | MONITORING REQUIREMENTS∞ | |
| | | DAILY MAXIMUM | MONTHLY AVERAGE | | MEASUREMENT FREQUENCY◊ | SAMPLE TYPE |
| PHYSICAL | | | | | | |
| Flow | MGD | * | | - | once/quarter | 24 hr. est |
| Precipitation | inches | * | | - | once/quarter | measured |
| CONVENTIONAL | | | | | | |
| Chemical Oxygen Demand | mg/L | 120 | | - | once/quarter | grab |
| Oil & Grease | mg/L | 10 | | - | once/quarter | grab |
| pH Ω | SU | 6.5 to 9.0 | | - | once/quarter | grab |
| Settleable Solids | mL/L/hr | ** | | 1.5 | once/quarter | grab |
| Total Suspended Solids | mg/L | ** | | 100 | once/quarter | grab |
| METALS | | | | | | |
| Aluminum, Total Recoverable | µg/L | * | | - | once/quarter | grab |
| Copper, Total Recoverable | µg/L | * | | - | once/quarter | grab |
| Zinc, Total Recoverable | µg/L | * | | - | once/quarter | grab |
| MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2017. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | | |

| **Permitted Feature #003**<br>*Process and domestic wastewater lagoon* | **TABLE A-5**<br>**FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** | |
|---|---|---|
| The permittee is authorized to store wastewater as specified in the application for this permit. The final limitations shall become effective on **December 1, 2016** and remain in effect until expiration of the permit. Storage and disposal of wastewater shall be controlled, limited and monitored by the permittee as specified below: | | |
| OPERATION AND MAINTENANCE | MEASUREMENT FREQUENCY | REPORTING REQUIREMENTS |
| Lagoon Operational Monitoring Report *** | -- | once/year |
| REPORT SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2018.<br>THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | |

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

* Monitoring requirement only.

** Monitoring requirement with associated benchmark. See Special Conditions #10 through #13

*** Annual operating report shall be submitted by January 28th of each year for the previous calendar year period. The summarized annual operating report shall include the following: Record of maintenance, repairs, and corrective actions performed on the lagoon during the year, number of times per month the holding structure is checked to see if it is operating properly, record of lagoon berm conditions (erosion, slope ratio, etc.) at time of checks, and description of any unusual operating conditions encountered during the year. Also included will be monthly measurements of freeboard in both cells of the lagoon.

∞ All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.

Ω The facility will report the minimum and maximum values. pH is not to be averaged.

± Final limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean.

◊ Quarterly sampling

| MINIMUM QUARTERLY SAMPLING REQUIREMENTS | | | |
|---|---|---|---|
| QUARTER | MONTHS | 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. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section IV of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at http://dnr.mo.gov/pubs/pub2481.htm .

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

C. SPECIAL CONDITIONS, CONTINUED

3. All outfalls and permitted features must be clearly marked in the field.

4. Water Quality Standards
   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
      (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
      (5) There shall be no significant human health hazard from incidental contact with the water;
      (6) There shall be no acute toxicity to livestock or wildlife watering;
      (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
      (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

5. Changes in Discharges of Toxic Pollutant
   In addition to the reporting requirements under §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) That 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) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant 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 §122.21(g)(7).
      (4) The level established by the Director in accordance with §122.44(f).

6. Report as no-discharge when a discharge does not occur during the report period.

7. Reporting of Non-Detects
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   (c) The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
   (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
   (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
   (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (C).

C. SPECIAL CONDITIONS, CONTINUED

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

9. 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.

10. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.

11. Facility SIC codes found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) shall implement a SWPPP and must be prepared and implemented within 60 days of permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Rationale and Derivation: antidegradation analysis and SWPPP in the fact sheet). The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:
   (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater. The BMPs should be designed to treat the stormwater up to the 10 year, 24 hour rain event.
   (b) For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure at http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf .
   (c) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
      i. Operational deficiencies must be corrected within seven (7) calendar days.
      ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
      iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
      iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
      v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department and EPA personnel upon request.
   (d) A provision for designating an individual to be responsible for environmental matters.
   (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.

12. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

    Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

C. SPECIAL CONDITIONS, CONTINUED

13. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
    (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
    (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
    (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that 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.
    (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
    (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property to comply with general water quality criteria, effluent limits, or benchmarks. This could include the use of straw bales, silt fences, or sediment basins, if needed. This includes sediment from on-site waste receptacles, such as dumpsters.
    (f) Ensure adequate provisions are provided to prevent surface water intrusion into the storage basin, to divert stormwater runoff around the storage basin, and to protect embankments from erosion.

14. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, 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. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to MDNR and EPA personnel.

15. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.

16. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

17. The wastewater treatment facility must be sufficiently secured to restrict entry by children, livestock, and unauthorized persons as well as to protect the facility from vandalism.

18. At least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain locked except when opened by the permittee to perform operational monitoring, sampling, maintenance, mowing, or for inspections by the Department.

19. At least one (1) warning sign shall be placed on each side of the facility enclosure in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.

20. A minimum of two (2) feet freeboard must be maintained in each lagoon cell. A lagoon level gauge, which clearly marks the minimum freeboard level, shall be provided in each lagoon cell.

21. The berms of the lagoons and storage basins shall be mowed and kept free of any deep-rooted vegetation, animal dens, or other potential sources of damage to the berms.

22. The facility shall ensure that adequate provisions are provided to prevent surface water intrusion into the lagoons and storage basins and to divert stormwater runoff around the lagoon and protect embankments from erosion.

D. SCHEDULE OF COMPLIANCE

Schedules of compliance are allowed under 40 CFR 122.47. The facility shall attain compliance with final effluent limitations for Chemical Oxygen Demand (COD), *E. coli*, and settleable solids at outfall #001 as soon as reasonably achievable.

Within 1 years of the effective date of this permit, the permittee shall attain compliance with the final effluent limits for COD, *E. coli*, and settleable solids at outfall #001.

# MISSOURI DEPARTMENT OF NATURAL RESOURCES
# FACT SHEET
# FOR THE PURPOSE OF RENEWAL
# OF
# MO-0110086
# WARCO MANUFACTURING

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution 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 (Section 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" Section 644 as amended). MSOPs 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)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

## Part I. FACILITY INFORMATION

| | | |
|---|---|---|
| Facility Type: | Industrial | |
| Facility SIC Code(s): | 3264, 4952 | |
| Facility NAICS Code: | 327110 | |
| Application Date: | 09/06/2013 | |
| Expiration Date: | 05/22/2013 | |
| Last Inspection: | 09/22/2015 | Found to be Not in Compliance |

**FACILITY DESCRIPTION:**
Warco Manufacturing Inc. manufactures electrical ceramics for transformers and related purposes. The ceramics are made of high quality clay slabs, molded, dried, and glazed on-site. They also have a foundry for aluminum, brass, and copper for joining to the insulator. All metal fines are collected and recycled. The facility discharges process wastewater from an inside floor drain to a lagoon with one discharging outfall. This wastewater is largely produced from rinsing molds and the filter press and consists of water high in suspended sediment and semi-fluid slip material. The wastewater lagoon previously also received domestic wastewater from the facility; however, this lagoon usage has been discontinued. The lagoon has not been cleaned since the domestic use; therefore, it is still classified as a domestic waste holding structure. Cooling water is produced by this facility but is not discharged; it is currently recycled back into the cooling system or hauled by a contract hauler.

