

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, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0135950

Owner: GKN Aerospace North America, Inc.  
Address: 142 J. S. McDonnell Blvd., St. Louis, MO 63042

Continuing Authority: Same as above  
Address: Same as above

Facility Name: GKN Aerospace North America, Inc.  
Facility Address: 142 J. S. McDonnell Blvd., St. Louis, MO 63042

Legal Description: Land Grant 7, St. Louis County  
UTM Coordinates: X=729168, Y=4293531

Receiving Stream: Tributary to 8-20-13 MUDD V1.0  
First Classified Stream and ID: Tributary to Coldwater Creek (8-20-13 MUDD V 1.0)(C)(3960)  
USGS Basin & Sub-watershed No.: 10300200-0802

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

**FACILITY DESCRIPTION**

Outfall #001 - Aircraft Parts Manufacturing SIC #3728, NAICS #336411  
Stormwater only, process water and non-contact cooling water is discharged to Metropolitan St. Louis Sewer District (MSD)  
Estimated flow in a 10 year 24 hour rain event: 6.0 MGD  
Actual Flow: Dependent on precipitation

This permit authorizes only 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.

August 1, 2016  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

March 31, 2021  
Expiration Date

John Madras, Director, Water Protection Program

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)**

<b>OUTFALL #001</b> <i>Stormwater Only</i>	<b>TABLE A-1</b> <b>FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				
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 <b>August 1, 2016</b> , 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 DAILY MAXIMUM LIMIT	BENCH-MARKS	MONITORING REQUIREMENTS <sup>∞</sup>	
				MEASUREMENT FREQUENCY <sup>◇</sup>	SAMPLE TYPE
<b>PHYSICAL</b>					
Flow	MGD	*	-	once/quarter	24 hr. est.
Precipitation	inches	*	-	once/quarter***	24 hour total
<b>CONVENTIONAL</b>					
Chemical Oxygen Demand	mg/L	**	90	once/quarter	grab
Oil & Grease	mg/L	15	-	once/quarter	grab
pH <sup>Ω</sup>	SU	6.5 to 9.0	-	once/quarter	grab
Total Suspended Solids	mg/L	**	100	once/quarter	grab
<b>METALS</b>					
Total Hardness as CaCO <sub>3</sub>	mg/L	*	-	once/quarter	grab
Aluminum, Total Recoverable	µg/L	*	-	once/quarter	grab
Cadmium, Total Recoverable	µg/L	**	10	once/quarter	grab
Copper, Total Recoverable	µg/L	26	-	once/quarter	grab
Chromium (VI), Dissolved	µg/L	**	15	once/quarter	grab
Iron, Total Recoverable	µg/L	*	-	once/quarter	grab
Lead, 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 OCTOBER 28, 2016. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.					

\* Monitoring requirement only.

\*\* Monitoring requirement with associated benchmark. See Special Conditions #9 through #12

\*\*\* Measure during same precipitation event other samples are collected from. It is not necessary to measure precipitation every day in the quarter due to easily available information online.

∞ 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.

◇ Quarterly sampling

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

## 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 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.
2. All outfalls must be clearly marked in the field.
3. 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.
4. 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;

C. SPECIAL CONDITIONS, CONTINUED

- (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).
5. Report as no-discharge when a discharge does not occur during the report period.
6. 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) The permittee shall use one-half (½) of the detection limit for the non-detect result when calculating and reporting monthly averages.
  - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
8. 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.
9. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in 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.
10. The permittee shall implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented upon 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, if needed, every five (5) years or as site conditions change. 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 the following document: *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.

The SWPPP must include the following:

  - (a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
  - (b) 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. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. 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 personnel upon request.
  - (c) A provision for designating an individual to be responsible for environmental matters.
  - (d) 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.
11. 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

12. 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. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits or benchmarks.
  - (f) Ensure that 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.
13. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. On-site remediation may take place prior to testing. If the presence of hydrocarbons is indicated, this water must be tested for Total Petroleum Hydrocarbons (TPH). The analytical method for testing TPH must comply with EPA approved testing methods listed in 40 CFR 136 and the water must be tested prior to release to ensure compliance with water quality standards. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.
14. 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.
15. This permit does not authorize the discharge of non-contact cooling water or cooling tower overflow water. In the case of overflow, including, but not limited to, accidental or emergency overflow, the facility shall report the event as a spill to the St. Louis Regional Office within 24 hours by phone and five days by mail, and sample resulting effluent for all permitted parameters. The results shall be submitted to St. Louis Regional Office.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0135950**  
**GKN AEROSPACE NORTH AMERICAN, INC.**

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): 3728  
 Facility NAICS Code: 336411  
 Application Date: 05/21/2014  
 Expiration Date: 11/24/2014  
 Last Inspection: No previous inspection data is available for this facility

**FACILITY DESCRIPTION:**

This facility manufactures aircraft engines and parts. All process water and cooling water are discharged to the Metropolitan St. Louis Sewer District (MSD).

**PERMITTED FEATURES TABLE:**

OUTFALL	AVERAGE FLOW (MGD)	EST. FLOW IN A 10YR 24HR RAIN EVENT* (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	Dependent on Precipitation	6.0	BMPs	Industrial Stormwater

\*Calculated using the Rational Equation Method; acreage interpolated from map, rational runoff coefficient being 0.5, and rainfall intensity of 5.1 inches/day.

