

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

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

Permit No. MO-0127345

Owner: IESI MO Corporation
Address: 2301 Eagle Parkway, Suite 200, Fort Worth, TX 76177

Continuing Authority: Same as above
Address: Same as above

Facility Name: IESI Timber Ridge Landfill
Facility Address: 12851 State Highway H, Richwoods, MO 63071

Legal Description: See page 2
UTM Coordinates: See page 2

Receiving Stream: See page 2
First Classified Stream and ID: See page 2
USGS Basin & Sub-watershed No.: See page 2

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

FACILITY DESCRIPTION

See page 2

Leachate cannot be discharged. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which has come into contact with leachate, must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations, and Sanitary Landfill Operating Permit; and Hazardous Waste Program (if applicable).

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.

July 1, 2016

Effective Date



Sara Parker Pauley, Director, Department of Natural Resources

December 31, 2017

Expiration Date



John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL #001 – Industrial Stormwater; SIC # 4953; NAICS # 562212

Discharges from a stormwater detention basin that receives stormwater runoff from the active landfill.

Legal Description: NW¼, SE¼, Land grant 3022, Washington County
UTM Coordinates: X=695238, Y=4227697
Receiving Stream: Tributary to Turkey Creek
First Classified Stream and ID: Turkey Creek (C) 2078
USGS Basin & Sub-watershed No.: Ditch Creek-Big River (07140104-0403)
Est. acres contributing: 54 acres
Est. flow in 10 year, 24 hour storm event: 7.6 MGD
Actual Flow: Dependent on precipitation

OUTFALL #02 – Industrial Stormwater – SIC # 4231 NAICS # 811191

Discharges from an onsite stormwater detention basin that receives stormwater runoff from motor freight vehicle parking and container storage of empty roll-off boxes and dumpsters.

Legal Description: NW¼, SE¼, Land grant 3022, Washington County
UTM Coordinates: X=695828, Y= 4227085
Receiving Stream: Tributary to Turkey Creek
First Classified Stream and ID: Turkey Creek (C) 2078
USGS Basin & Sub-watershed No.: Ditch Creek-Big River (07140104-0403)
Est. acres contributing: 33 acres
Est. Flow in 10 year, 24 hour storm event: 4.6 MGD
Actual flow: Dependent on precipitation

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001 <i>Industrial Stormwater</i>	TABLE A-1 FINAL EFFLUENT LIMITATIONS, BENCHMARKS, AND MONITORING REQUIREMENTS				
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on July 1, 2016 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:				
EFFLUENT PARAMETERS	UNITS	DAILY MAXIMUM	BENCHMARKS	MONITORING REQUIREMENTS	
				MEASUREMENT FREQUENCY [∞]	SAMPLE TYPE
PHYSICAL					
Flow	MGD	*	-	once/quarter	24 hr. total estimate measured
Precipitation	Inches	*	-	once/quarter±	
CONVENTIONAL					
Chemical Oxygen Demand	mg/L	90	-	once/quarter	grab
Oil & Grease	mg/L	**	10	once/quarter	grab
pH (Note 1)	SU	6.5 to 9.0	-	once/quarter	grab
Settleable Solids	mL/L/hr	**	1.5	once/quarter	grab
Total Suspended Solids	mg/L	80	-	once/quarter	grab
METALS					
Total Hardness as CaCO ₃	mg/L	*	-	once/quarter	grab
Aluminum, Total Recoverable	µg/L	*	-	once/quarter	grab
Copper, Total Recoverable	µg/L	**	26	once/quarter	grab
Iron, Total Recoverable	µg/L	**	4000	once/quarter	grab
Thallium, Total Recoverable	µg/L	*	-	once/quarter	grab
Zinc, Total Recoverable	µg/L	*	-	once/quarter	grab
OTHER					
Fluoride	mg/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.

(See notes on page 5)

OUTFALL #002 Industrial Stormwater	TABLE A-2 FINAL EFFLUENT LIMITATIONS, BENCHMARKS, AND MONITORING REQUIREMENTS				
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on July 1, 2016 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:				
EFFLUENT PARAMETERS	UNITS	DAILY MAXIMUM	BENCHMARKS	MONITORING REQUIREMENTS	
				MEASUREMENT FREQUENCY ^o	SAMPLE TYPE
PHYSICAL					
Flow	MGD	*	-	once/quarter	24 hr. total estimate measured
Precipitation	Inches	*	-	once/quarter±	
CONVENTIONAL					
Chemical Oxygen Demand	mg/L	**	90	once/quarter	grab
Oil & Grease	mg/L	**	10	once/quarter	grab
pH ^o	SU	6.5 to 9.0	-	once/quarter	grab
Settleable Solids	mL/L/hr	**	1.5	once/quarter	grab
Total Suspended Solids	mg/L	**	80	once/quarter	grab
METALS					
Total Hardness as CaCO ₃	mg/L	*	-	once/quarter	grab
Aluminum, Total Recoverable	µg/L	*	-	once/quarter	grab
Copper, Total Recoverable	µg/L	*	-	once/quarter	grab
Iron, Total Recoverable	µg/L	**	4000	once/quarter	grab
Thallium, Total Recoverable	µg/L	*	-	once/quarter	grab
Zinc, Total Recoverable	µg/L	*	-	once/quarter	grab
TOTAL PETROLEUM HYDROCARBONS					
Diesel Range Organics (TPH-DRO)	mg/L	**	10	once/quarter	grab
Gasoline Range Organics (TPH-GRO)	mg/L	**	10	once/quarter	grab
Oil Range Organics (TPH-ORO)	mg/L	**	10	once/quarter	grab
OTHER					
Fluoride	mg/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.

(See notes on page 5)

- * Monitoring requirement only.
- ** This parameter incorporates a Benchmark Value associated with Best Management Practices (BMPs). See Special Condition #11 for further information.
- ∞ 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.
- ± Precipitation will be reported for the same day other samples are taken. Precipitation data is readily obtainable online, therefore daily sampling is unnecessary.
- Ω The facility will report the minimum and maximum values. pH is not to be averaged.