Domestic waste is now discharged through a subsurface land application system with a septic tank. It is regulated by the Warren County Health Department as the design flow is less than 3000 gallons per day.

The facility also has one stormwater outfall which receives water from the shipping and receiving portion of the facility as well as open-top dumpsters which contain clay discard and damaged/unsaleable product. All of the manufacturing process is conducted under-roof. All oils and coolants are stored under-roof. The loading dock activities do not take place under-roof. Pallets and cardboard are stored outside. Shipping containers that originally contained copper are also stored outside; the copper product is removed prior to outdoor storage.

There is a large propane tank outside, along with a storage tank which contains fuel oil for the facility's furnace. Both are located in secondary containment structures.

**OUTFALLS TABLE:**

| OUTFALL | AVERAGE FLOW (MGD) | DESIGN FLOW (MGD) | TREATMENT LEVEL | EFFLUENT TYPE |
|---|---|---|---|---|
| #001 | 0.0022 | 0.0040 | Secondary-Lagoon | industrial process water, residual domestic wastewater |
| #002 | dependent on precipitation | 0.12* | BMPs | industrial stormwater |

*Estimated flow in a 10 year 24 hour rainfall, based on Rational Method.

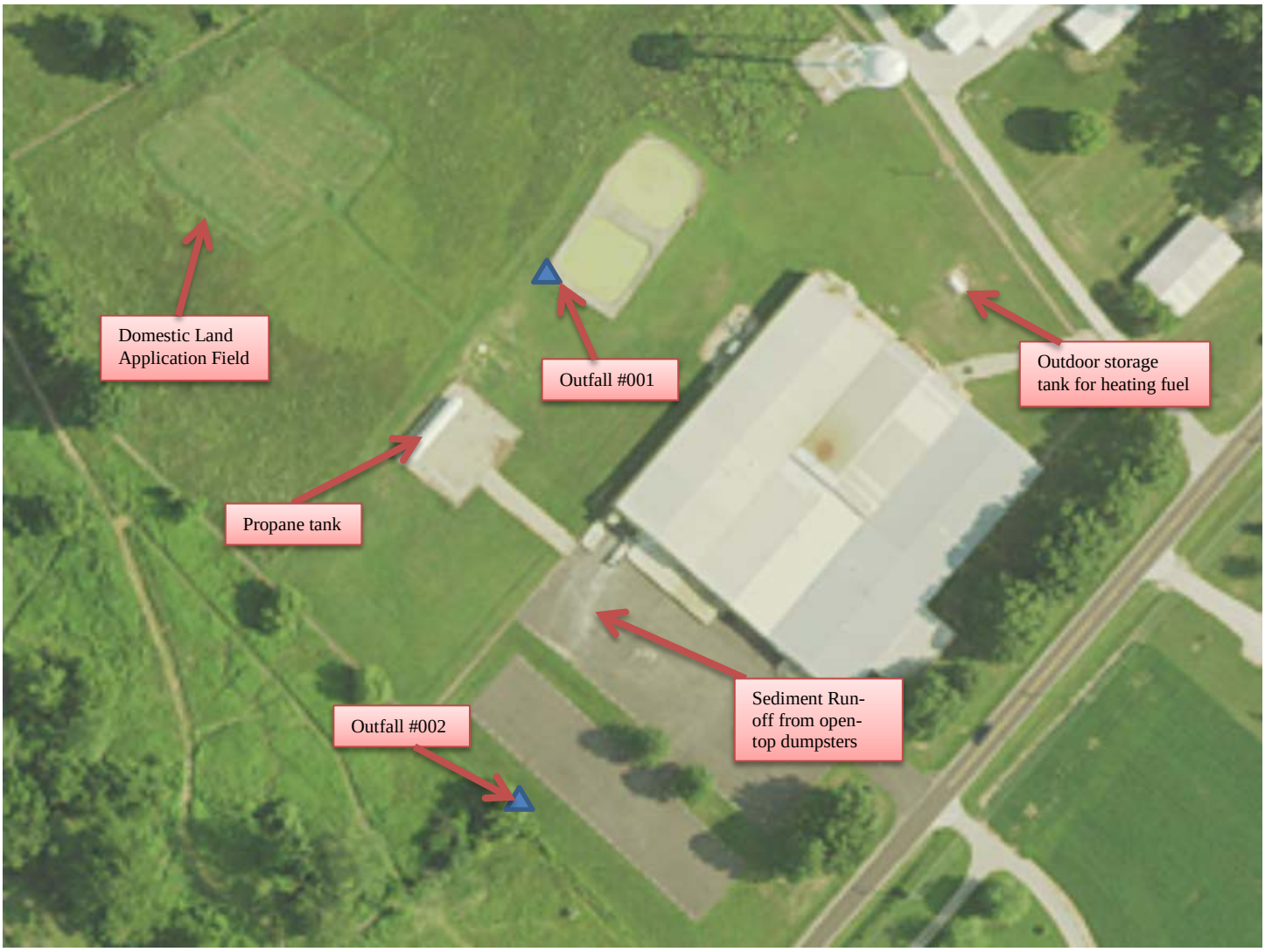
**FACILITY PERFORMANCE HISTORY & COMMENTS:**

The discharge monitoring reports were reviewed for the last five years. Outfall #001 had two reported exceedances of Ammonia and one reported exceedance of Total Suspended Solids. Outfall #002 had three reported exceedances of Chemical Oxygen Demand (COD). A site inspection was performed on 09/22/2015 by Martha Cruse of the St. Louis Regional Office, accompanied by the permit writer and two other industrial permit staff. The facility was found to be not in compliance at the time of inspection due to minor berm repair conditions. The inspection report specified a failure to maintain berm slopes of the lagoon and a failure to provide a minimum of two feet of freeboard above the wastewater level in the lagoon. Not associated with violations of their current permit, the facility was also found to not have a SWPPP. The prior permit required a "BMP plan" to be written; one was not produced during the inspection. The facility was not previously required to have a SWPPP; however, this permit requires one to be written and stored on-site.