BMP = Best Management Practices

**FACILITY PERFORMANCE HISTORY & COMMENTS:**

The discharge monitoring reports were reviewed for the last five years. DMRs show numerous exceedances of permit parameters, specifically: COD, Copper, Oil and Grease, and Total Suspended Solids. Permittee also showed exceedances of water quality standards on Cadmium and Chromium VI, which were monitoring only parameters in the permit. GKN Aerospace passed all required WET tests in the last permit cycle. No previous inspection data is available for this facility

**FACILITY MAP:**



**Part II. RECEIVING STREAM INFORMATION**

**RECEIVING WATER BODY'S WATER QUALITY:**

The receiving stream Tributary to 8-20-13 MUDD V 1.0 has no concurrent water quality data available. The first classified water body, the Tributary to Coldwater Creek (C) (3960), is now classified whereas it was not classified in the previous permit, as EPA has approved the Department's new stream classifications. This stream is not on the 303d list. This facility is in the watershed of the Missouri River, which is under a TMDL for PCBs and Chlordane. As these pollutants have been banned, this facility is not expected to contribute to this 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:

Classes [10 CSR 20-7.031(1)(F)1. to 8.] of water bodies which may be found in the receiving streams table below are:

Lakes: L1 = drinking supply lakes; L2 = major reservoirs; L3 = other

Streams: P = permanent streams; P1 = standing water of P streams; C = may cease flow in droughts but maintains permanent pools; E = ephemeral; W = natural wetlands

- ✓ 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 1<sup>st</sup> classified receiving stream's beneficial water uses to be maintained are in the following receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the following receiving streams table:

- 10 CSR 20-7.031(1)(C)1.: Protection and propagation of fish, shellfish, and wildlife (formerly AQL; this permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat temperature designations unless otherwise specified)  
WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat
- 10 CSR 20-7.031(1)(C)2.: Recreation in and on the water  
WBC = Whole Body Contact; WBC-A = public swimming; WBC-B = 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 (fish consumption); IRR = irrigation;  
LWP (formerly LWW) = Livestock And Wildlife Protection; DWS = Drinking Water Supply;  
IND = industrial water supply
- 10 CSR 20-7.031(6): GRW = Groundwater

✓ As per Missouri's stormwater regulations [10 CSR 20.6.200(6)(B)2.] and federal regulations [40 CFR 122.26(b)(14)], the department shall establish limits necessary to protect waters of the state. Effluent limitations or benchmarks for stormwater are established using best professional judgment based on the category, impairments, technology available, and designated uses of the receiving stream.

**RECEIVING STREAMS TABLE:**

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC
#001	Tributary to 8-20-13 MUDD V 1.0	n/a	n/a	GEN	0.0 mi	10300200-0802
#001	Tributary to Coldwater Creek 8-20-13 MUDD V 1.0	C	3960	AQL, HHP, IRR, LWW, SCR, WBC-B, WWH	0.1 mi	Headwaters to Coldwater Creek

n/a = not applicable

WBID = Waterbody ID: 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](ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip)

**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)], or is an existing facility.

**ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] requires a reissued permit to be as stringent as the previous permit with some exceptions.

✓ Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
- ✓ COD limit was not reflective of this industry, or stormwater discharges. The new benchmark is based on an EPA approved, scientifically and statistically defensible method for maximum limit determinations. The copper limit in the previous permit was calculated using the wrong hardness or an outdated water quality standard. The new limit reflects recalculations based on hardness of 193mg/L for stormwater and current water quality standards.
- ✓ The previous permit limits for outfall #001 were established in error, based on limits for 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 are protective of the receiving stream's uses to be maintained.

**ANTIDegradation:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

✓ Renewal no degradation proposed and no further review necessary.

**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 is a technology-based threshold. 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 technology based effluent limitations (TBEL).

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 outfalls will 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 inspection of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on other stormwater permits including the Environmental Protection Agency's (EPA's) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP) or water quality standards. 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 SWPPs and is deemed protective of instream water quality and aquatic life.

**BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, 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 a 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 regarding biosolids and sludge is located at the following web address:

<http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

✓ Not applicable; this condition is not applicable to the permittee for this facility.

**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.

**INDUSTRIAL SLUDGE:**

Industrial sludge is solids, semi-solids, 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.

✓ Not applicable; this condition is not applicable to the permittee for this facility.

**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 that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that 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.

✓ Not applicable; an RPA was not conducted for this facility.

**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.

✓ Not applicable; no schedule of compliance is included in this permit.

**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)* 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 (regarding this operating permit) waters of the state. 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.

The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate pollution of stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged with 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 discussed in Part V above. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure that will assist in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit. Additional information can be found in 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].

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 that have been 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.

If failures continue to occur and the permittee feels there are no practicable or cost-effective BMPs that 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 each area and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

**303(d) LIST:**

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are 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 waters that are impaired but 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 will be developed that shall include the TMDL calculation. <http://dnr.mo.gov/env/wpp/tmdl/>

- ✓ Applicable; the Missouri River watershed is associated with the 2006 EPA Approved TMDL for PCBs and Chlordane
- ✓ This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of the Missouri River.

**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; this operating permit is not drafted under premises 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 release into a given stream after the department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

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

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad \text{(EPA/505/2-90-001, Section 4.5.5)}$$

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

- Acute wasteload allocations (daily maximum limits) 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).
- Water quality based maximum daily 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 that 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.

**WLA MODELING:**

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

✓ 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.

✓ Not applicable; at this time, the permittee is not required to conduct WET test for this facility. The previous permit required a WET test to be performed once a year. This facility passed all required WET tests in the last permit cycle. This facility has stormwater outfalls only. It is in the best professional judgment of the permit writer that WET tests are not valid measures of toxicity at stormwater outfalls. Stormwater events are variable and often fleeting; acute wet tests measure exposure of organisms over a 48 hour time period to a constant level of pollutants.