Quarterly sampling Table

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

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;

C. SPECIAL CONDITIONS (CONTINUED)

- (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. 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.
 - (c) 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:
 - (9) 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;
 - (10) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (11) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (12) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (13) There shall be no significant human health hazard from incidental contact with the water;
 - (14) There shall be no acute toxicity to livestock or wildlife watering;
 - (15) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (16) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
5. 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:

C. SPECIAL CONDITIONS (CONTINUED)

- (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.
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. Stormwater ponds shall be monitored to assure they are not nearing capacity. If it is determined that a stormwater pond is nearing capacity, it shall be drained using the gate valve to a level so as to prevent overflow in subsequent rain events. If a controlled discharge of this variety occurs, a sample shall be taken including all parameters required in the regular quarterly sampling, and the analytical results shall be submitted to the Missouri Department of Natural Resources Southeast Regional Office. These samples are in addition to the regularly scheduled quarterly sample that is obtained from rainfall events.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0127345
IESI TIMBER RIDGE LANDFILL**

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): 4953,4231
 Facility NAICS Codes: 562212, 811191
 Application Date: 03/29/2013
 Expiration Date: 10/30/2013
 Last Inspection: 03/15/2013 In Compliance

FACILITY DESCRIPTION:

Timber Ridge is a 271 acre solid waste landfill. The area of actual disposal is 80 acres. There is one no discharge leachate pond on the site. The landfill receives domestic solid waste and citizen drop off recycling. The operator uses the stormwater pond to supply water used for dust prevention on haul roads. The facility employed an experimental intermediate cover of artificial turf starting in 2010. This cover was accepted as an alternative intermediate cover in September 2014.

EFFLUENT LIMITATION GUIDELINE 40 CFR PART 445 LANDFILL POINT SOURCE CATEGORY

The EPA has developed effluent limitation guidelines for wastewater discharges associated with the operation and maintenance of landfills regulated under RCRA Subtitle D, non-hazardous waste landfills. The wastewater flows which are covered by the rule include leachate, gas collection condensate, drained free liquids, laboratory-derived wastewater, contaminated stormwater and contact wash water from truck exteriors and surface areas which have come into direct contact with solid waste at the landfill facility. Drained free liquids are aqueous wastes drained from waste containers or wastewater resulting from waste stabilization prior to landfilling. Contaminated groundwater that is treated and discharged is excluded from this guideline. This permit does not authorize the discharge of any waters covered under this ELG to waters of the State of Missouri or waters of the United States.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW (MGD)	DESIGN FLOW (MGD, EST.)	TREATMENT LEVEL	EFFLUENT TYPE
#001	dependent on precipitation	7.6	BMPs, Primary (sedimentation)	Industrial Stormwater
#002	dependent on precipitation	4.6	BMPs, Primary (sedimentation)	Industrial Stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:

The electronic discharge monitoring reports were reviewed for the last five years. There were two exceedances of COD, one exceedance of iron (which would not be considered an exceedance under the benchmark in this permit), and one exceedance of TSS, all at outfall #001. Past inspections have found the facility to be in compliance with the Clean Water Act, and several noted the facility seemed to be particularly well maintained. The inspections also note that water from the stormwater detention basins are used to wet

the gravel roads around the facility to keep dust down. This has lessened the discharge from the basins, leading to a nearly no-discharge situation. There is one no-discharge leachate pond on site which is regulated by the MDNR SWMP.

FACILITY MAP:



Part II. RECEIVING STREAM INFORMATION

RECEIVING WATER BODY'S WATER QUALITY:

The receiving stream Tributary to Turkey Creek has no concurrent water quality data available. Turkey Creek is approximately 0.13 miles from Outfall #001 and approximately 0.70 miles from Outfall #002. This segment of Turkey Creek falls under the TMDL for the Big River, Flat River Creek, and Shaw Branch, which went into effect 03/10/2010 for lead, zinc, and total suspended solids. Timber Ridge Landfill is not specifically mentioned as a contributor 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 1st 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 HHP) = Human Health Protection (fish consumption); IRR = irrigation;

LWP (formerly LWL) = 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 Turkey Creek	n/a	n/a	GEN	0.13 miles	07140104-0403 Ditch Creek- Big River
	Turkey Creek	C	2078	AQL, HHP, IRR, LWL, SCR, WBC-B		
#002	Tributary to Turkey Creek	n/a	n/a	GEN	0.7 miles	
	Turkey Creek	C	2078	AQL, HHP, IRR, LWL, SCR, WBC-B		

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 http://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)] that 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. Five years of DMR monitoring data for the outfalls was collected and submitted.
 - ✓ The previous permit limits for outfalls #001 and #002 were established in error, based on limits for industrial wastewater, however, this facility has stormwater outfalls. 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 in the derivation discussion have been determined to be feasible, affordable, and protective of 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 monitoring the groundwater at the site. The MDNR Solid Waste division is overseeing the groundwater sampling at the site. At this time, the Water Protection Program is not requiring reporting of the data to this branch. Groundwater monitoring and reporting at the facility are being conducted in accordance with the approved facility's groundwater monitoring plan and the applicable Missouri regulations.

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.

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; this facility is located in a watershed with a TMDL for Big River, Flat River Creek, and Shaw Branch, approved 03/24/2010 for lead, total suspended solids, and zinc; however, this facility is not specifically mentioned in this TMDL, and after reviewing the data available, it is in the permit writer's best professional judgment that this facility does not contribute lead to the watershed. Zinc was included for monitoring in the last permit cycle. outfall #001; however it is in the permit writer's best professional judgment after reviewing DMRs for the last five years that this facility does not contribute significant amounts of zinc to the watershed. Zinc will continue to be monitored, however, due to lack of sufficient data to support removal from this permit. This facility has limits and benchmarks in place to control TSS leaving the site.

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.

- ✓ Not applicable; wasteload allocations were not calculated.

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. Stormwater is not routinely monitored for whole effluent toxicity because of the fleeting and irreproducible nature of precipitation events.

