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-0104540
Owner:	Waste Corporation of Missouri, Inc.
Address:	33924 Olathe Drive, Lebanon, MO 65536
Continuing Authority:	same as above
Address:	same as above
Facility Name:	Central Missouri Landfill
Facility Address:	24461Oak Grove Lane, Sedalia, MO 65301
Legal Description:	see page two, Pettis County
UTM Coordinates:	see page two
Receiving Stream:	see page two
First Classified Stream and ID:	see page two
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405

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

FACILITY DESCRIPTION

Active landfill; SIC # 4953. The facility has four stormwater outfalls. One outfall is associated with the leachate collection pond; this outfall is not allowed to discharge to waters of the state.

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.

November 1, 2016
Effective Date

Harry D. Bozoian, Director, Department of Natural Resources

December 31, 2020
Expiration Date

John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL#001 – Closed Landfill Cells - SIC #4953
Stormwater Runoff/Sedimentation Pond; 7.2 acres drainage area

Legal Description:	SE ¼, NW ¼, Sec. 36, T46N, R22W, Pettis County
UTM Coordinates:	X = 474535, Y = 4286260
Receiving Stream:	Muddy Creek
First Classified Stream and ID:	Muddy Creek (P) 0853; 303(d) listed
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405
Design Flow:	1.1 MGD using 1 in 25 year, 24 hour storm event of 6.2 inches and 90% runoff
Actual Flow:	dependent upon precipitation

Abandoned and Closed 2016

OUTFALL #002 – Compost Site, Fleet Parking Lot, Leachate Pond, and Transfer Station - SIC #4953
Stormwater Runoff/Sedimentation Pond only. Transfer station leachate pumped to 2000-gallon holding tank transferred to outfall #003 which is no-discharge; 36.2 acres drainage area

Legal Description:	SE ¼, NE ¼, Sec. 36, T46N, R22W, Pettis County
UTM Coordinates:	X = 475432, Y = 4286375
Receiving Stream:	Tributary to Muddy Creek (8-20-13 MUDD V1.0) (C) 3960
First Classified Stream and ID:	Tributary to Muddy Creek (8-20-13 MUDD V1.0) (C) 3960
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405
Design Flow:	Design flow is 5.5 MGD using 1 in 25 year, 24 hour storm of 6.2 inches and 90% runoff
Actual Flow:	dependent upon precipitation

OUTFALL #003 – Leachate Storage Basin - No Discharge - SIC #4953 (as identified in previous permit)
Aerated leachate storage basin/Leachate is hauled to permitted POTW.

OUTFALL #004 – Active Landfill Cells, and Closed Landfill Cells - SIC #4953
Stormwater Runoff with Sedimentation Pond; 18.6 acres drainage area

Legal Description:	NE ¼, NW ¼, Sec. 36, T46N, R22W, Pettis County
UTM Coordinates:	X = 474619, Y = 4286469
Receiving Stream:	Muddy Creek
First Classified Stream and ID:	Muddy Creek (P) 0853; 303(d) listed
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405
Design Flow:	2.9 MGD using 1in 25 year, 24 hour storm of 6.2 inches and 90% runoff
Actual Flow:	dependent upon precipitation

Abandoned and Closed 2016

OUTFALL #005 – Active Landfill Cells - SIC #4953
Stormwater Runoff with Sedimentation Basin; 19.0 acres drainage area

Legal Description:	NW ¼, NE ¼, Sec. 36, T46N, R22W, Pettis County
UTM Coordinates:	X = 474765, Y = 4286799
Receiving Stream:	Tributary to Tributary to Muddy Creek
First Classified Stream and ID:	Tributary to Muddy Creek (8-20-13 MUDD V1.0) (C) 3960
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405
Design Flow:	2.9 MGD using 1 in 25 year, 24 hour storm of 6.2 inches and 90% runoff
Actual Flow:	dependent upon precipitation

OUTFALL #006 – Active Landfill Cells - SIC #4953
Stormwater runoff; new outfall this permit.