**Part IV. EFFLUENT LIMITS DETERMINATION**

**OUTFALL #001 – STORMWATER OUTFALL**

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. 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 #001	UNIT	BASIS	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>PHYSICAL</b>								
FLOW	MGD	1	*	-	ONCE/DAY	ONCE/QUARTER	ONCE/QUARTER	24 HR. EST.
PRECIPITATION	INCHES	6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
<b>CONVENTIONAL</b>								
COD	MG/L	6	**	90	45/30	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	MG/L	1, 3	15	-	15, 10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ‡	SU	1, 3	6.5 TO 9.0	-	6.0-9.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	MG/L	6	**	100	100/50	ONCE/QUARTER	ONCE/QUARTER	GRAB
<b>METALS</b>								
ALUMINUM, TOTAL RECOVERABLE	µg/L	6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CADMIUM, TOTAL RECOVERABLE	µg/L	2,9	**	10	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM, TOTAL RECOVERABLE	µg/L	2,6	**	15	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TOTAL RECOVERABLE	µg/L	2,6	26	-	17.1/8.5	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TOTAL RECOVERABLE	µg/L	6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TOTAL RECOVERABLE	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TOTAL RECOVERABLE	µg/L	6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

\* - Monitoring requirement only

\*\* - Monitoring with associated benchmark

‡ 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       | 5. Water Quality Model            | 9. Benchmark based on Missouri Water Quality Standards |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment     |  |
| 3. Water Quality Based Effluent Limits   | 7. TMDL or Permit in lieu of TMDL |  |
| 4. Antidegradation Review/Policy         | 8. Benchmark based on MSGP        |  |

## **DERIVATION AND DISCUSSION OF LIMITS:**

### **PHYSICAL:**

#### **Flow**

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to 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)**

Monitoring with a daily maximum benchmark of 90 mg/L. The previous permit had a maximum daily limit of 45 mg/L and a monthly average limit of 30 mg/L. It is in the permit writer's best professional judgment that these limits are not reflective of this facility's industrial process. There were multiple exceedances of this parameter in the last permit cycle. It is in the permit writer's best professional judgment to change these limits to be reflective of an industrial site. Other permits for industrial sites have benchmarks or limits set at 90 mg/L, and it has been shown to be reasonable and achievable by industry. 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.

#### **Oil & Grease**

Maximum daily limit of 15mg/L. This limit is continued from the last permit after re-evaluation. There was one exceedance of this parameter in the last permit cycle. Oil and Grease is a conventional pollutant, and in accordance with 10 CSR 20-7.031 Table A: *Criteria for Designated Uses* has a 10 mg/L monthly average (chronic standard) for the protection of aquatic life. This value is also considered to be protective of the general criteria found in 10 CSR 20 7.031 (4)(B). The daily maximum was calculated using the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001). Section 5.4.2 indicates the waste load allocation can be set to the chronic standard. When the chronic standard is multiplied by 1.5, the daily maximum can be calculated. Hence,  $10 * 1.5 = 15$  mg/L for the daily maximum.

#### **pH**

6.5 to 9.0 SU. Previous permit had limits of 6.0-9.0. It is in the best professional judgment of the permit writer that this facility can meet 6.5-9.0 consistently; therefore, a schedule of compliance will not be provided for this parameter. DMR data for the last permit cycle showed only one excursion from these limits, in December of 2010. 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. The receiving stream is a tributary therefore no assimilative capacity is available to buffer low pH values.

#### **Total Suspended Solids (TSS)**

Daily maximum limit of 100 mg/L. This is retained from the previous permit after re-evaluation. There were exceedances of this parameter in the last permit cycle; however, after review of the last five years of DMR data, it is in the permit writer's best professional judgment these limits are largely achievable by this facility, and there is no justification under anti-backsliding to raise these limits. Many of the excursions were due to exceeding the monthly average limit. There were only two occasions where the 100 mg/L daily maximum was exceeded, in September and December of 2012. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. It is in the best professional judgment 100 mg/L is protective of the Missouri general water quality criteria found at 10 CSR 20 7.031 (4) (D) that states "Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life". TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. 100mg/L as a benchmark is found in similar industrial permits, including the Missouri State General Permit for Fabricated Metal (MOR203), which covers SIC codes 37xx. This benchmark has been shown to be achievable by other similar industrial facilities.

**METALS:**

**Metals**

Effluent limitations for total recoverable metals were developed using methods and procedures outlined in the *Technical Support Document For Water Quality-based Toxic Controls* (EPA/505/2-90-001) and *The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion* (EPA 823-B-96-007). Benchmarks were developed using 10 CSR 20 7.031 Table A. General warm-water habitat criteria apply (WWH) designated as AQL in 10 CSR 20-7.031 Table A; and a water hardness of 193 for stormwater is used in the conversion below.

Due to the absence of contemporaneous effluent and instream data for total recoverable metals, dissolved metals, hardness, and total suspended solids with which to calculate metals translators, partitioning between the dissolved and absorbed phases was assumed to be minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, partitioning evaluations may be considered and site-specific translators developed.

METAL	CONVERSION FACTORS	
	ACUTE	CHRONIC
Aluminum	N/A	N/A
Cadmium	0.916	0.881
Chromium VI	N/A	N/A
Copper	0.960	0.960
Iron	N/A	N/A
Zinc	0.980	0.980

Conversion factors for Cd and Pb are hardness dependent. N/A = not applicable.  
Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 193 mg/L.

**Hardness as CaCO3**

Monitoring only. This is continued from the previous permit after re-evaluation. This parameter is necessary to determine site-specific hardness for certain metals that have toxicity influenced by water hardness.

**Aluminum, Total Recoverable**

Monitoring only. This is a new parameter for this permit. Aluminum was reported as “believed present” on the application for renewal. The results showed aluminum was found in the effluent, but not in levels above water quality standards. Aluminum is also found on the general permit for this industry, MOR203xxx, and is a pollutant of concern for this SIC code. Monitoring will be conducted for this permit cycle to determine this facility’s potential to exceed water quality standards.

**Cadmium, Total Recoverable**

Monitoring with a 10µg/L daily maximum benchmark. The previous permit required monitoring only for this parameter; however, DMRs from the previous permit cycle shows one exceedance of the water quality standards for this parameter. It is in the best professional judgment of the permit writer to set a benchmark for this parameter to protect aquatic life under the general criteria found at 10 CSR 20 7.031 (4)(D).