Part IV. EFFLUENT LIMITS DETERMINATION

OUTFALL #001- LANDFILL STORMWATER

Effluent limitations derived and established in the below tables 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 OUTFALL #001	UNIT	BASIS FOR LIMITS	DAILY MAX	BENCH MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL								
FLOW	MGD	1	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT. EST.
PRECIPITATION	INCHES	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT. EST.
CONVENTIONAL								
COD	MG/L	6	90	-	90/60	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	MG/L	1, 3	**	10	15/10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ‡	SU	1, 3	6.5 TO 9.0	6.5 to 9.0	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	M/L/HR	6	**	1.5	1.5/1.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	MG/L	1,3, 4, 6	80	-	80/50	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS								
TOTAL HARDNESS AS CaCO ₃	mg/L	6	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
ALUMINUM, TOTAL RECOVERABLE	µg/L	1, 2, 3, 6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TOTAL RECOVERABLE	µg/L	1, 2, 3, 6	**	26	*/*	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TOTAL RECOVERABLE	µg/L	1, 2, 3, 6	**	4000	1600/800	ONCE/QUARTER	ONCE/QUARTER	GRAB
THALLIUM, TOTAL RECOVERABLE	µg/L	2,6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TOTAL RECOVERABLE	µg/L	1, 3, 6, 7	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER								
FLUORIDE	mg/L	1,6	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB

* - Monitoring requirement only

** -Indicates monitoring associated with a benchmark value

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

NEW - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 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. WET Test Policy |

DERIVATION AND DISCUSSION OF LIMITS OUTFALL #001:

PHYSICAL:

Flow

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

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)

A maximum daily limit of 90 mg/L will be applied to this outfall. The previous permit had a daily maximum limit of 90 mg/L, with a monthly average limit of 60 mg/L. There were two exceedances of COD during the last permit cycle. Due to this, it is in the best professional judgment of the permit writer that this facility has a high future potential to have COD values that exceed water quality standards. For this reason, a limit will be set as opposed to monitoring or a benchmark. This permit applies only the Daily Maximum limit with no Monthly Average limit. It is in the permit writer's best professional judgment that monthly average limits were applied in error in the previous permit. Due to the intermittent flow nature of stormwater and quarterly sampling, a monthly average cannot be obtained reliably. COD is the measurement of water's capacity to consume oxygen during decomposition of an organic matter and the oxidation of inorganic chemicals. COD is also a valuable indicator parameter. Landfills receive, as part of their business, various types of material that can have potential to cause pollution of the receiving water body. 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

Monitoring only, with a 10 mg/L benchmark. The previous permit had a daily maximum limit of 15 mg/L and a monthly average limit of 10mg/L. There were no exceedances of this parameter in the last permit cycle. This permit applies only a Daily Maximum benchmark rather than a Daily and Monthly Average limit. It is in the permit writer's best professional judgment that monthly average limits were applied in error in the previous permit. Due to the intermittent flow nature of stormwater and quarterly sampling, a monthly average cannot be obtained reliably. In accordance with 10 CSR 20-7.031 Table A: Criteria for Designated Uses, a 10 mg/L maximum applies at all times. 10 mg/L is the level above which a sheen is expected to form on a water body and above which narrative criteria violations are anticipated to occur. Effluent benchmarks set at this level are expected to also be protective of the general criteria [10 CSR 20-7.031(4)], which are applicable to all waters of the state at all times, and designated uses [10 CSR 20-7.031(1)(C)] to be maintained for the receiving stream.

pH

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

Settleable Solids (SS)

Monitoring only with a benchmark set at 1.5 mL per L per hour as a Daily Maximum are applicable to this facility. The previous permit had a daily maximum limit of 1.5 mL/L/hr, and a monthly average limit of 1.0 mL/L/hr. There were no exceedances of this parameter in the previous permit cycle, but due to limited data being available, monitoring will be continued on this outfall for this parameter. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses that benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site.

Total Suspended Solids (TSS)

Effluent limitations of 80 mg/L as a Daily Maximum are applicable to this facility. Effluent limitations have been retained from the previous state operating permit after re-evaluation. This permit applies only the Daily Maximum limit rather than a Daily and Monthly Average limit. It is in the permit writer's best professional judgment that monthly average limits were applied in error in the previous permit. Due to the intermittent flow nature of stormwater and quarterly sampling, a monthly average cannot be obtained reliably. There was one violation of this parameter in the previous permit cycle. Due to this violation, a limit will be retained for this parameter to protect water quality standards. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can cling to the suspended particles. Therefore, less suspended solids will also lead to less overall pollution of the receiving stream.

METALS:

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). There is no conversion factor for iron or aluminum, and the conversion factor for zinc is not included due to monitoring only requirement. 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
Copper	0.960	0.960

Value calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 193 mg/L.

Total Hardness as CaCO₃

Monitoring only. The toxicities of certain metals are hardness dependent. Continuing to monitor this parameter is necessary for limit calculations of these metals.

Aluminum, Total Recoverable

Monitoring only. This is a new parameter for this facility. It is in the best professional judgment of the permit writer to include aluminum monitoring. Aluminum is a pollutant of concern with landfills, and other landfill permits have similar monitoring requirements or limits.

Copper, Total Recoverable

Monitoring with a benchmark of 26µg/L. This parameter was monitoring only in the previous permit. There were no previous exceedances of the aquatic life criteria for this outfall. However, after reviewing the DMR data for the last five years, it is in the best professional judgment of the permit writer that there is potential to exceed Missouri’s water quality standards at this outfall. The AQL standard for stormwater hardness of 193 mg/L is 26µg/L, and several analytical results for this outfall were at or close to 20 µg/L. Therefore it is in the permit writer’s best professional judgment to apply a benchmark to this outfall for this parameter to protect the aquatic life of the receiving stream under the general criteria “Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life” found in 10 CSR 20-7.031(4)(D) .