The facility was found during the inspection to be sampling the wrong location for outfall #002. This outfall has been moved in this renewal to reflect a location that captures the stormwater runoff for the facility. The permit writer observed a large plume of deposited sediment on the facility parking lot that appeared to be discharging from an onsite dumpster. The dumpster was uncovered and lined with a thin liner that was ripped in many areas. The inspection and permitting staff expressed that the permittee consider covering the dumpster or investing in a more sturdy liner. The permittee explained they rented the dumpster, and they weren't sure what was allowed. It is in the permit writer's professional judgment the facility should employ sediment capturing BMPs prior to the water entering the outfall, such as straw bales or sediment fences, if they are unable to cover or line the dumpster adequately.

See Appendix A for photos of the facility taken during the 09/22/2015 inspection.

**FACILITY MAP:**



## Part II. RECEIVING STREAM INFORMATION

**RECEIVING WATER BODY'S WATER QUALITY:**
The receiving stream Tributary to Tuque Creek has no concurrent water quality data available. A stream survey done 150 yards below the Warco wastewater outfall in August 2011 found the streambed to be dry and filled with grass and terrestrial weeds. No discharge from the facility was reported, and it was noted the facility had no apparent impact on the stream at that time. Tuque Creek is not on the 303d list, and neither the facility nor the watershed are subject to a TMDL. Neither the receiving tributary nor Tuque Creek are considered losing streams.

**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 that a body of water 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 may be developed. The TMDL shall include the WLA calculation. http://dnr.mo.gov/env/wpp/tmdl/
✓ Not applicable; this facility is not associated with a TMDL.

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**
✓ As per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's effluent limitation table and further discussed in the derivation & discussion of limits section.

Missouri or Mississippi River: ☐
Lake or Reservoir: ☐
Losing: ☐
Metropolitan No-Discharge: ☐
Special Stream: ☐
Subsurface Water: ☐
All Other Waters: ☒

**RECEIVING STREAMS TABLE:**

| OUTFALL | WATERBODY NAME | CLASS | WBID | DESIGNATED USES* | DISTANCE TO SEGMENT (MILES) | 12-DIGIT HUC |
|---|---|---|---|---|---|---|
| #001 | Tributary to Tuque Creek | n/a | n/a | GEN | 0.06 | 10300200-0506 Middle Charrette Creek |
| #001 | Tuque Creek | P | 1610 | AQL, IRR, LWW, SCR, WBC-B, HHP | 0.45 | |
| #002 | Tributary to Tuque Creek | n/a | n/a | GEN | 0.0 | |
| #002 | Tuque Creek | P | 1610 | AQL, IRR, LWW, SCR, WBC-B, HHP | 0.34 | |

n/a not applicable
WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 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
* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].
Uses which may be found in the receiving streams table, above:
10 CSR 20-7.031(1)(C)1.:
**AQL** = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is 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 AQL effluent limitations in 10 CSR 20-7.031 Table A 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 supporting swimming; **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; **IRR** = Irrigation for use on crops utilized for human or livestock consumption; **LWW =** Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection); **DWS** = Drinking Water Supply; **IND** = Industrial water supply

**MIXING CONSIDERATIONS:**
Mixing zone: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of initial dilution: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

**RECEIVING STREAM MONITORING REQUIREMENTS:**
No receiving water monitoring requirements are recommended at this time.

## Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & 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 does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)].

**ANTI-BACKSLIDING:**
Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] 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 for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
  - ✓ Material and substantial alterations or additions to the permitted facility occurred after permit issuance justify the application of a less stringent effluent limitation.
    - The facility no longer discharges domestic waste to surface waters, therefore chlorination is not necessary. Total Residual Chlorine has been removed from this permit.
  - ✓ 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.
    - 5 years of DMR data were supplied to the permit writer which support conversions of some limits on outfall #002 to benchmarks (See below for more information).
  - ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
    - The previous permit limits for outfall #002 were established in error, based on limits process wastewater, however, this is a stormwater outfall. This renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained.
    - Limits for fecal coliform have been replaced with limits for E. coli following a change in permitting procedures and regulations.

**ANTIDEGRADATION REVIEW:**
For process water discharge with new, altered, or expanding discharges, 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.

For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the antidegradation analysis 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.

**BENCHMARKS:**
When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

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 discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 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), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on water quality standards or other stormwater permits including guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs and is deemed protective of instream water quality and aquatic life.

**BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). 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. Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).

- ✓ Permittee is not authorized to land apply biosolids. Sludge/biosolids are stored in the lagoon. The permittee must submit a sludge management plan for approval detailing removal and disposal plans when sludge is to be removed from lagoons.

**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 permittee/facility is not currently under Water Protection Program enforcement action.

**GROUNDWATER MONITORING:**

Groundwater is a water of the state according to 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

- ✓ This facility is not required to monitor groundwater for the water protection program.

**INDUSTRIAL SLUDGE:**

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial 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 a material derived from industrial sludge.

- ✓ Permittee is not authorized to land apply industrial sludge. Sludge is stored in the lagoon. The permittee must submit a sludge management plan for approval that details removal and disposal plans when sludge is to be removed from lagoons.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that 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. If the permit writer determines any give pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant [40 CFR Part 122.44(d)(1)(iii)].

- ✓ Not applicable; an RPA was not conducted for this facility. For outfall #001, there were not enough data points to conduct an RPA for ammonia or other parameters at this facility. For outfall #002, this permit establishes permit limits and benchmarks for stormwater. The department has determined stormwater is not a continuous discharge and is therefore not subject to mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or the discharge monitoring data for the last five years and comparing those data to the water quality standard.

**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 providing certain conditions are met.

- ✓ Applicable; the time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(12)]. The facility has been given a schedule of compliance to meet final effluent limits for COD, *E. coli*, and settleable solids at outfall #001. This will allow the permittee to evaluate the discharge of these pollutants and adjust treatment accordingly. If the permittee has trouble meeting these limitations in the interim period, new treatment mechanisms may need to be considered for implementation. Converting the lagoon to a no-discharge structure was discussed during the 2015 inspection, as well as cleaning the basin to remove any residual domestic wastes.

**SPILL REPORTING:**
Per 10 CSR 24-3.010, 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

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP):**
In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee 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. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure (http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: http://dnr.mo.gov/forms/index.html.

✓ Applicable; a SWPPP shall be developed and implemented for this facility.

**VARIANCE:**

As 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 shall be 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.

✓ Not applicable; the operating permit is not drafted under premise of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the WLA is the 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 provide adequate protection for the receiving waters, then the other must be used.