Acute AQL WQS:  $e^{(1.0166 * \ln 193 - 3.062490)} * (1.136672 - \ln 193 * 0.041838) = 9.012$  [at Hardness 193]  
 Acute TR WQS:  $9.012 \div 0.9165 = 9.8332$  [Total Recoverable Conversion]  
 Acute WLA:  $C_c = 9.8332$  [WLA=WQS when no mixing]  
 Benchmark:  $9.8 \mu\text{g/L} = 10 \mu\text{g/L}$

**Copper, Total Recoverable**

Daily maximum limit of 26 µg/L. Previous permit had a maximum daily limit of 17.1µg/L and an average monthly limit of 8.5 µg/L. These limits do not appear to be based on current water quality standards, or were calculated at an incorrect water hardness. These limits and have been recalculated to reflect current water quality criteria at a hardness of 193 mg/L. Average monthly limits will not be applied in this permit due to the intermittent nature of stormwater events and flows. There were multiple exceedances of the previous permit limits; however, after adjusting to the new limit, there were three exceedances of the water quality standards, with the most recent being in March of 2014. It is in the best professional judgment of the permit writer to apply a limit of 26 µg/L to protect aquatic life under the general criteria found at 10 CSR 20 7.031 (4)(D) using the aquatic life protection criteria found in 10 CSR 20 7.031 Table A.

Acute AQL WQS:  $e^{(0.9422 * \ln 193 - 1.7003)} * 0.960 = 24.96275$  [at Hardness 193]  
 Acute TR WQS:  $24.96275 \div 0.96 =$  Acute WLA = 26.002 [Total Recoverable Conversion]  
 LTA<sub>a</sub>:  $26.002 (0.321) = 8.347$  [CV = 0.6, 99<sup>th</sup> Percentile]  
 MDL:  $8.347 (3.11) = 25.95 = 26 \mu\text{g/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]

### **Chromium VI, Dissolved**

Monitoring with a daily maximum benchmark of 15 µg/L. The previous permit required monitoring only for this parameter; however, the DMR data showed multiple exceedances of the water quality standards over the last five years. Chromium VI is an industrial pollutant possessing mutagenic and teratogenic properties and is a known bio-accumulative toxin in aquatic habitats, causing a variety of adverse effects in fish. It is in the best professional judgment of the permit writer to apply a benchmark of 15 µg/L to protect aquatic life under the general criteria found at 10 CSR 20 7.031 (4)(D) using the aquatic life protection criteria found in 10 CSR 20 7.031 Table A.

Acute AQL WQS:	15	[at Hardness 193]
Chronic AQL WQS:	10	[at hardness 193]
Acute WLA:	$C_e = 15$	[WLA=WQS when no mixing]
Chronic WLA:	$C_e = 10$	[WLA=WQS when no mixing]
LTA <sub>a</sub> :	$15 (0.321) = 4.815$	[CV = 0.6, 99 <sup>th</sup> Percentile]
LTA <sub>c</sub> :	$10 (0.527) = 5.27$	[CV = 0.6, 99 <sup>th</sup> Percentile]
Use most protective number of LTA <sub>a</sub> or LTA <sub>c</sub> .		
MDL:	$4.815 (3.11) = 14.974 = 15 \mu\text{g/L}$	[CV = 0.6, 99 <sup>th</sup> Percentile]

### **Iron, Total Recoverable**

Monitoring only. This is a new parameter for this permit. The submitted application describes Iron as “believed present”, and the accompanying effluent data indicates the presence of iron (241 µg/L). This level of iron is lower than the state water quality standards for this pollutant; however, as this is a known pollutant of concern for industries with this SIC code, and it is a parameter found on the Missouri general permit MOR203XXX, and this is a single data point, it is in the permit writer’s best professional judgment to require monitoring on this parameter to ensure no exceedances of water quality standards.

### **Lead, Total Recoverable**

Monitoring only. This parameter is continued from the previous permit after reconsideration. DMR data shows no exceedances of this parameter; however, it is detected in the effluent in non-negligible amounts (maximum detected value: 50µg/L), and therefore monitoring will be continued to ensure water quality standards are not exceeded.

### **Zinc, Total Recoverable**

Monitoring only. This is a new parameter for this permit. This is a parameter found on the general permit covering SIC codes 37xx. It is a known pollutant of concern with this type of industrial process. It is a parameter found on other similar industrial permits. It is in the best professional judgment of the permit writer to add monitoring for this parameter to determine this facility’s potential to exceed water quality standards.

## **Part V. SAMPLING AND REPORTING REQUIREMENTS:**

### **ELECTRONIC DISCHARGE MONITORING REPORTING:**

Due to recently enacted 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 and reporting frequency was generally retained from 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.

### **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 VI. 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 end of 1st quarter, 2021.*

### **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 February 26, 2016 through March 28, 2016. No responses were received.

**DATE OF FACT SHEET:** 12/28/2015, 07/05/2016

Minor change to permit made 07/05/2016 by the permit writer. A typo error in Table A-1 of the permit was modified. The change does not affect limits or any other portion of the permit, public notice is not required for this change.

### **COMPLETED BY:**

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST  
MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
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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.



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- 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 28<sup>th</sup> day of the month following the end of the reporting period.
- 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 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.

## 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



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- 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.



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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.



**GKN Aerospace -  
St. Louis**  
142 J S McDonnell Blvd  
Hazelwood, MO 63042  
USA  
(314) 264-3000  
(314) 264-3010

May 21, 2014

MAY 21 2014

**CERTIFIED MAIL NO. 9171 9690 0935 0043 6211 84**  
**RETURN RECEIPT REQUESTED**

Missouri Department of Natural Resources  
Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176

**Subject: GKN Permit No. MO 0135950**

Please find enclosed the permit application for renewal of permit MO 0135950.  
Included are Forms A, C and D.