Legal Description:	NW ¼, NE ¼, Sec. 36, T46N, R22W, Pettis County
UTM Coordinates:	X = 474888, Y = 4286009
Receiving Stream:	Tributary to Tributary to Muddy Creek
First Classified Stream and ID:	Tributary to Muddy Creek (8-20-13 MUDD V1.0) (C) 3960
USGS Basin & Sub-watershed No.:	Coon Creek-Muddy Creek 10300103-0405
Design Flow:	unknown
Actual Flow:	dependent upon precipitation

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001, #002, #004, #005, #006
Stormwater Only

TABLE A-1
INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective on **November 1, 2016** and remain in effect through **October 31, 2018**. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS ∞	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 hr. estimate
Precipitation	inches	*		-	once/quarter ◊	measured
CONVENTIONAL						
Biochemical Oxygen Demand 5-day	mg/L	**		45	once/quarter ◊	grab ∞
Chemical Oxygen Demand	mg/L	**		90	once/quarter ◊	grab ∞
Oil & Grease	mg/L	**		10	once/quarter ◊	grab ∞
pH (Note A)	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						
Arsenic, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
Beryllium, Total Recoverable	µg/L	**		8.2	once/quarter ◊	grab ∞
Cadmium, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
Copper, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
Iron, Total Recoverable	µg/L	**		4000	once/quarter ◊	grab ∞
Selenium, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
Silver, Total Recoverable	µg/L	11.7		-	once/quarter ◊	grab ∞
Thallium, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
NUTRIENTS						
Ammonia as N	mg/L	*		-	once/quarter ◊	grab ∞
OTHER						
Chloride	mg/L	*		-	once/quarter ◊	grab ∞
Fluoride	mg/L	*		-	once/quarter ◊	grab ∞
Sulfate	mg/L	*		-	once/quarter ◊	grab ∞
Sulfate + Chloride	mg/L	1000		-	once/quarter ◊	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2017.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.
** Monitoring requirement with associated benchmark. See Special Conditions #10 through #14
∞ 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.
Note A The facility will report the minimum and maximum values. pH is not to be averaged.

OUTFALL #001, #002, #004, #005, #006 *Stormwater Only*	**TABLE A-2** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **November 1, 2018** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS ∞	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 hr. estimate
Precipitation	inches	*		-	once/quarter ◊	measured
CONVENTIONAL						
Biochemical Oxygen Demand 5-day	mg/L	**		45	once/quarter ◊	grab ∞
Chemical Oxygen Demand	mg/L	**		90	once/quarter ◊	grab ∞
Oil & Grease	mg/L	**		10	once/quarter ◊	grab ∞
pH (Note A)	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						
Arsenic, Total Recoverable	µg/L	33		-	once/quarter ◊	grab ∞
Beryllium, Total Recoverable	µg/L	**		8.2	once/quarter ◊	grab ∞
Cadmium, Total Recoverable	µg/L	9.8		-	once/quarter ◊	grab ∞
Copper, Total Recoverable	µg/L	26		-	once/quarter ◊	grab ∞
Iron, Total Recoverable	µg/L	**		4000	once/quarter ◊	grab ∞
Selenium, Total Recoverable	µg/L	8.2		-	once/quarter ◊	grab ∞
Silver, Total Recoverable	µg/L	11.7		-	once/quarter ◊	grab ∞
Thallium, Total Recoverable	µg/L	10.3		-	once/quarter ◊	grab ∞
NUTRIENTS						
Ammonia as N	mg/L	*		-	once/quarter ◊	grab ∞
OTHER						
Chloride	mg/L	*		-	once/quarter ◊	grab ∞
Fluoride	mg/L	*		-	once/quarter ◊	grab ∞
Sulfate	mg/L	*		-	once/quarter ◊	grab ∞
Sulfate + Chloride	mg/L	1000		-	once/quarter ◊	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2019.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.

** Monitoring requirement with associated benchmark. See Special Conditions #10 through #14

∞ 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.