✓ Applicable; wasteload allocations were calculated where relevant using water quality criteria or water quality model results and by applying the dilution equation below:

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

(EPA/505/2-90-001, Section 4.5.5)

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

- Acute wasteload allocations (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 (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).
- Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's *Technical Support Document For Water Quality-based Toxics Control* or TSD EPA/505/2-90-001; March 1991.
- Number of Samples "n": In accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is 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 distribution or treatment performance 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 normally 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 using an assumed number of samples is "n = 4" at a minimum. For total ammonia as nitrogen, "n = 30" is used.

**WLA MODELING:**
Permittees 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 STANDARDS:**
Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**
A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with, or through synergistic responses when mixed with receiving stream water. Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures the provisions in 10 CSR 20-6 and the Water Quality Standards in 10 CSR 20-7 are being met. Under 10 CSR 20-6.010(8)(A)4, the department may require other terms and conditions it deems necessary to assure compliance with the CWA and related regulations of the Missouri Clean Water Commission. The following Missouri Clean Water Laws (MCWL) apply: §644.051.3. requires the department to set permit conditions complying with the MCWL and CWA; §644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits); and §644.051.5. is the basic authority to require testing conditions.
- ✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility. The facility does not meet any of the required thresholds for WET testing. In addition, the pollutants for this industry are well characterized.

## Part IV. 2013 WATER QUALITY CRITERIA FOR AMMONIA

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) finalized new water quality criteria for ammonia, based on toxicity studies of mussels and gill breathing snails. Missouri's current ammonia criteria are based on toxicity testing of several species, but did not include data from mussels or gill breathing snails. Missouri is home to 69 of North America's mussel species, which are spread across the state. According to the Missouri Department of Conservation nearly two-thirds of the mussel species in Missouri are considered to be "of conservation concern". Nine species are listed as federally endangered, with an additional species currently proposed as endangered and another species proposed as threatened.

The adult forms of mussels that are seen in rivers, lakes, and streams are sensitive to pollutants because they are sedentary filter feeders. They vacuum up many pollutants with the food they bring in and cannot escape to new habitats, so they can accumulate toxins in their bodies and die. But very young mussels, called glochidia, are exceptionally sensitive to ammonia in water. As a result of a citizen suit, the EPA was compelled to conduct toxicity testing and develop ammonia water quality criteria that would be protective if young mussels may be present in a waterbody. These new criteria will apply to any discharge with ammonia levels that may pose a reasonable potential to violate the standards. Nearly all discharging domestic wastewater treatment facilities (cities, subdivisions, mobile home parks, etc.), as well as certain industrial and stormwater dischargers with ammonia in their effluent, will be affected by this change in the regulations.

When new water quality criteria are established by the EPA, states must adopt them into their regulations in order to keep their authorization to issue permits under the National Pollutant Discharge Elimination System (NPDES). States are required to review their water quality standards every three years, and if new criteria have been developed they must be adopted. States may be more protective than the Federal requirements, but not less protective. Missouri does not have the resources to conduct the studies necessary for developing new water quality standards, and therefore our standards mirror those developed by the EPA; however, we will utilize any available flexibility based on actual species of mussels that are native to Missouri and their sensitivity to ammonia.

Many treatment facilities in Missouri are currently scheduled to be upgraded to comply with the current water quality standards. But these new ammonia standards may require a different treatment technology than the one being considered by the permittee. It is important that permittees discuss any new and upcoming requirements with their consulting engineers to ensure that their treatment systems are capable of complying with the new requirements. The Department encourages permittees to construct treatment technologies that can attain effluent quality that supports the EPA ammonia criteria.

Ammonia toxicity varies by temperature and by pH of the water. Assuming a stable pH value, but taking into account winter and summer temperatures, Missouri includes two seasons of ammonia effluent limitations. Current effluent limitations in this permit are:

**Summer** – 3.6 mg/L daily maximum, 1.4 mg/L monthly average. **Winter** – 7.5 mg/L daily maximum, 2.9 mg/L monthly average.

Under the new EPA criteria, where mussels of the family Unionidae are present or expected to be present, the estimated effluent limitations for a facility in a location such as this that discharges to a receiving stream with no mixing will be:

**Summer** – 1.7 mg/L daily maximum, 0.6 mg/L monthly average. **Winter** – 5.6 mg/L daily maximum, 2.1 mg/L monthly average.

Actual effluent limits will depend in part on the actual performance of the facility.

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations. For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

## Part V. EFFLUENT LIMITS DETERMINATION

### OUTFALL #001 – PROCESS WATER OUTFALL

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required under 40 CFR 122.45(d)(1) for continuous discharges not from a POTW.

| PARAMETERS OUTFALL #001 | UNIT | BASIS FOR LIMITS | DAILY MAX | MONTHLY AVG | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|---|---|---|---|---|---|---|---|---|
| PHYSICAL | | | | | | | | |
| FLOW | MGD | 1 | * | * | SAME | ONCE/MONTH | ONCE/MONTH | 24 HR. TOT |
| TEMPERATURE | °F | 1, 6 | * | * | SAME | ONCE/MONTH | ONCE/MONTH | MEASURED |
| CONVENTIONAL | | | | | | | | |
| $BOD_5$ | MG/L | 1, 6 | 45 | 30 | 45 WKLY | ONCE/MONTH | ONCE/MONTH | GRAB |
| COD | MG/L | 6 | 120 | 90 | NEW | ONCE/MONTH | ONCE/MONTH | GRAB |
| CHLORINE, TOTAL RESIDUAL | µg/L | REMOVED FROM THIS PERMIT | | | | | | |
| *E. COLI* (CFU/100mL) | ‡ | 1, 3 | 1030 | 206 | NEW | ONCE/MONTH | ONCE/MONTH | GRAB |
| FECAL COLIFORM | #/100MLS | REMOVED FROM THIS PERMIT | | | | | | |
| OIL & GREASE | MG/L | 1, 3 | 10 | 10 | 15/10 | ONCE/MONTH | ONCE/MONTH | GRAB |
| pH ǂ | SU | 1, 3 | 6.5 TO 9.0 | 6.5 to 9.0 | SAME | ONCE/MONTH | ONCE/MONTH | GRAB |
| SETTLEABLE SOLIDS | mL/L/HR | 6 | 1.5 | 1.0 | NEW | ONCE/MONTH | ONCE/MONTH | GRAB |
| TSS | MG/L | 1, 4 | 45 | 30 | SAME | ONCE/MONTH | ONCE/MONTH | GRAB |
| METALS | | | | | | | | |
| ALUMINUM, TOTAL RECOV. | µg/L | 6 | * | * | NEW | ONCE/MONTH | ONCE/MONTH | GRAB |
| COPPER, TOTAL REC. | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| ZINC, TOTAL RECOVERABLE | µg/L | 6 | * | * | NEW | ONCE/MONTH | ONCE/MONTH | GRAB |
| NUTRIENTS | | | | | | | | |
| AMMONIA AS N (APR 1 – SEPT 30) | MG/L | 2, 3 | 3.6 | 1.4 | SAME | ONCE/MONTH | ONCE/MONTH | GRAB |
| AMMONIA AS N (OCT 1 – MARCH 31) | MG/L | 2, 3 | 7.5 | 2.9 | SAME | ONCE/MONTH | ONCE/MONTH | GRAB |

* - Monitoring requirement only
ǂ The facility will report the minimum and maximum pH values; pH is not to be averaged.
‡ # of colonies/100mL; the Monthly Average for *E. coli* is a geometric mean. Testing is required only during the recreation season.
NEW - Parameter not previously established in previous state operating permit.