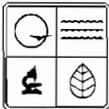
Please feel free to contact me at (314) 264-3665 should you have any questions or  
require additional information regarding the enclosed information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey Klunk', written over a horizontal line.

Jeffrey Klunk  
Environmental Engineer  
GKN Aerospace North America, Inc. - Hazelwood, MO

enclosure



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	FEE SUBMITTED
5/21/14	ESB

**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- 0135950 Expiration Date 11/24/2014
- 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	
GKN Aerospace North America, Inc.		(314) 264-3665	
FAX (314) 264-3669			
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
142 J. S. McDonnell Blvd.	St. Louis	MO	63042

**3. OWNER**

NAME		E-MAIL ADDRESS		TELEPHONE WITH AREA CODE	
GKN Aerospace North America, Inc.				(314) 264-3665	
FAX (314) 264-3669					
ADDRESS (MAILING)	CITY	STATE	ZIP CODE		
142 J. S. McDonnell Blvd.	St. Louis	MO	63042		

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

**4. CONTINUING AUTHORITY**

NAME		TELEPHONE WITH AREA CODE	
Same as owner		(314) 264-3665	
FAX (314) 264-3669			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

**5. OPERATOR**

NAME		CERTIFICATE NUMBER		TELEPHONE WITH AREA CODE	
Same as owner				(314) 264-3665	
FAX (314) 264-3669					
ADDRESS (MAILING)	CITY	STATE	ZIP CODE		

**6. FACILITY CONTACT**

NAME		TITLE		TELEPHONE WITH AREA CODE	
Jeffrey Klunk		Environmental Engineer		(314) 264-3665	
FAX (314) 264-3669					

**7. ADDITIONAL FACILITY INFORMATION**

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

001 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec 5 T 46N R R6E St. Lo County  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_  
*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*

002 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ \_\_\_\_\_ County  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

003 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ \_\_\_\_\_ County  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

004 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 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 3728 and NAICS 336411 002 – SIC \_\_\_\_\_ and NAICS \_\_\_\_\_  
 003 – SIC \_\_\_\_\_ and NAICS \_\_\_\_\_ 004 – SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

SL  
 5/21/14

**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? YES  NO   
 If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).
- B. Is your facility considered a "Primary Industry" under EPA guidelines: YES  NO   
 If yes, complete Forms C and D.
- C. Is application for storm water discharges only? YES  NO   
 If yes, complete EPA Form 2F.
- 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? YES  NO   
 If yes, complete Form R.

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

NAME Crown Packaging Corporation			
ADDRESS 123 James S. McDonnell Blvd.	CITY Hazelwood	STATE MO	ZIP CODE 63042

**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) Michael Niemann, Director Engineering	TELEPHONE WITH AREA CODE (314) 264-3562
SIGNATURE 	DATE SIGNED 5-21-14

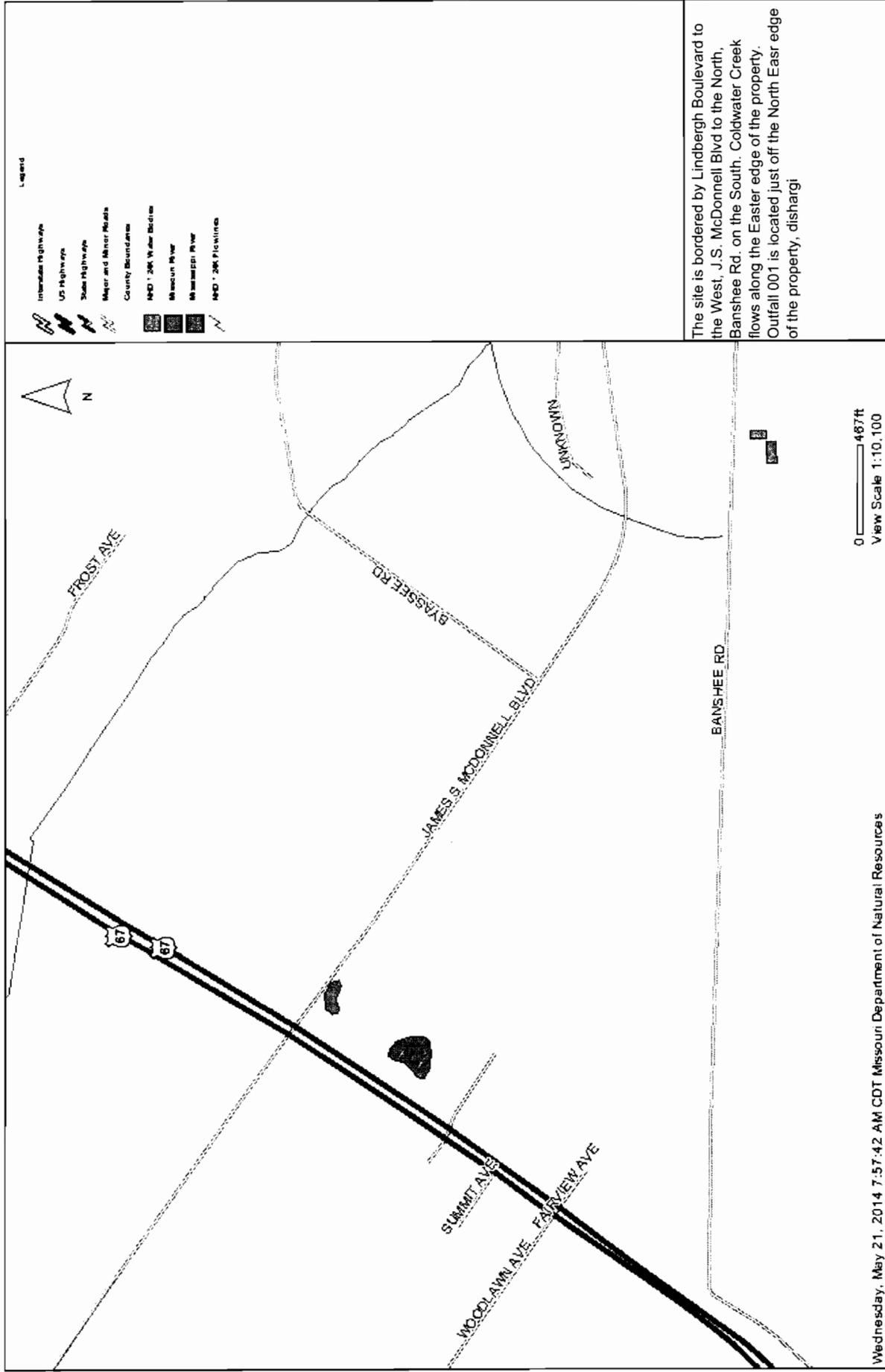
MO 780-1479 (01-09)