Determination of base WQ criteria:

Acute AQL criteria: $(e^{((0.9422*\ln(193)-1.700300))})*(0.96) = 25 \mu\text{g/L}$

Conversion factor for Copper applied

$25 \mu\text{g/L}/0.96 = 26 \mu\text{g/L}$

Iron, Total Recoverable

This permit establishes a benchmark of 4000 µg/L for stormwater discharges of iron. The chronic water quality standard for iron is 1000 µg/L. Due to the sporadic nature of stormwater discharges, the department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism’s ability to survive within the designated concentration for seven days. Stormwater is rarely discharged continuously for seven days. Conversely, acute water quality standards are applicable, but are non-existent for iron. Iron is naturally present in stormwater runoff, often in excess of 1000 µg/L, due to its ubiquity within soils of the state of Missouri. After reviewing other sources of data, it is in the permit writer’s best professional judgment to acknowledge Kentucky’s iron surface water quality standard for warm water aquatic habitat as a benchmark for this facility. This numerical basis was determined through research on freshwater organisms by Birge et al. and published in 1985. 40 CFR 122.44(k) indicates that a BMP-based approach is appropriate (see facility’s Stormwater Pollution Prevention Plan) for iron discharges in stormwater. In accordance with the department’s current stormwater permitting guidance, under the direction of EPA guidance, it is the permit writer’s best professional judgment that an iron benchmark of 4000 µg/L is both feasible for the facility and protective of in-stream water quality. This benchmark is accompanied by a TSS limit of 80 mg/L. It is the permit writer’s best professional judgment this combination of parameters is protective of all numeric and general criteria within the receiving stream.

Magnesium

Not included in this permit. The permittee indicated they believed magnesium to be found in their discharge due to landfill activities; however, there are no water quality regulations for this parameter, and it will not be included in this permit.

Thallium, Total Recoverable

Monitoring only. Thallium was historically included in this permit as a monitoring parameter, however, during the last permit cycle, it was removed due to there being no AQL criteria in place. It will be reinstated in this permit due to the development of state HHF criteria for this parameter. Thallium is a known pollutant of concern with landfills, and monitoring or limits are found for this parameter in other landfill permits. Thallium is easily soluble in water and is readily available to aquatic organisms. It is known to be a bio-accumulative metal in both aquatic plants and animals. Thallium can have significant impacts on humans who are chronically exposed through fish consumption, such as organ damage and hair-loss.

Zinc, Total Recoverable

Monitoring requirement only. Retained from previous permit after re-evaluation. This parameter needs further monitoring to determine if it has potential to exceed Missouri's WQS. While all reported levels of zinc have been low for this outfall, not many data points are available to make a reliable, scientific determination for potential to exceed water quality.

OTHER:

Fluoride

Monitoring only. The previous permit also had monitoring only for this parameter. This facility has low levels of fluoride reported; however, Turkey Creek has a designated use of LWW which defines 4 mg/L as the criterion to be maintained in-stream. There is not enough data available to make a reliable, scientific determination of potential to exceed water quality standards, therefore, to be protective of this stream use, monitoring will be continued.

OUTFALL #002- LANDFILL STORMWATER

PARAMETERS OUTFALL #002	UNIT	BASIS	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL								
FLOW	MGD	1	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	INCHES	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL								
COD	MG/L	6, 8	**	90	90/60	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	MG/L	1, 3	**	10	15, 10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ‡	SU	1, 3	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	M ^L /L/HR	6	**	1.5	1.5/1.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	MG/L	6, 8	**	80	80/50	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS								
TOTAL HARDNESS AS CaCO ₃	mg/L	6	*	*	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
ALUMINUM, TOTAL RECOVERABLE	µg/L	6, 8	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TOTAL RECOVERABLE	µg/L	6, 8	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TOTAL RECOVERABLE	µg/L	6, 8	**	4000	1600/800	ONCE/QUARTER	ONCE/QUARTER	GRAB
THALLIUM, TOTAL RECOVERABLE	µg/L	2,6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TOTAL RECOVERABLE	µg/L	6, 7, 9	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL PETROLEUM HYDROCARBONS								
GASOLINE RANGE ORGANICS (TPH-GRO)	mg/L	3,6	**	10	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL RANGE ORGANICS (TPH-ORO)	mg/L	3,6	**	10	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
DIESEL RANGE ORGANICS (TPH-DRO)	mg/L	3,6	**	10	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER								
FLUORIDE	mg/L	6	*	*	SAME	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 | |

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 benchmark of 90 mg/L will be applied to this outfall. The previous permit had a daily maximum limit of 90 mg/L, with a monthly average limit of 60 mg/L. There were no exceedances of COD during the last permit cycle. COD is the measurement of water's capacity to consume oxygen during decomposition of organic matter and the oxidation of inorganic chemicals. COD is also a valuable indicator parameter. Landfills receive, as part of their business, various types of material that can have potential to cause pollution of the receiving water body. 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

Monitoring only, with a 10 mg/L benchmark. The previous permit had a daily maximum limit of 15 mg/L and a monthly average limit of 10 mg/L. There were no exceedances of this parameter in the last permit cycle. This permit applies only a Daily Maximum benchmark rather than a Daily and Monthly Average limit. It is in the permit writer's best professional judgment that monthly average limits were applied in error in the previous permit. Due to the intermittent flow nature of stormwater and quarterly sampling, a monthly average cannot be obtained reliably. In accordance with 10 CSR 20-7.031 Table A: Criteria for Designated Uses, a 10 mg/L maximum applies at all times to protect aquatic life. 10 mg/L is the level above which a sheen is expected to form on a water body and above which narrative criteria violations are anticipated to occur. Effluent benchmarks set at this level are expected to also be protective of the general criteria [10 CSR 20-7.031(4)], which are applicable to all waters of the state at all times, and designated uses [10 CSR 20-7.031(1)(C)] to be maintained for the receiving stream.

pH

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

Settleable Solids (SS)

Monitoring only with a benchmark set at 1.5 mL per L per hour as a Daily Maximum are applicable to this facility. The previous permit had a daily maximum limit of 1.5 mL/L/hr, and a monthly average limit of 1.0 mL/L/hr. There were no exceedances of this parameter in the previous permit cycle. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses that benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site.

Total Suspended Solids (TSS)

Monitoring with a benchmark set at 80 mg/L. Previous permit had daily maximum limits of 80mg/L and monthly average limits of 50mg/L. There were no violations of this parameter for this outfall in the previous permit cycle. A benchmark will continue to be protective of water quality for this parameter, and will allow for a monitoring and adjustment of BMPs as needed. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can cling to the suspended particles. Therefore, less suspended solids will also lead to less overall pollution of the receiving stream.

METALS:

General warm-water habitat criteria apply (WWH) designated as AQL in 10 CSR 20-7.031Table 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). The conversion factors for metals table will not be included with this outfall; iron has no conversion factor and all other metals are monitoring only. 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.