**Basis for Limitations Codes**:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment
7. TMDL or Permit in lieu of TMDL
8. WET Test Policy

## DERIVATION AND DISCUSSION OF LIMITS OUTFALL #001:

### PHYSICAL:

**Flow**

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee 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).

**Temperature**

Monitoring only. In accordance with 10 CSR 20-7.031(5)(D), water contaminant sources shall not cause or contribute to stream temperature in excess of ninety degrees Fahrenheit (90 °F) or thirty-two and two-ninths degrees Celsius (32 2/9 °C). In order to reduce confusion and duplicative monitoring or reporting requirements, the permit will only require that temperature be monitored and reported in degrees Fahrenheit. It is not necessary to report in both Celsius and Fahrenheit.

### CONVENTIONAL:

**Biochemical Oxygen Demand ($BOD_5$)**

Daily maximum limit of 45 mg/L with a monthly average limit of 30 mg/L. Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's water quality. These limits are retained due to the domestic waste retained in the lagoon. Chemical Oxygen Demand (COD) is a more appropriate evaluator oxygen demand in industrial wastewater; however, it is in the permit writer's best professional judgment to include $BOD_5$ to measure the stored domestic waste's influence on the effluent from this facility.

**Chemical Oxygen Demand (COD)**

Daily maximum limit of 120 mg/L and a monthly average limit of 90 mg/L. This is a new parameter for this outfall. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with process water that cause an increase in oxygen demand, and may indicate a failure of the treatment mechanism in treating for this oxygen demand. COD is a good evaluator of oxygen demand in industrial effluent.

**Chlorine, Total Residual (TRC)**

This parameter will be removed from this permit, because the permittee no longer chlorinates their effluent to meet domestic waste limits.

***Escherichia coli (E. coli)***

A daily maximum of 1030 bacteria per 100 mL and a monthly geometric mean of 206 bacteria per 100 mL –only during the recreational season (April 1 through October 31), to protect Whole Body Contact (B) designated use of the receiving stream, as per 10 CSR 20-7.031(5)(C). An effluent limit for both monthly average and daily maximum is required by 40 CFR 122.45(d). The geometric mean is calculated by multiplying all of the data points and then taking the $n^{th}$ root of this product, where n = # of samples collected. For example: Five *E. coli* samples were collected with results of 1, 4, 5, 6, and 10 (#/100 mL). Geometric mean = $5^{th}$ root of (1)(4)(5)(6)(10) = $5^{th}$ root of 1,200 = 4.1 #/100 mL.

**Oil & Grease**

Daily maximum limit of 10 mg/L, monthly average limit of 10 mg/L. There were no exceedances of the previous limits of 15 mg/L daily maximum and 10 mg/L monthly average. No schedule of compliance is necessary for this parameter, as it is in the professional judgment of the permit writer the facility can meet the limits as stated. Oil and grease is a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "Oil and grease". Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the standard for the protection of aquatic life for this parameter. 10 mg/L is the level at which sheen is estimated to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits.

**pH**

6.5 to 9.0 SU. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

**Settleable Solids (SS)**
Daily maximum limit of 1.5 mL/L/hr, and a monthly average limit of 1.0 mL/L/hr. Sediment and solids are pollutants of concern at this facility. The industrial process produces large amounts of both suspended and settleable solids. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Similar industrial facilities have permit limits of 1.5 mL/L/hour daily maximum and 1.0 mL/L/hour monthly average. These limits are considered typical and achievable.

**Total Suspended Solids (TSS)**
Daily maximum of 45 mg/L, with a monthly average of 30 mg/L. Solids are a pollutant of concern with this facility. Their industrial process generates large amounts of both suspended and settleable solids. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. These limits are continued from the previous permit, and reflect the fact that the lagoon has not been cleaned since it was used for domestic purposes.

**METALS:**

**Aluminum, Total Recoverable**
Monitoring requirement only. This facility uses kaolinite clay. Aluminum is a primary component in kaolinite, which has the general chemical formula of $Al_2Si_2O_5(OH_4)$. Monitoring will be added per the permit writer's best professional judgment. Additionally, the facility reported using a glaze which contains feldspar. Aluminum is a primary component of feldspar.

**Copper, Total Recoverable**
Monitoring only. This facility uses brass in its industrial process. Brass is an alloy of copper and zinc. During the site visit conducted 09/22/2015, it was observed that large amounts of metal fines collect on the floor of the production facility during the day. The facility is diligent in sweeping and recycling the fines, as they are valuable. However, the permit writer feels that as copper is used in the industrial process next to production areas where drains to the lagoon exist, it has the potential to be tracked into areas where drains are and discharged to the lagoon. Quarterly monitoring will be added per the permit writer's best professional judgment to evaluate the potential for these materials to be carried through track-out to other areas of the production facility.

**Zinc, Total Recoverable**
Monitoring only. This facility uses brass in its industrial process. Brass is an alloy of copper and zinc. During the site visit conducted 09/22/2015, it was observed that large amounts of metal fines collect on the floor of the production facility during the day. The facility is diligent in sweeping and recycling the fines, as they are valuable. However, the permit writer feels that as zinc is used in the industrial process next to production areas where drains to the lagoon exist, it has the potential to be tracked into areas where drains are and discharged to the lagoon. In addition, the permittee reported using a glaze which contains zinc oxide. During the inspection, it was noted that process water discharged to the lagoon was blue in color due to glaze in the discharge. Monitoring will be added per the permit writer's best professional judgment.