**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:

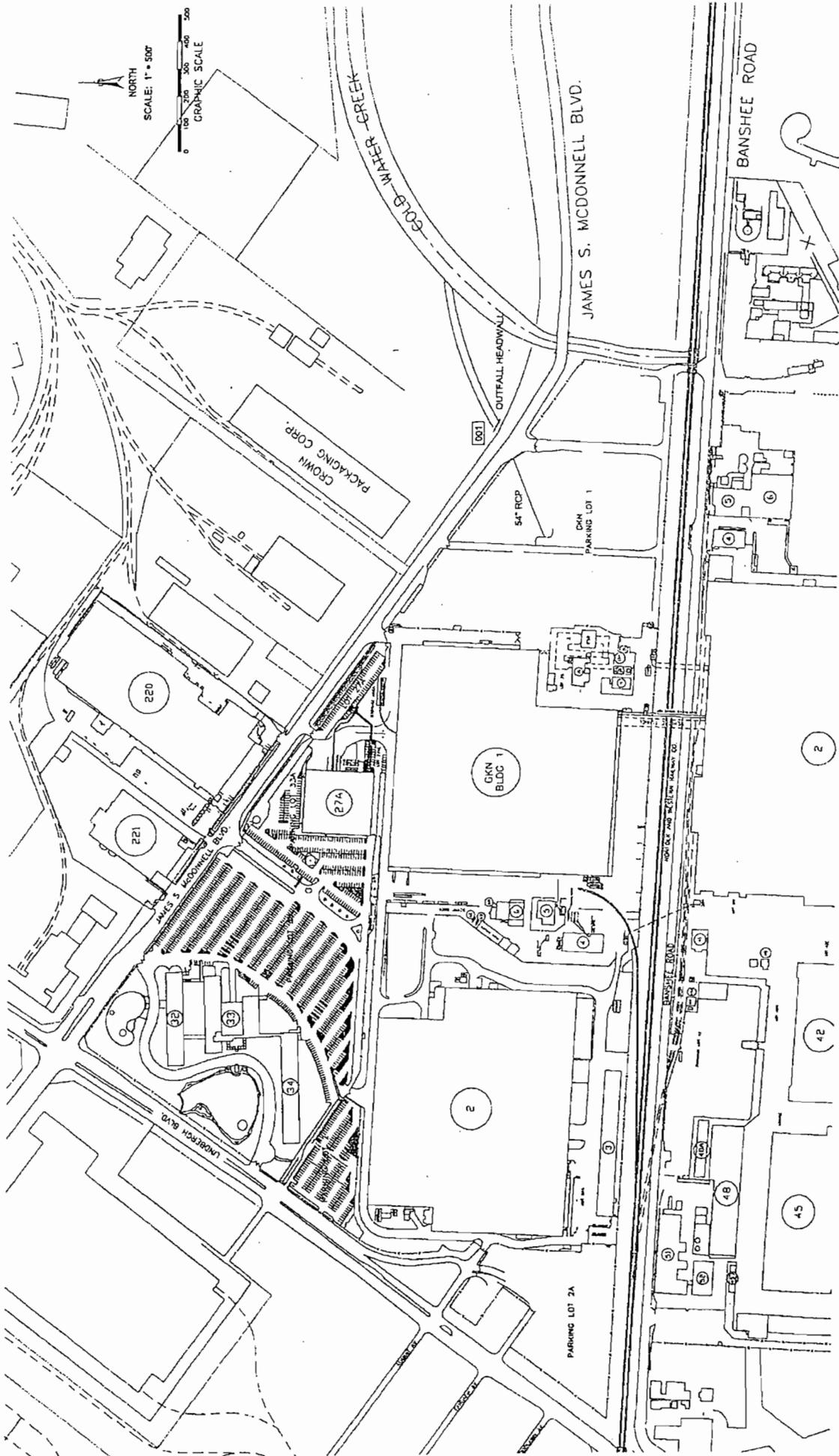
- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?

# GKN Aerospace North America, Inc.

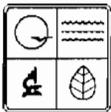


**Missouri Department of Natural Resources**

This timestamp indicates the date and time the map was generated. Data layers in the map are updated at a variety of intervals and may not reflect current conditions. Disclaimer: Although this map has been compiled by the Missouri Department of Natural Resources, no warranty, expressed or implied, is made by the department as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the department in the use of these data or related materials.



GKN AEROSPACE SERVICES, INC.  
 (Bldgs. 1, 2, and 3 and Outfall 001)  
 Map for Form A, Section 8-0, Part D.



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

GKN Aerospace North America, Inc.

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

MO-0135950

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 3728 B. SECOND \_\_\_\_\_  
 C. THIRD \_\_\_\_\_ D. FOURTH \_\_\_\_\_

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION

OUTFALL NUMBER (LIST) \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 SEC 5 T 46N R 6E St. Louis COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST) 001 RECEIVING WATER Coldwater Creek - Missouri River Basin

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Aircraft Parts Manufacturing and Equipment



**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 <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	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 <i>(list outfall numbers)</i>
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i>	

**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.



3.10 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)

Whole effluent toxicity testing was performed on samples at outfall 001 in October 2013.