Total Hardness as CaCO₃

Monitoring only. The toxicities of certain metals are hardness dependent. Continuing to monitor this parameter is necessary for limit calculations of these metals

Aluminum, Total Recoverable

Monitoring only. This is a new parameter for this facility. It is in the best professional judgment of the permit writer to include aluminum monitoring to determine whether aluminum is present in their stormwater discharges. Aluminum is a pollutant of concern with landfills, and other landfill permits have similar monitoring requirements or limits.

Copper, Total Recoverable

Monitoring only. This is maintained from the previous permit after re-evaluation. More monitoring is required to determine reliably and scientifically that this facility will not exceed water quality standards for this parameter.

Iron, Total Recoverable

This permit establishes a benchmark of 4000µg/L for stormwater discharges of iron. The chronic water quality standard for iron is 1000 µg/L. Due to the sporadic nature of stormwater discharges, the department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism's ability to survive within the designated concentration for seven days. Stormwater is rarely discharged continuously for seven days. Conversely, acute water quality standards are applicable, but are non-existent for iron. Iron is naturally present in stormwater runoff, often in excess of 1000 µg/L, due to its ubiquity within soils of the state of Missouri. After reviewing other sources of data, it is in the permit writer's best professional judgment to acknowledge Kentucky's iron surface water quality standard for warm water aquatic habitat as a benchmark for this facility. This numerical basis was determined through research on freshwater organisms by Birge et al. and published in 1985. 40 CFR 122.44(k) indicates that a BMP-based approach is appropriate (see facility's Stormwater Pollution Prevention Plan) for iron discharges in stormwater. In accordance with the department's current stormwater permitting guidance, under the direction of EPA guidance, it is the permit writer's best professional judgment that an iron benchmark of 4000 µg/L is both feasible for the facility and protective of in-stream water quality. This benchmark is accompanied by a TSS benchmark of 80 mg/L. It is the permit writer's best professional judgment this combination of parameters is protective of all numeric and general criteria within the receiving stream.

Magnesium

Not included in this permit. The permittee indicated they believed magnesium to be found in their discharge due to landfill activities; however, there are no water quality regulations for this parameter, and it will not be included in this permit.

Thallium, Total Recoverable

Monitoring only. Thallium was historically included in this permit as a monitoring parameter, however, during the last permit cycle, it was removed due to there being no AQL criteria in place to protect. It will be reinstated in this permit due to the development of state AQL criteria for this parameter. Thallium is a known pollutant of concern with landfills. Thallium is easily soluble in water and is readily available to aquatic organisms. It is known to be a bio-accumulative metal in both aquatic plants and animals. Thallium can have significant impacts on humans who are chronically exposed through fish consumption, such as organ damage and hair-loss.

Zinc, Total Recoverable

Monitoring only. This is maintained from the previous permit after re-evaluation. More monitoring is required to determine reliably and scientifically that this facility will not exceed water quality standards for this parameter.

TOTAL PETROLEUM HYDROCARBONS:

Diesel Range Organics (TPH-DRO)

Monitoring only with a benchmark set at 10 mg/L. This is a new parameter for this outfall. It was added due to the use of the runoff area as motor freight vehicle parking and storage of roll off dumpsters. 10 mg/L is the level above which a sheen is expected to form on a water body and above which narrative criteria violations are anticipated to occur. Effluent benchmarks set at this level are expected to be protective of the general criteria [10 CSR 20-7.031(4)], which are applicable to all waters of the state at all times, and designated uses [10 CSR 20-7.031(1)(C)] to be maintained for the receiving stream .

Gasoline Range Organics (TPH-GRO)

Monitoring only with a benchmark set at 10 mg/L. This is a new parameter for this outfall. It was added due to the use of the runoff area as motor freight vehicle parking and storage of roll off dumpsters. 10 mg/L is the level above which a sheen is expected to form on a water body and above which narrative criteria violations are anticipated to occur. Effluent benchmarks set at this level are expected to also be protective of the general criteria [10 CSR 20-7.031(4)], which are applicable to all waters of the state at all times, and designated uses [10 CSR 20-7.031(1)(C)] to be maintained for the receiving stream .

Oil Range Organics (TPH-ORO)

Monitoring only with a benchmark set at 10 mg/L. This is a new parameter for this outfall. It was added due to the use of the runoff area as motor freight vehicle parking and storage of roll off dumpsters. 10mg/L is the level above which a sheen is expected to form on a water body and above which narrative criteria violations are anticipated to occur. Effluent benchmarks set at this level are expected to also be protective of the general criteria [10 CSR 20-7.031(4)], which are applicable to all waters of the state at all times, and designated uses [10 CSR 20-7.031(1)(C)] to be maintained for the receiving stream .

OTHER:

Fluoride

Monitoring only. The previous permit also had monitoring only for this parameter. This facility has low levels of fluoride reported; however, Turkey Creek has a designated use of LWW. There is not enough data available to make a reliable, scientific determination of potential to exceed water quality standards, therefore, to be protective of this stream use, monitoring will be continued.

Part V. SAMPLING AND REPORTING REQUIREMENTS:

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

ELECTRONIC DISCHARGE MONITORING REPORTING:

Due to newly promulgated federal regulations, all facilities must 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. Grab samples are 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 4th quarter, 2017.*

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 01/22/2016 to 02/22/2016. No responses were received.

DATE OF FACT SHEET: (10/06/2015)

COMPLETED BY:

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



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.



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

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- 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



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

- 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.



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

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.



RECEIVED

MAR 29 2013

WATER PROTECTION PROGRAM

IESI Timber Ridge Landfill

March 28, 2013

Mr. Refaat Mefrakis
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, Missouri 65102

**RE: IESI Timber Ridge Landfill – Operating License Permit# MO-0127345
Storm Water Operating Permit Renewal**

Mr. Refaat Mefrakis:

IESI Timber Ridge Landfill (IESI) has prepared this National Pollutant Discharge Elimination System (NPDES) permit renewal. Forms A and C, including location and process maps, are included as attachments.

Should any questions arise or clarification be needed, please call me at (314) 409-1202.