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

OUTFALL #001, #002, #004, #005, #006 *Stormwater Only*	**TABLE A-3** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **November 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	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS ∞	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
BTEX						
Benzene	µg/L	*		-	once/year	grab ∞
Ethylbenzene	µg/L	*		-	once/year	grab ∞
Toluene	µg/L	*		-	once/year	grab ∞
Xylene	µg/L	*		-	once/year	grab ∞
METALS						
Antimony, Total Recoverable	µg/L	*		-	once/year	grab ∞
Barium, Total Recoverable	µg/L	*		-	once/year	grab ∞
Chromium III, Total Recoverable	µg/L	*		-	once/year	grab ∞
Chromium VI, Dissolved	µg/L	*		-	once/year	grab ∞
Cobalt, Total Recoverable	µg/L	*		-	once/year	grab ∞
Lead, Total Recoverable	µg/L	*		-	once/year	grab ∞
Manganese, Total Recoverable	µg/L	*		-	once/year	grab ∞
Mercury, Total Recoverable	µg/L	*		-	once/year	grab ∞
Nickel, Total Recoverable	µg/L	*		-	once/year	grab ∞
Zinc, Total Recoverable	µg/L	*		-	once/year	grab ∞
OTHER						
Alpha Terpineol	µg/L	*		-	once/year	grab ∞
Benzoic Acid	µg/L	*		-	once/year	grab ∞
p-Cresol	µg/L	*		-	once/year	grab ∞
Phenol	µg/L	*		-	once/year	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED YEARLY; THE FIRST REPORT IS DUE JANUARY 28, 2017.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only

∞ 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.

◊ Quarterly sampling

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

B. STANDARD CONDITIONS

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

C. SPECIAL CONDITIONS

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

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

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

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

C. SPECIAL CONDITIONS (CONTINUED)

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

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

6. Electronic Discharge Monitoring Reports
   (a) All reports and results required to be submitted by the permit, excluding 24-hour bypass reporting, must be submitted to the department via the electronic Discharge Monitoring Report Submission System (eDMR). In regards to Standard Conditions Part I, Section B, #7, the eDMR data reporting system is the only Department approved reporting method for this permit.
   (b) To access the eDMR data reporting system, use the following link in your web browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.

7. Reporting of Non-Detects
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   (c) The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
   (d) 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.

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

9. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 ET. SEQ.) and the use of such pesticides shall be in a manner consistent with its label.

10. The purpose of the 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.

C. SPECIAL CONDITIONS (CONTINUED)

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

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

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

C. SPECIAL CONDITIONS (CONTINUED)

13. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
    (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
    (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
    (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
    (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
    (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. 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.

14. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to MDNR and EPA personnel.

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

D. SCHEDULE OF COMPLIANCE

Schedules of compliance are allowed under 40 CFR 122.47. The facility shall attain compliance with final effluent limitations for total recoverable cadmium, total recoverable copper, total recoverable selenium, and total recoverable thallium at all stormwater outfalls as soon as reasonably achievable:

- ✓ Within six months of the effective date of this permit, the permittee shall report progress made in attaining compliance with the final effluent limits.

- ✓ The permittee shall submit interim progress reports detailing progress made in attaining compliance with the final effluent limits every 12 months from effective date.

- ✓ Within 2 years of the effective date of this permit, the permittee shall attain compliance with the final effluent limits, for: total recoverable arsenic, total recoverable cadmium, total recoverable copper, total recoverable selenium, and total recoverable thallium.

Please submit progress reports to:

Missouri Department of Natural Resources:
Kansas City Regional Office
500 NE Colburn Road
Lee's Summit, MO 64086-4710

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0104540
CENTRAL MISSOURI 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: Landfill
Facility SIC Code(s): 4953
Application Date: 10/24/2013
Expiration Date: 04/23/2014
Last Inspection: 06/05/2013; out of compliance

FACILITY DESCRIPTION:
This facility is a landfill with open and closed portions. There is one leachate holding pond which is regulated by the solid waste program within the department.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW (MGD)	DESIGN FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.371 MGD	1.1 MGD	BMPs	stormwater
#002	0.118 MGD	5.5 MGD	BMPs	stormwater
#004	0.215	2.9	BMPs	stormwater
#005	0.873	2.9	BMPs	stormwater
#006	new, unknown	unknown	BMPs	stormwater

BMP = best management practices

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last five years. Only three violations were noted. All for pH being below 6.5 pH standard units. Outfalls #001 and #004 are going to be abandoned. Outfall #006 will replace them. Outfall #005 was moved from discharging at Cell #9, to discharging directly to Muddy Creek at Areas 1-4. See diagram on next page.