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)
AECOM Environment (subcontracted through Teklab, Inc.)	4303 West LaPorte Avenue, Fort Collins, Colorado, 80521-2154	(970) 416-0916	WET Testing only

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)

Michael Niemann, Director Engineering

TELEPHONE NUMBER WITH AREA CODE

(314) 264-3562

SIGNATURE (SEE INSTRUCTIONS)



DATE SIGNED

5-21-14

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet (Use the same format) instead of completing these pages.  
SEE INSTRUCTIONS

FORM C  
TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.  
001

INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
A. Biochemical Oxygen Demand (BOD)	<5	<10.84					mg/L	lbs		
B. Chemical Oxygen Demand (COD)	82	177.81			47	80.11	mg/L	lbs		
C. Total organic Carbon (TOC)	2.3	4.99					mg/L	lbs		
D. Total Suspended Solids (TSS)	26	56.38			12.75	21.73	mg/L	lbs		
E. Ammonia (as N)	0.26	0.56					mg/L	lbs		
F. Flow	VALUE 0.26		VALUE		VALUE 0.20		mgd		VALUE	
G. Temperature (winter)	VALUE 8.5		VALUE				°C		VALUE	
H. Temperature (summer)	VALUE 17.4		VALUE				°C		VALUE	
I. pH	MINIMUM 6.79	MAXIMUM 7.78	MINIMUM	MAXIMUM			STANDARD UNITS			

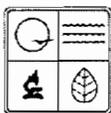
PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				6. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION		B. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION		C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
			(2) MASS	(3) MASS	(2) MASS	(3) MASS	(2) MASS	(3) MASS					
A. Bromide (24959-67-9)		X											
B. Chlorine, Total Residual	X		0.02	0.04					1	mg/L	lbs		
C. Color	X		25	54.21					1	mg/L	lbs		
D. Fecal Coliform		X											
E. Fluoride (16984-48-6)	X		0.31	0.67					1	mg/L	lbs		
F. Nitrate - Nitrate (as N)	X		1.2	2.60					1	mg/L	lbs		

CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic (as N)		X											
H. Oil and Grease	X		7.0	15.18		6.0	10.23		mg/L	lbs			
I. Phosphorus (as P), Total (7723-14-0)		X											
J. Sulfate (as SO <sub>4</sub> ) (14808-79-8)		X											
K. Sulfide (as S)		X											
L. Sulfite (as SO <sub>3</sub> ) (14255-45-3)		X											
M. Surfactants		X											
N. Aluminum, Total (7429-90-5)	X		0.0941	0.20					mg/L	lbs	1		
O. Barium, Total (7440-39-3)	X		0.0827	0.18					mg/L	lbs	1		
P. Boron, Total (7440-42-8)	X		0.11	0.24					mg/L	lbs	1		
Q. Cobalt, Total (7440-48-4)		X											
R. Iron, Total (7439-89-6)	X		0.241	0.52					mg/L	lbs	1		
S. Magnesium, Total (7439-95-4)	X		20.7	44.89					mg/L	lbs	1		
T. Molybdenum, Total (7439-98-7)		X											
U. Manganese, Total (7439-96-5)	X		0.0516	0.11					mg/L	lbs	1		
V. Tin, Total (7440-31-5)		X											
W. Titanium, Total (7440-32-6)	X		0.0046	0.01					mg/L	lbs	1		

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
<b>METALS, AND TOTAL PHENOLS</b>														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)	X		0.002	0.004		0.002	0.003	0.002	4	mg/L	lbs			
5M. Chromium III (16065-83-1)	X		0.018	0.04					1	mg/L	lbs			
6M. Chromium VI (18540-29-9)	X		0.21	0.46			0.11	0.11	4	mg/L	lbs			
7M. Copper, Total (7440-50-8)	X		32.9	71.34			16.58	16.58	4	mg/L	lbs			
8M. Lead, Total (7439-92-1)	X		0.04	0.09			0.031	0.031	4	mg/L	lbs			
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
<b>RADIOACTIVITY</b>														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												



MISSOURI DEPARTMENT OF NATURAL RESOURCES MAY 27 2010  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
**FORM D – APPLICATION FOR DISCHARGE PERMIT –  
 PRIMARY INDUSTRIES**

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

GKN Aerospace North America, Inc.

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

**MO - 0135950**

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

**INDUSTRY CATEGORY**

- |                                   |   |
|-----------------------------------|---|
| Adhesives and sealants            | Ore mining                                    |
| Aluminum forming                  | Organic chemicals manufacturing               |
| Auto and other laundries          | Paint and ink formulation                     |
| Battery manufacturing             | Pesticides                                    |
| Coal mining                       | Petroleum refining                            |
| Coil coating                      | Pharmaceutical preparations                   |
| Copper forming                    | Photographic equipment and supplies           |
| Electric and electronic compounds | Plastic and synthetic materials manufacturing |
| Electroplating                    | Plastic processing                            |
| Explosives manufacturing          | Porcelain enameling                           |
| Foundries                         | Printing and publishing                       |
| Gum and wood chemicals            | Pulp and paperboard mills                     |
| Inorganic chemicals manufacturing | Rubber processing                             |
| Iron and steel manufacturing      | Soap and detergent manufacturing              |
| Leather tanning and finishing     | Steam electric power plants                   |
| Landfill                          | Textile mills                                 |
| Mechanical products manufacturing | Timber products processing                    |
| Nonferrous metals manufacturing   |   |