**NUTRIENTS:**

**Ammonia, Total as Nitrogen**
Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU No mixing considerations allowed; therefore, WLA = appropriate criterion. An RPA is not able to be conducted for this facility, as very few data points are available. The available previous data shows exceedances of the required limits; therefore the limits will be continued. These limits have changed slightly due to rounding differences, but they are largely the same. The daily maximum has changed in the summer season from 3.7 mg/L to 3.6 mg/L. The permit writer does not feel a schedule of compliance is appropriate for this limit change.

| Season | Temp ($^oC$) | pH (SU) | Total Ammonia Nitrogen CCC (mg/L) | Total Ammonia Nitrogen CMC (mg/L) |
|---|---|---|---|---|
| Summer | 26 | 7.8 | 1.5 | 12.1 |
| Winter | 6 | 7.8 | 3.1 | 12.1 |

*Summer: April 1 – September 30*
Acute WLA: $C_e = ((0.006 + 0.0)12.1 – (0.0 * 0.01))/0.006$ $C_e = 12.1$ mg/L
Chronic WLA: $C_e = ((0.006 + 0.0)1.5 – (0.0 * 0.01))/0.006$ $C_e = 1.5$ mg/L
$LTA_a$ = 12.1 mg/L (0.321) = 3.9 mg/L [CV = 0.6, 99$^{th}$ Percentile]
$LTA_c$ = 1.5 mg/L (0.780) = 1.2 mg/L [CV = 0.6, 99$^{th}$ Percentile, 30 day avg.]
Use most protective number of $LTA_a$ or $LTA_c$.
MDL = 1.2 mg/L (3.11) = **3.7 mg/L** [CV = 0.6, 99$^{th}$ Percentile]
AML = 1.2 mg/L (1.19) **= 1.4 mg/L** [CV = 0.6, 95$^{th}$ Percentile, n = 30]

*Winter: October 1 – March 31*
Acute WLA: $C_e$ = ((0.006+ 0.0)12.1 – (0.0 * 0.01))/0.006 $C_e$ = 12.1 mg/L
Chronic WLA: $C_e$ = ((0.006+ 0.0)3.1 – (0.0 * 0.01))/0.006 $C_e$ = 3.1 mg/L
$LTA_a$ = 12.1 mg/L (0.321) = 3.9 mg/L [CV = 0.6, 99th Percentile]
$LTA_c$ = 3.1 mg/L (0.780) = 2.4 mg/L [CV = 0.6, 99th Percentile, 30 day avg.]
Use most protective number of $LTA_a$ or $LTA_c$.
MDL = 2.4 mg/L (3.11) = 7.46 = **7.5 mg/L** [CV = 0.6, 99th Percentile]
AML = 2.4 mg/L (1.19) =2.85 = **2.9 mg/L** [CV = 0.6, 95th Percentile, n =30]

**OUTFALL #002 – STORMWATER OUTFALL**

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

| PARAMETERS OUTFALLS #002 | UNIT | BASIS | DAILY MAXIMUM LIMIT | BENCH-MARK | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|---|---|---|---|---|---|---|---|---|
| PHYSICAL | | | | | | | | |
| FLOW | MGD | 1 | * | - | SAME | ONCE/QUARTER | ONCE/QUARTER | 24 HR. EST |
| PRECIPITATION | INCHES | 6 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | 24 HR. TOT |
| CONVENTIONAL | | | | | | | | |
| COD | MG/L | 6 | 120 | - | 120/90 | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| OIL & GREASE | MG/L | 1, 3 | 10 | - | 15, 10 | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| pH ǂ | SU | 1, 3 | 6.5 TO 9.0 | - | SAME | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| SETTLEABLE SOLIDS | mL/L/HR | 6 | ** | 1.5 | 1.5/1.0 | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| TSS | MG/L | 6, 8 | ** | 100 | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| METALS | | | | | | | | |
| ALUMINUM, TOTAL RECOV. | µg/L | 6, 8 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| COPPER, TOTAL RECOVER. | µg/L | 6, 8 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| ZINC, TOTAL RECOVERABLE | µg/L | 6, 9 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |

* - Monitoring requirement only
** - Monitoring with associated benchmark
ǂ The facility will report the minimum and maximum pH values; pH is not to be averaged
NEW = Parameter not established in previous operating permit

**Basis for Limitations Codes**:
1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment
7. TMDL or Permit in lieu of TMDL
8. Benchmark based on MSGP
9. Benchmark based on Missouri Water Quality Standards

## DERIVATION AND DISCUSSION OF LIMITS OUTFALL #002:

### PHYSICAL:

**Flow**

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee 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).

**Precipitation**

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters. It is not necessary to report all days of precipitation during the quarter because of the readily available on-line data.

**CONVENTIONAL:**

**Chemical Oxygen Demand (COD)**
Daily maximum limit of 120 mg/L. This is continued from the previous permit. There were three exceedances of the limits in the previous permit cycle. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. COD is a good evaluator of oxygen demand in industrial effluent.

**Oil & Grease**
Daily maximum limit of 10 mg/L. There were no exceedances of the previous limits of 15 mg/L daily maximum and 10 mg/L monthly average. No schedule of compliance is necessary for this parameter, as it is in the professional judgment of the permit writer the facility can meet the limits as stated. Oil and grease is a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "Oil and grease". Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the chronic standard for this parameter. 10 mg/L is the level at which sheen is estimated to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits.

**pH**
6.5 to 9.0 SU. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

**Settleable Solids (SS)**
Monitoring, with a daily maximum benchmark of 1.5 mL/L/hr. There were no exceedances of the limits set in the previous permit. Sediment and solids are pollutants of concern at this facility. The industrial process produces large amounts of both suspended and settleable solids. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Similar industrial facilities have permit limits of 1.5 mL/L/hour daily maximum and 1.0 mL/L/hour monthly average. This is a technology based benchmark, and is considered typical and achievable.

**Total Suspended Solids (TSS)**
Monitoring, with a daily maximum benchmark of 100 mg/L. This is a new parameter for this outfall. Solids are a pollutant of concern with this facility. Their industrial process generates large amounts of both suspended and settleable solids. It was observed during the site visit on 09/22/2015 that a large amount of sediment was being discharged from an onsite dumpster, contributing to the watershed of outfall #002. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat; therefore, it is in the best professional judgment to include total suspended solids for monitoring, with a technology based benchmark to evaluate the performance of BMP measures taken by the facility.

**METALS:**

**Aluminum, Total Recoverable**
Monitoring requirement only. This facility uses aluminum in its industrial process. Aluminum is also a common component in kaolinite clay, the primary material used in the industrial process. Large amounts of clay sediment were observed in the watershed contributing to outfall #002. Monitoring will be added per the permit writer's best professional judgment.

**Copper, Total Recoverable**
Monitoring only. This facility uses brass in its industrial process. Brass is an alloy of copper and zinc. During the site visit conducted 09/22/2015, it was observed that large amounts of metal fines collect on the floor of the production facility during the day. The facility is diligent in sweeping and recycling the fines, as they are valuable. However, the permit writer feels that as copper is used in the industrial process, it may be tracked out of the facility by employees or equipment or discarded in the open top dumpster onsite. In addition, crates that previously contained copper are stored outdoors. Monitoring will be added per the permit writer's best professional judgment.