Sincerely,

Thomas K. Jacobsmeyer, P.E.
Site Engineer

Brady Stewart, E.I.T.
Project Engineer

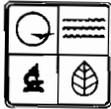
Attachments: Attachment A – Form A – Application for Construction or Operating Permit Under Missouri Clean Water Law
Attachment B – Form C – Application for Discharge Permit – Manufacturing, Commercial, Mining, Silviculture Operations, Process & Storm Water

cc: Walter Callaham, IESI Timber Ridge Landfill
Mike Friesen, IESI Timber Ridge Landfill

ATTACHMENT A

**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT UNDER MISSOURI
CLEAN WATER LAW**

C1229
AP 14905



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 3/29/13	FEE SUBMITTED 08B

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- 0127345 Expiration Date October 30, 2013
- An operating permit modification: permit # MO- _____ Reason: _____

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

2. FACILITY

NAME IESI Timber Ridge Landfill		TELEPHONE WITH AREA CODE (573) 678-2990	
ADDRESS (PHYSICAL) 12851 State Highway H		CITY Richwoods	FAX (573) 678-2991
		STATE MO	ZIP CODE 63071

3. OWNER

NAME IESI MO Corporation		E-MAIL ADDRESS wcallahan@iesi.com	TELEPHONE WITH AREA CODE (573) 678-2990
ADDRESS (MAILING) 2301 Eagle Parkway, Suite 200		CITY Fort Worth	FAX (573) 687-2991
		STATE TX	ZIP CODE 76177

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

4. CONTINUING AUTHORITY

NAME Same as Owner		TELEPHONE WITH AREA CODE	
ADDRESS (MAILING)		CITY	FAX
		STATE	ZIP CODE

5. OPERATOR

NAME Same as Owner		CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE
ADDRESS (MAILING)		CITY	FAX
		STATE	ZIP CODE

6. FACILITY CONTACT

NAME Walter Callahan		TITLE Landfill Manager	TELEPHONE WITH AREA CODE (314) 650-8652
			FAX

7. ADDITIONAL FACILITY INFORMATION

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

001 _____ 1/4 _____ 1/4 _____ Sec _____ T _____ R _____ Washington County
 UTM Coordinates Easting (X): +3810338 _____ Northing (Y): -09046158 _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 _____ 1/4 _____ 1/4 _____ Sec _____ T _____ R _____ Washington County
 UTM Coordinates Easting (X): 38deg 10' 13.5" _____ Northing (Y): 90deg 45' 52.2" _____

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 4953 _____ and NAICS 562212 _____ 002 – SIC 4231 _____ and NAICS 488490 _____
 003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

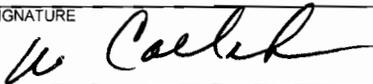
8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
(Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? 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 Chesterfield Cattle Company			
ADDRESS 317 Clarkson Road	CITY Ellsville	STATE MO	ZIP CODE 63011

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) Walter Callahan, Landfill Manager	TELEPHONE WITH AREA CODE (314) 650-8652
SIGNATURE 	DATE SIGNED 3-28-13

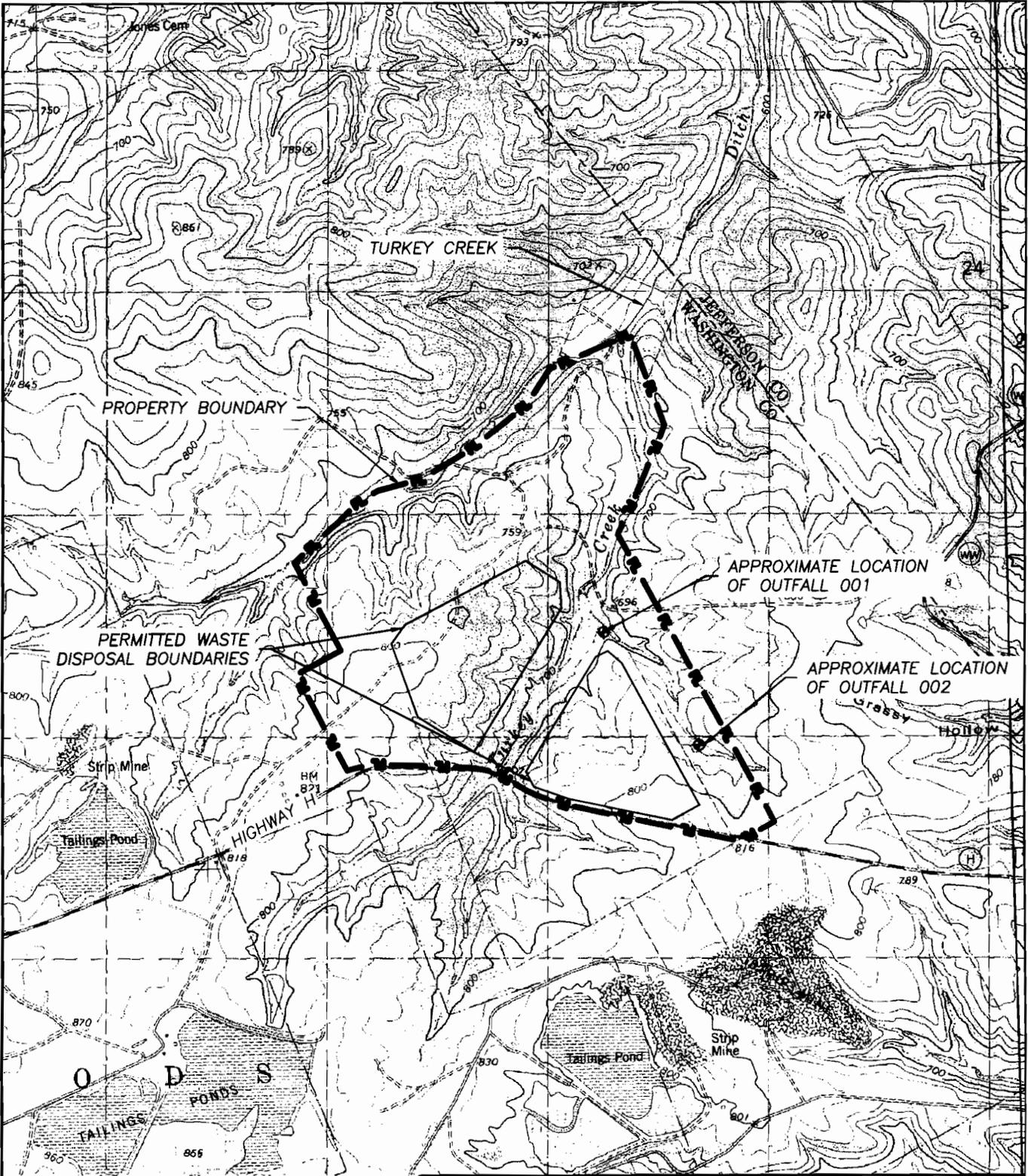
MO 780-1479 (01-09)

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

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

HAVE YOU INCLUDED:

- 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?