**APPLICATION FOR DISCHARGE PERMIT  
FORM D – PRIMARY INDUSTRIES**

**TABLE II**

NPDES # (IF ASSIGNED) 0135950	OUTFALL NUMBER 001
----------------------------------	-----------------------

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		6. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVE PRESENT	C. BELIEVE ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)	D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
<b>METALS, AND TOTAL PHENOLS</b>											
1M. Antimony, Total (7440-36-9)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
2M. Arsenic, Total (7440-38-2)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
3M. Beryllium, Total (7440-41-7)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
4M. Cadmium, Total (7440-43-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.002	0.004		0.002	0.003	4	mg/L	lbs
5M. Chromium III (18065-83-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.018	0.04				1	mg/L	lbs
6M. Chromium VI (18540-29-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.21	0.46		0.11	0.18	4	mg/L	lbs
7M. Copper, Total (7440-50-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.033	0.07		0.066	0.11	4	mg/L	lbs
8M. Lead, Total (7439-92-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.04	0.09		0.031	0.05	4	mg/L	lbs
9M. Magnesium Total (7439-95-4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
10M. Mercury, Total (7439-97-6)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
11M. Molybdenum Total (7439-98-7)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
12M. Nickel, Total (7440-02-0)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
13M. Selenium, Total (7782-49-2)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
14M. Silver, Total (7440-22-4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
15M. Thallium, Total (7440-28-0)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
16M. Tin Total (7440-31-5)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
17M. Titanium Total (7440-32-6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.0046	0.01				1	mg/L	lbs
18M. Zinc, Total (7440-66-6)		<input type="checkbox"/>	<input checked="" type="checkbox"/>								

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
20M. Phenols, Total		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
DIOXIN																				
DESCRIBE RESULTS																				
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"				3. EFFLUENT				4. UNITS				5. INTAKE (optional)							
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT		A. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	B. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO OF ANALYSES				
<b>GC/MS FRACTION – VOLATILE COMPOUNDS</b>																				
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
14V. 1,1 – Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
15V. 1,2 – Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
16V. 1,1 – Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
17V. 1,3 – Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
18V. 1,2 – Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																	

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE (1)	B. MASS CONCENTRATION (2)	A. LONG TERM AVRG. VALUE (1)	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
<b>GC/MS FRACTION – VOLATILE COMPOUNDS (continued)</b>														
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
27V. 1,1,1 – Tri – chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
28V. 1,1,2 – Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

**GC/MS FRACTION – ACID COMPOUNDS**

1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
3A. 2,4 – Dimethyl – phenol (105-67-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>															
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5B. Benzo (a)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6B. Benzo (a)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
20B. 1,2 - Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
21B. 1,3 - Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

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NPDES # (IF ASSIGNED)  
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OUTFALL NUMBER  
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		6. INTAKE (optional)					
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. MASS (2) MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
<b>GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)</b>														
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
29B. Di-N-Octylphthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		6. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>															
42B. N-Nitroso N-Propylamine (621-64-7)			✓												
43B. N-Nitrosodiphenylamine (86-30-6)			✓												
44B. Phenanthrene (85-01-8)			✓												
45B. Pyrene (129-00-0)			✓												
46B. 1,2,4-Tri chlorobenzene (120-82-1)			✓												
<b>GC/MS FRACTION - PESTICIDES</b>															
1P. Aldrin (309-00-2)			✓												
2P. α-BHC (319-84-6)			✓												
3P. β-BHC (319-84-6)			✓												
4P. γ-BHC (58-89-9)			✓												
5P. δ-BHC (319-86-8)			✓												
6P. Chlordane (57-74-9)			✓												
7P. 4,4'-DDT (50-29-3)			✓												
8P. 4,4'-DDE (72-55-9)			✓												
9P. 4,4'-DDD (72-54-8)			✓												
10P. Dieldrin (60-57-1)			✓												
11P. α-Endosulfan (115-29-7)			✓												
12P. β-Endosulfan (115-29-7)			✓												
13P. Endosulfan Sulfate (1031-07-8)			✓												
14P. Endrin (72-20-8)			✓												
15P. Endrin Aldehyde (7421-93-4)			✓												
16P. Heptachlor (76-44-8)			✓												

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NPDES # (IF ASSIGNED)

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OUTFALL NUMBER

001

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
<b>GCMS FRACTION - PESTICIDES (continued)</b>												
17P. Heptachlor Epoxide (1024-57-3)			<input checked="" type="checkbox"/>									
18P. PCB-1242 (53469-21-9)			<input checked="" type="checkbox"/>									
19P. PBC-1254 (11097-69-1)			<input checked="" type="checkbox"/>									
20P. PCB-1221 (11104-28-2)			<input checked="" type="checkbox"/>									
21P. PCB-1232 (11141-16-5)			<input checked="" type="checkbox"/>									
22P. PCB-1248 (12672-29-6)			<input checked="" type="checkbox"/>									
23P. PCB-1260 (11096-62-5)			<input checked="" type="checkbox"/>									
24P. PCB-1016 (12674-11-2)			<input checked="" type="checkbox"/>									
25P. Toxaphene (8001-35-2)			<input checked="" type="checkbox"/>									
<b>J. RADIOACTIVITY</b>												
(1) Alpha Total			<input checked="" type="checkbox"/>									
(2) Beta Total			<input checked="" type="checkbox"/>									
(3) Radium Total			<input checked="" type="checkbox"/>									
(4) Radium 226 Total			<input checked="" type="checkbox"/>									

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS  
 A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?  
 YES (LIST ALL SUCH POLLUTANTS BELOW)  NO (GO TO B)

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?  
 YES (COMPLETE C BELOW)  NO (GO TO SECTION 3.00)

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION  
 WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?  
 YES (LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)  
 NO (GO TO SECTION 4.00)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Teklab	5445 Horseshoe Lake Road Collinsville, IL 62234	(618) 344-1004	Cr, Cu, Pb, Ti
PDC Laboratories, Inc.	3278 N. Highway 67 Florissant, MO 63033	(314) 432-0550	Cu, Pb

4.00 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) Michael Niemann, Director Engineering	PHONE NUMBER (AREA CODE AND NUMBER) (314) 264-3562
SIGNATURE 	DATE SIGNED 5-21-14