The latest inspection by the solid waste program (11/10/2015) indicated the waste is exposed all over the current phase of the landfill. It has not been covered with the appropriate 6 inches of soil or 12 inches of intermediate cover. At one time, a tarp was being used to cover waste which blew off in the wind. Leachate outbreaks have been identified because leachate pipes were exposed to cold air which then cracked. The facility must correct this issue because exposed waste can contaminate stormwater.

FACILITY MAP:

Part II. RECEIVING STREAM INFORMATION

RECEIVING WATER BODY'S WATER QUALITY:
The receiving stream, Muddy Creek, is part of a TMDL. Additionally, a bioassessment survey indicated the stream is impaired for the aquatic life use and the source is unknown. The Tributary to Muddy Creek is now classified as a "C" type stream. Outfalls #001, #004, #005 (moved) and #006 flow to Muddy Creek; outfalls #002 and formerly #005 flow to the newly classified stream.

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

- ✓ Applicable; Muddy Creek (WBID #0853) is listed on the 2014 Missouri 303(d) List for unknown pollutants; a stream macroinvertebrate biological assessment determined the aquatic life use was impaired.
  - o It is unknown at this time if the facility is a source of the impairment or considered to contribute to the impairment of Muddy Creek.

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; Muddy Creek (WBID #0855) is associated with the February 11, 2002 EPA Approved TMDL for biochemical oxygen demand (BOD_5),
  - o The Sedalia Central Waste Water Treatment Facility is considered to be the source of the above listed pollutant.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

- ✓ As per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

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

RECEIVING STREAMS TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#001	Muddy Creek	P	0853	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.0 mi	Coon Creek-Muddy Creek 10300103-0405
#002	Tributary to Muddy Creek (8-20-13 MUDD V1.0)	C	3960	IRR, LWW, SCR, WWH	0.0 mi	
#004	Muddy Creek	P	0853	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.0 mi	
#005	Muddy Creek	P	0853	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.0 mi	
#006	Muddy Creek	P	0853	HHP, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.0 mi	

n/a not applicable
WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip
* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the receiving streams table, above:
10 CSR 20-7.031(1)(C)1.:
AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)
10 CSR 20-7.031(1)(C)2.: Recreation in and on the water
WBC = Whole Body Contact recreation where the entire body is capable of being submerged;
WBC-A = Whole body contact recreation supporting swimming uses and has public access;
WBC-B = Whole body contact recreation supporting swimming;
SCR = Secondary Contact Recreation (like fishing, wading, and boating).
10 CSR 20-7.031(1)(C)3. to 7.:
HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;
IRR = Irrigation for use on crops utilized for human or livestock consumption;
LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection);
DWS = Drinking Water Supply;
IND = Industrial water supply
10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)
WSA = Storm- and flood-water storage and attenuation; WHP = Habitat for resident and migratory wildlife species;
WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = Hydrologic cycle maintenance.
10 CSR 20-7.031(6): GRW = Groundwater

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)].

Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

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

- ✓ Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.
    - The following parameters have had limits in the previous permit but show no reasonable potential to cause or contribute to pollution to waters of the state therefore limits have been removed and monitoring only (and/or a benchmark) has been established: iron, oil and grease, benzene, ethylbenzene, toluene
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
    - The previous permit limits for all outfalls were established in error, based on limits for process wastewaters, however, these are stormwater outfalls. This renewal establishes limits and benchmarks appropriate for stormwater discharges. The limits set forth in this permit are appropriate because stormwater is not a continuous discharge and generally monthly averages are a unreliable calculation and does not further describe the discharge properly. There will be no changes to the 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.
        - The following parameters have no water quality standards associated with the uses to be maintained on the receiving streams therefore were removed from the permit: hardness (not appropriate to stormwater discharges).
        - The following parameters were switched from limits to benchmarks as discharge monitoring reports have shown these parameters have little to no potential to cause in-stream water quality narrative condition violations: BOD_5, COD, oil and grease, settleable solids, and total suspended solids.
        - Temperature has water-quality standards but was removed because it is not an appropriate parameter for stormwater.