C:\Users\lbafean\Documents\Timber Ridge Landfill\Projects\2013 NPDES Renewal\2013 NPDES RENEWAL.dwg March 26, 2013 3:28:22 pm (sat)

NOTE:
 USGS 7.5 MINUTE
 RICHWOODS
 QUADRANGLE



0 1,000 2,000

SCALE IN APPROXIMATE FEET



TIMBER RIDGE LANDFILL
 12581 State Road H, P.O. Box 88
 Richwoods, Missouri 63071

SITE LOCATION MAP
2013 NPDES RENEWAL
IESI TIMBER RIDGE LANDFILL

Scale	AS SHOWN	Date	3/25/13	File Name	2013 NPDES RENEWAL.dwg	Drawing No.	1
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ATTACHMENT B

**FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL,
MINING, SILVICULTURE OPERATIONS, PROCESS & STORM WATER**



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS & STORM WATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY
 IESI Timber Ridge Landfill

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
 MO-0127345

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 4953 B. SECOND 4231
 C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION

OUTFALL NUMBER (LIST) _____ 1/4 _____ 1/4 SEC _____ T _____ R _____ COUNTY _____

Outfall 001: UTM Coord. E+3810338, N- -09046158, US Survey 3022, Washington County
 Outfall 002: UTM Coord. E:38deg 10' 13.5", N: 90deg 45' 52.2.; US Survey 3022, Washington County

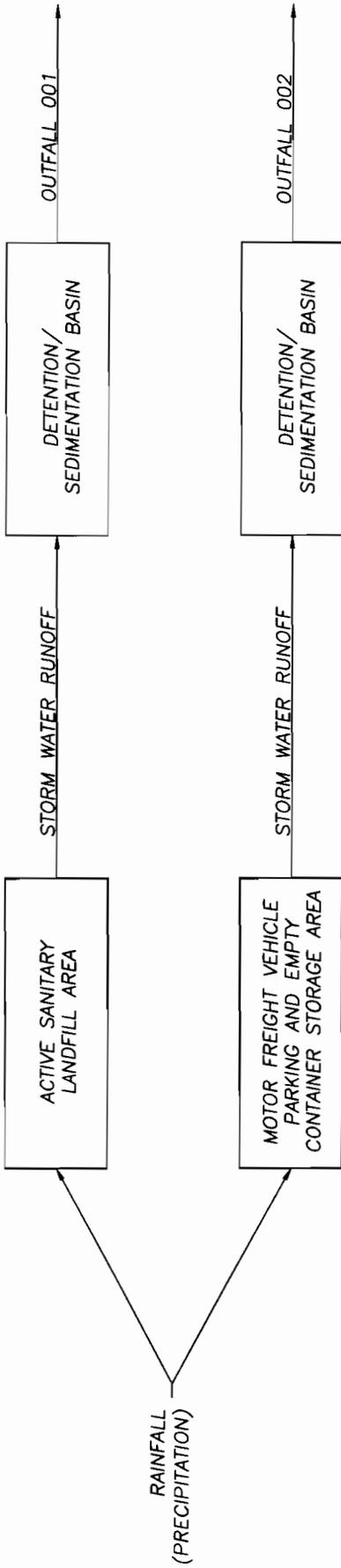
2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
001	Unnamed Tributary to Turkey Creek
002	Unnamed Tributary to Turkey Creek

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Outfall 001:
 Stormwater run-off from an active sanitary (non-hazardous) landfill with either daily cover, alternate daily cover, intermediate cover, or final in-place cover. Stormwater run-off flows from the landfill activity to an onsite stormwater detention basin prior to being discharged from Outfall 001.

Outfall 002:
 Stormwater run-off from motor freight vehicle parking and container storage of empty roll-off boxes and dumpsters drain to an onsite stormwater detention basin prior to being discharged from Outfall 002.



TIMBER RIDGE LANDFILL

12581 State Road H, P.O. Box 88
Richwoods, Missouri 63071

PROCESS DRAWING
2013 NPDES RENEWAL
IESI TIMBER RIDGE LANDFILL

Scale	NONE	Date	3/21/13	File Name	2013 NPDES RENEWAL.dwg	Drawing No.	1
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2.40 CONTINUED

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

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

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</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 THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. 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)

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)
PDC Laboratories, Inc.	3278 N. Highway 67 Florissant, MO	(314) 432-0550	At Outfall 001: Chemical Oxygen Demand Total Suspended Solids Settleable Solids Oil and Grease (HEM) Fluoride Copper- Total Recoverable Iron- Total Recoverable Zinc - Total Recoverable Hardness, Total as CaCO3

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 the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Walter Callahan, Landfill Manager	TELEPHONE NUMBER WITH AREA CODE (314) 650-8652
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 3-28-13

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.
(Use the same format)
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)		B. NO. OF ANALYSES	
	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 (1) CONCENTRATION		(2) MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
A. Biochemical Oxygen Demand (BOD)	N/A	N/A										
B. Chemical Oxygen Demand (COD)	11	N/A					1	mg/L				
C. Total organic Carbon (TOC)	N/A	N/A										
D. Total Suspended Solids (TSS)	9.2	N/A					1	mg/L				
E. Ammonia (as N)	N/A	N/A										
F. Flow	Stormwater Only		VALUE							VALUE		
G. Temperature (winter)	VALUE		VALUE					°C		VALUE		
H. Temperature (summer)	VALUE		VALUE					°C		VALUE		
I. pH	MINIMUM 6.5	MAXIMUM 9	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a 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				5. INTAKE (optional)		B. NO. OF ANALYSES	
	A. BELIEVED PRESENT	B. 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	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS		
	A. Bromide (24959-67-9)		X	N/A	N/A									
B. Chlorine Total Residual		X	N/A	N/A										
C. Color		X	N/A	N/A										
D. Fecal Coliform		X	N/A	N/A										
E. Fluoride (16984-48-8)	X		N/A	N/A		0.275				mg/L				
F. Nitrate—Nitrate (as N)		X	N/A	N/A										