**Zinc, Total Recoverable**
Monitoring only. This facility uses brass in its industrial process. Brass is an alloy of copper and zinc. During the site visit conducted 09/22/2015, it was observed that large amounts of metal fines collect on the floor of the production facility during the day. The facility is diligent in sweeping and recycling the fines, as they are valuable. However, the permit writer feels that as zinc is used in the industrial process, it may be tracked out of the facility or possibly discarded in the open top dumpster. Monitoring will be added per the permit writer's best professional judgment.

## Part VI. SAMPLING AND REPORTING REQUIREMENTS:

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type.

**ELECTRONIC DISCHARGE MONITORING REPORTING:**
Due to upcoming federal regulations, all facilities will need to begin submitting their discharge monitoring reports electronically, called the eDMR system. To begin the process, please visit http://dnr.mo.gov/env/wpp/edmr.htm. This process is expected to save time, lessen paperwork, and reduce operating costs for both the facilities and the water protection program. Additional information may also be found at http://dnr.mo.gov/pubs/pub2474.pdf.

**SAMPLING FREQUENCY JUSTIFICATION:**
Sampling was increased to monthly on outfall #001. Monthly sampling is generally appropriate for process water flow. Weekly testing will no longer be required for domestic related parameters. The Clean Water Commission has directed the Department to proceed with amending 10 CSR 20-7.015 to reduce the sampling frequency required for *E. coli* to a lesser frequency, still protective of water quality standards, for smaller facilities, including those with discharges of 100,000 gallons per day or less. Outfall #002 sampling frequency was retained as quarterly from the previous permit. Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if they need additional data to determine if their best management technology is performing as expected. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits.

**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, and volatile organic samples.

## Part VII. 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:**
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that 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 further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also 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 three years old, that 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 become synchronized by expiring the end of the 4$^{th}$ quarter, 2020.*

**PUBLIC NOTICE:**
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. http://dnr.mo.gov/env/wpp/permits/pn/index.html Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality 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 permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general 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 wanting to submit comments regarding this proposed operating permit, then 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.

☒ - The Public Notice period for this operating permit was from 08/12/2016 to 09/12/2016. No responses were received. This permit was modified by the permit writer in a minor way after public notice to reflect the correct address for the owner, no further changes were made.

**DATE OF FACT SHEET**: 06/13/2016

**COMPLETED BY:**

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 751-8049
Amberly.schulz@dnr.mo.gov

**APPENDIX A-SELECTED PHOTOS FROM 09/22/2015 INSPECTION**

Clay slip being washed to floor drains before entering lagoon.

Floor drain near the glazing process. Wastewater from this drain discharges to the lagoon.

View of glaze, prior to being applied. Drain in the background connects to the previously pictured drain that goes to the lagoon.

Open top dumpster used for clay and other industrial materials.

White staining on parking lot leading away from the previous pictured dumpster, facing southwest.

Accumulation of clay material on side of dumpster, between dumpster and loading dock.

# 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.

# WARCO, Inc.

P.O. BOX 48 • 13497 STATE HWY D • MARTHASVILLE, MO 63357-0048
PHONE: 636-433-2212 • SALES FAX: 636-433-5510 • OFFICE FAX: 636-433-2069 • www.warcoinc.com



RECEIVED

SEP - 6 2013

WATER PROTECTION PROGRAM


August 29, 2013

Mr. Thabit H. Hamoud
Missouri Dept. of Natural Resources
Water Protection Program, Operating Permits Section
PO Box 176
Jefferson City, MO 65012-0176

Re: Warco Manufacturing Company, Inc. (MO-0110086), Permit renewal application

Dear Mr. Hamoud,

Enclosed are permit renewal applications (Forms A & C) for Warco Manufacturing Company, Inc. (MO-0110086). Please note that as discussed in correspondence regarding the previous request for termination, all domestic waste is now directed to an onsite drain field and no longer discharges through outfall #001. The only wastewater received into the lagoon is wastewater from the filter press operation, which will generate little – if any – flow through outfall# 001.

As per Amanda Sappington's letter, we would also request termination of outfall #002 (storm water runoff) at this time. Please respond with which form(s) we may need to submit for this request.

Thank you very much for your time and consideration. Please do not hesitate to contact us if you have any questions.

Sincerely,

Dale Lohmeyer, president
Warco Manufacturing Company, Inc.
13497 State Highway D
Marthasville, MO 63357

RECEIVED

SEP - 6 2013

WATER PROTECTION PROGRAM

AP 16202

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT UNDER MISSOURI CLEAN WATER LAW**

| FOR AGENCY USE ONLY | |
|---|---|
| CHECK NUMBER | |
| DATE RECEIVED 9/6/13 | FEE SUBMITTED 0 SB |

**Note ▶** PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

**1.** This application is for:

- ☐ An operating permit and antidegradation review public notice
- ☐ A construction permit following an appropriate operating permit and antidegradation review public notice
- ☐ A construction permit and concurrent operating permit and antidegradation review public notice
- ☐ A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- ☐ An operating permit for a new or unpermitted facility — Construction Permit # _____
- ☑ An operating permit renewal: permit # MO- 0110086 — Expiration Date May 22, 2013
- ☐ An operating permit modification: permit # MO-_____ — Reason: _____

**1.1** Is the appropriate fee included with the application? (See instructions for appropriate fee) ☑ YES ☐ NO

**2. FACILITY**

| NAME | | TELEPHONE WITH AREA CODE | |
|---|---|---|---|
| Warco Manufacturing Company, Inc. | | (636) 433-2212 | |
| | | FAX (636) 433-5510 | |
| ADDRESS (PHYSICAL) | CITY | STATE | ZIP CODE |
| 1401 Highway D East | Marthasville | MO | 63357 |

**3. OWNER**

| NAME | E-MAIL ADDRESS | TELEPHONE WITH AREA CODE | |
|---|---|---|---|
| Warco Manufacturing Company, Inc. | | (636) 433-2212 | |
| | | FAX (636) 433-5510 | |
| ADDRESS (MAILING) | CITY | STATE | ZIP CODE |
| PO Box 48 | Marthasville | MO | 63357 |

3.1 Request review of draft permit prior to public notice? ☑ YES ☐ NO

**4. CONTINUING AUTHORITY**

| NAME | | TELEPHONE WITH AREA CODE | |
|---|---|---|---|
| Same as above | | | |
| | | FAX | |
| ADDRESS (MAILING) | CITY | STATE | ZIP CODE |
| same as above | | | |

**5. OPERATOR**

| NAME | CERTIFICATE NUMBER | TELEPHONE WITH AREA CODE | |
|---|---|---|---|
| | | | |
| | | FAX | |
| ADDRESS (MAILING) | CITY | STATE | ZIP CODE |
| | | | |