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 exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the technology based effluent limitations (TBEL).

Because of the fleeting nature of stormwater discharges, the department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater outfalls will only contain a maximum daily limit (MDL), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspection of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on other stormwater permits including the Environmental Protection Agency's (EPA's) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP) or water quality standards. Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in

surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

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

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74, items WQ422 through WQ449.

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

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

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. Waters that are covered under the ELG found at 40 CFR Part 445 are not authorized to be discharged under this permit. They must be collected and handled in an approved no-discharge fashion, including, but not limited to, removal to a WWTF.

The effluent limitation guidelines are as follows:

ELG Limitations		
Regulated Parameter	Daily Maximum (mg/L)	Monthly Average (mg/L)
BOD_5	140 mg/L	37 mg/L
TSS	88 mg/L	27 mg/L
Ammonia as N	10 mg/L	4.9 mg/L
α – Terpineol	33 µg/L	16 µg/L
Benzoic Acid	120 µg/L	71 µg/L
p-Cresol	25 µg/L	14 µg/L
Phenol	23 µg/L	15 µg/L
Zinc	200 µg/L	110 µg/L

To ensure compliance with this regulation, limits at least as restrictive as those found in the ELG will be applied to landfills with a history of leachate outbreaks. A schedule of compliance will not be afforded the facility on these parameters because they are technology based limitations.

FLOW BASED PERMITTING:

A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on similar climatic conditions, size of watershed, and amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc.

It is likely that sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except ammonia, which is based on a thirty day exposure). In the event that discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(3) and (4)]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above that staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis and calculate Wasteload Allocations via a mass-balance equation for effluent limit determination. However, staff may use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

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 required to monitor groundwater but reports the findings to the solid waste management program.

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 standards. 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; a RPA was not conducted for this facility. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the parameters in this permit. A RPD consists of reviewing the data for the last five years and comparing those data to the water quality standards.

SCHEDULE OF COMPLIANCE (SOC):
A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 providing certain conditions are met.
✓ Applicable; within 2 years of the effective date of this permit, the permittee shall attain compliance with the final effluent limits, for: total recoverable arsenic, total recoverable cadmium, total recoverable copper, total recoverable selenium, and total recoverable thallium.

SPILL REPORTING:
Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. http://dnr.mo.gov/env/esp/spillbill.htm

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

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

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

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

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

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

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

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

- ✓ Not applicable; this operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:
As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to release into a given stream after the department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

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

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (EPA/505/2-90-001, Section 4.5.5)

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

- Acute wasteload allocations (daily maximum limits) were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).
- Chronic wasteload allocations (monthly average limits) were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ).
- Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's *Technical Support Document For Water Quality-based Toxics Control* or TSD EPA/505/2-90-001; March 1991.
- Number of Samples "n": In accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance which should be, at a minimum, targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

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. This facility is only permitted to discharge stormwater to waters of the state. Stormwater events are typically not reproducible.

Part IV. EFFLUENT LIMITS DETERMINATION

OUTFALLS #001, #002, #004, #005, AND #006 – STORMWATER ONLY

Effluent limitations and benchmarks derived and established in the below table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

STORMWATER CONSIDERATIONS:

NPDES stormwater permits must contain conditions that ensure water quality standards are protected. This does not always require the use of numeric water-quality based effluent limitations. Under the Clean Water Act and NPDES regulations, permitting authorities may employ a variety of conditions and limitations in stormwater permits as the necessary water quality based limitations. The EPA's Technical Support Document for Water Quality Based Toxics Control (TSD) establishes a methodology for deriving numeric water quality based effluent limitations; however, it was developed primarily for continuous wastewater discharges at low flow conditions in the receiving water, not intermittent wet weather discharges during high flow conditions. After evaluating the site specific conditions of this facility, the permit writer has used best professional judgment to establish either daily maximum effluent limitations to protect water quality standards or benchmarks as deemed necessary. The limits/benchmarks are established using acute criteria wherever it is available.