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						
G. Nitrogen Total Organic (as N)		X	N/A	N/A										
H. Oil and Grease	X		<5.0	N/A					1	mg/L				
I. Phosphorus (as P) Total (7723-14-0)		X	N/A	N/A										
J. Sulfate (as SO ₄) (14808-79-8)		X	N/A	N/A										
K. Sulfide (as S)		X	N/A	N/A										
L. Sulfite (as SO ₃) (14265-45-3)		X	N/A	N/A										
M. Surfactants		X	N/A	N/A										
N. Aluminum Total (7429-90-5)		X	N/A	N/A										
O. Barium Total (7440-39-3)		X	N/A	N/A										
P. Boron Total (7440-42-8)		X	N/A	N/A										
Q. Cobalt Total (7440-48-4)		X	N/A	N/A										
R. Iron Total (7439-89-6)	X		0.37	N/A					1	mg/L				
S. Magnesium Total (7439-95-4)		X	N/A	N/A										
T. Molybdenum Total (7439-98-7)		X	N/A	N/A										
U. Manganese Total (7439-96-5)		X	N/A	N/A										
V. Tin Total (7440-31-6)		X	N/A	N/A										
W. Titanium Total (7440-32-6)		X	N/A	N/A										

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. 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			(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-36-9)		X	N/A	N/A									
2M. Beryllium, Total (7440-41-7)		X	N/A	N/A									
3M. Magnesium, Total (7439-95-4)		X	N/A	N/A									
4M. Molybdenum, Total (7439-98-7)		X	N/A	N/A									
5M. Tin, Total (7440-31-5)		X	N/A	N/A									
6M. Titanium, Total (7440-32-6)		X	N/A	N/A									
7M. Mercury, Total (7439-97-6)		X	N/A	N/A									
8M. Selenium, Total (7782-49-2)		X	N/A	N/A									
9M. Thallium, Total (7440-28-0)		X	N/A	N/A									
10M. Phenols, Total		X	N/A	N/A									
RADIOACTIVITY													
(1) Alpha Total		X	N/A	N/A									
(2) Beta Total		X	N/A	N/A									
(3) Radium Total		X	N/A	N/A									
(4) Radium 226 Total		X	N/A	N/A									

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS

OUTFALL NO.
 002

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)		B. NO. OF ANALYSES	
	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		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Biochemical Oxygen Demand (BOD)	N/A	N/A										
B. Chemical Oxygen Demand (COD)	N/A	N/A										
C. Total organic Carbon (TOC)	N/A	N/A										
D. Total Suspended Solids (TSS)	N/A	N/A										
E. Ammonia (as N)	N/A	N/A										
F. Flow	VALUE	Stormwater Only	MINIMUM	MAXIMUM	VALUE							
G. Temperature (winter)	VALUE				VALUE							
H. Temperature (summer)	VALUE				VALUE							
I. pH	MINIMUM	MAXIMUM			MINIMUM	MAXIMUM						

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a 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				5. INTAKE (optional)		B. NO. OF ANALYSES	
	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. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Bromide (24959-67-9)		X	N/A	N/A										
B. Chlorine Total Residual		X	N/A	N/A										
C. Color		X	N/A	N/A										
D. Fecal Coliform		X	N/A	N/A										
E. Fluoride (16984-48-8)		X	N/A	N/A										
F. Nitrate— Nitrate (as N)		X	N/A	N/A										

No discharge has been observed since Outfall 002 was permitted. No analytical results are available.

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						
G. Nitrogen Total Organic (as N)		X	N/A	N/A										
H. Oil and Grease	X		N/A	N/A										
I. Phosphorus (as P) Total (7723-14-0)		X	N/A	N/A										
J. Sulfate (as SO ₄) (14808-79-8)		X	N/A	N/A										
K. Sulfide (as S)		X	N/A	N/A										
L. Sulfite (as SO ₃) (14265-45-3)		X	N/A	N/A										
M. Surfactants		X	N/A	N/A										
N. Aluminum Total (7429-90-5)		X	N/A	N/A										
O. Barium Total (7440-39-3)		X	N/A	N/A										
P. Boron Total (7440-42-8)		X	N/A	N/A										
Q. Cobalt Total (7440-48-4)		X	N/A	N/A										
R. Iron Total (7439-89-6)		X	N/A	N/A										
S. Magnesium Total (7439-95-4)		X	N/A	N/A										
T. Molybdenum Total (7439-98-7)		X	N/A	N/A										
U. Manganese Total (7439-96-5)		X	N/A	N/A										
V. Tin Total (7440-31-5)		X	N/A	N/A										
W. Titanium Total (7440-32-6)		X	N/A	N/A										

No discharge has been observed since Outfall 002 was permitted. No analytical results are available.

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. 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					
METALS, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-36-9)		X	N/A	N/A									
2M. Beryllium, Total (7440-41-7)		X	N/A	N/A									
3M. Magnesium, Total (7439-95-4)		X	N/A	N/A									
4M. Molybdenum, Total (7439-98-7)		X	N/A	N/A									
5M. Tin, Total (7440-31-5)		X	N/A	N/A									
6M. Titanium, Total (7440-32-6)		X	N/A	N/A									
7M. Mercury, Total (7439-97-6)		X	N/A	N/A									
8M. Selenium, Total (7782-49-2)		X	N/A	N/A									
9M. Thallium, Total (7440-28-0)		X	N/A	N/A									
10M. Phenols, Total		X	N/A	N/A									
RADIOACTIVITY													
(1) Alpha Total		X	N/A	N/A									
(2) Beta Total		X	N/A	N/A									
(3) Radium Total		X	N/A	N/A									
(4) Radium 226 Total		X	N/A	N/A									

No discharge has been observed since Outfall 002 was permitted. No analytical results are available.