**6. FACILITY CONTACT**

| NAME | TITLE | TELEPHONE WITH AREA CODE |
|---|---|---|
| Dale Lohmeyer | President | (636) 433-2212 |
| | | FAX (636) 433-5510 |

**7. ADDITIONAL FACILITY INFORMATION**

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SE ¼ SW ¼ Sec 21 T 45N R 1W Warr County
UTM Coordinates Easting (X): _____ Northing (Y): _____
*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*

002 SE ¼ SW ¼ Sec 21 T 45N R 1W Warr County
UTM Coordinates Easting (X): _____ Northing (Y): _____

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

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

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 3629 and NAICS 335999 002 – SIC 3629 and NAICS 335999
003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

**8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION (Complete all forms that are applicable.)**

| | | | |
|---|---|---|---|
| A. | Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility?<br>If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below). | YES ☑ | NO ☐ |
| B. | Is your facility considered a "Primary Industry" under EPA guidelines:<br>If yes, complete Forms C and D. | YES ☐ | NO ☑ |
| C. | Is application for storm water discharges only?<br>If yes, complete EPA Form 2F. | YES ☐ | NO ☑ |
| D. | Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale. | | |
| E. | Is wastewater land applied? If yes, complete Form I. | YES ☐ | NO ☑ |
| F. | Is sludge, biosolids, ash or residuals generated, treated, stored or land applied?<br>If yes, complete Form R. | YES ☐ | NO ☑ |

**9. DOWNSTREAM LANDOWNER(S)** Attach additional sheets as necessary. See Instructions. (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

| NAME | | | |
|---|---|---|---|
| ADDRESS | CITY | STATE | ZIP CODE |
| | Marthasville | MO | 63357 |

**10.** I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

| NAME AND OFFICIAL TITLE (TYPE OR PRINT) | TELEPHONE WITH AREA CODE |
|---|---|
| Dale Lohmeyer, President | 636-433-2212 |
| SIGNATURE | DATE SIGNED |
| Dale Lohmeyer | 9-3-13 |

MO 780-1479 (01-09)

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

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- ☑ N/A Appropriate Fees?
- ☐ Map at 1" = 2000' scale?
- ☐ Signature?
- ☑ Form C, if applicable?
- ☐ Form D, if applicable?
- ☐ Form 2F, if applicable?
- ☐ Form I (Irrigation), if applicable?
- ☐ Form R (Sludge), if applicable?

RECEIVED

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

SEP - 6 2013

WATER PROTECTION PROGRAM

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

| FOR AGENCY USE ONLY | |
|---|---|
| CHECK NO. | |
| DATE RECEIVED | FEE SUBMITTED |

**NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS**

1.00 NAME OF FACILITY

Warco Manufacturing Company, Inc.

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO-0110086

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 3629 B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) SE 1/4 SW 1/4 SEC 21 T 45N R 1W Warren COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

| OUTFALL NUMBER (LIST) | RECEIVING WATER |
|---|---|
| 001 | Wet weather tributary to Tuque Creek (U) |

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Manufacturing of transformer components.

A. 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 flows between intakes, operations, treatment units, 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.

B. For each outfall, provide a description of 1. All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water and storm water runoff. 2. The average flow contributed by each operation. 3. The treatment received by the wastewater. Continue on additional sheets if necessary.

| 1. OUTFALL NO. | 2. OPERATION(S) CONTRIBUTING FLOW | | 3. TREATMENT | |
|---|---|---|---|---|
| (LIST) | A. OPERATION (LIST) | B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW) | A. DESCRIPTION | B. LIST CODES FROM TABLE A |
| 001 | Process water (no dom. waste) | 2200 gpd est. | Lagoon | |
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**2.40 CONTINUED**

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

☐ **YES** *(COMPLETE THE FOLLOWING TABLE)* ☑ **NO** *(GO TO SECTION 2.50)*

| 1. OUTFALL NUMBER *(list)* | 2. OPERATION(S) CONTRIBUTING FLOW *(list)* | 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. LONG TERM AVERAGE | 2. MAXIMUM DAILY | 4. LONG TERM DAILY | 3. MAXIMUM AVERAGE | |
| | | | | | | | | |

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

☐ **YES** *(COMPLETE B.)* ☑ **NO** *(GO TO SECTION 2.60)*

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

☐ **YES** *(COMPLETE c.)* ☑ **NO** *(GO TO SECTION 2.60)*

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS 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.

| 1. MAXIMUM QUANTITY | | | 2. AFFECTED OUTFALLS *(list outfall numbers)* |
|---|---|---|---|
| A. QUANTITY PER DAY | B. UNITS OF MEASURE | C. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)* | |
| | | | |

2.60 IMPROVEMENTS

A. ARE YOU NOW 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 THAT 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 3.00)*

| 1. IDENTIFICATION OF CONDITION AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE | |
|---|---|---|---|---|---|
| | | | | A. REQUIRED | B. PROJECTED |
| | | | | | |

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS *(OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES)* YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.**

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

| 1. POLLUTANT | 2. SOURCE | 1. POLLUTANT | 2. SOURCE |
|---|---|---|---|
| Butyl Acetate | Acrylic Laquer used in facility | | |
| Butylamine | Used in facility | | |
| Formaldehyde | Electrodag 213 used in facility | | |
| Xylene | Electrodag 213 used in facility | | |
| Zirconium | Englehard6690 stain used in fac | | |
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3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

☐ YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) ☑ NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☑ **YES** *(LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)* ☐ **NO** *(GO TO 3.30)*

| A. NAME | B. ADDRESS | C. TELEPHONE *(area code and number)* | D. POLLUTANTS ANALYZED *(list)* |
|---|---|---|---|
| ESA, Inc. | PO Box 278<br>Marthasville, MO 63357 | (636) 433-5231 | BOD, TSS, pH, Flow, Temp |
| Environmental Analysis South, Inc. | 4000 East Jackson Blvd.<br>Jackson, MO 63755 | (573) 204-8817 | Boron, Bromide, Fluoride, Oil & Grease, Radium 226, Radium 228, Alpha, Beta, Sulfites, Sulfate, Surfactants, Total Organic Carbon, Total Kjeldahl Nitrogen, Sulfides, Phosphorus, Aluminum, Barium, Cobalt, Iron, Magnesium, Manganese, Molybdenum, Tin, Titanium |

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

| NAME AND OFFICIAL TITLE (TYPE OR PRINT) | TELEPHONE NUMBER WITH AREA CODE |
|---|---|
| Dale Lohmeyer, President | (636) 433-2212 |
| SIGNATURE (SEE INSTRUCTIONS) | DATE SIGNED |
| Dale Lohmeyer | 9-3-13 |