See table on next page.

STORMWATER OUTFALLS SAMPLING AND REPORTING TABLE:

PARAMETER	UNIT	BASIS CODES	DAILY MAX.	MONTHLY AVG.	BENCH-MARK	PREVIOUS PERMIT LIMITATIONS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL									
FLOW	MGD	1	*	-	-	*/*	QUARTERLY	QUARTERLY	ESTIMATE
PRECIPITATION	Inches	6	*	-	-	*/*	QUARTERLY	QUARTERLY	MEASURE
CONVENTIONAL									
BOD_5	mg/L	6	**	-	45	45/30	QUARTERLY	QUARTERLY	GRAB
COD	mg/L	6	**	-	90	90/60	QUARTERLY	QUARTERLY	GRAB
OIL & GREASE	mg/L	1, 6	**	-	10	15/10	QUARTERLY	QUARTERLY	GRAB
PH	SU	1	6.5-9.0 MIN/MAX		-	6.5-9.0	QUARTERLY	QUARTERLY	GRAB
SETTLEABLE SOLIDS	ǂ	6	**	-	1.5	1.5/1.0	QUARTERLY	QUARTERLY	GRAB
TSS	mg/L	6	**	-	80	80/50	QUARTERLY	QUARTERLY	GRAB
NUTRIENTS									
AMMONIA AS N, TOTAL	mg/L	6	*	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
OTHER									
ALPHA TERPINEOL	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
BENZOIC ACID	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
CHLORIDE	mg/L	1, 6	*	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
CHLORIDE + SULFATE	mg/L	1, 6	1000	-	-	1000/*	QUARTERLY	QUARTERLY	GRAB
FLUORIDE	mg/L	6	*	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
P-CRESOL	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
PHENOL	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
SULFATE	mg/L	1, 6	*	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
BTEX									
BENZENE	µg/L	6	*	-	-	116, 58	YEARLY	YEARLY	GRAB
ETHYLBENZENE	µg/L	6	*	-	-	524, 261	YEARLY	YEARLY	GRAB
TOLUENE	µg/L	6	*	-	-	328, 163	YEARLY	YEARLY	GRAB
TOTAL XYLENE	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
METALS									
TOTAL HARDNESS	mg/L	6	REMOVED FROM PERMIT			*/*	REMOVED FROM PERMIT		
ANTIMONY, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
ARSENIC, TR	µg/L	6	33	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
BARIUM, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
BERYLLIUM, TR	µg/L	6, 10	**	-	8.2	*/*	QUARTERLY	QUARTERLY	GRAB
CADMIUM, TR	µg/L	2, 6	9.8	-	-	*/* SOC	QUARTERLY	QUARTERLY	GRAB
CHROMIUM (III), TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
CHROMIUM (VI), DISS.	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
COBALT, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
COPPER, TR	µg/L	2, 6	26	-	-	*/* SOC	QUARTERLY	QUARTERLY	GRAB
IRON, TR	µg/L	6, 10	**	-	4,000	1639/817	QUARTERLY	QUARTERLY	GRAB
LEAD, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
MANGANESE, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
MERCURY, TR	µg/L	6	*	-	-	*/*	YEARLY	YEARLY	GRAB
NICKEL, TR	µg/L	6, 10	*	-	-	*/*	YEARLY	YEARLY	GRAB
SELENIUM, TR	µg/L	6, 10	8.2	-	-	*/* SOC	QUARTERLY	QUARTERLY	GRAB
SILVER, TR	µg/L	6	11.7	-	-	*/*	QUARTERLY	QUARTERLY	GRAB
THALLIUM, TR	µg/L	6, 10	10.3	-	-	*/* SOC	QUARTERLY	QUARTERLY	GRAB
ZINC, TR	µg/L	6, 10	*	-	-	*/*	YEARLY	YEARLY	GRAB

(codes on next page)

* - Monitoring requirement only
/ - previous monitoring- daily maximum/monthly average
** - Monitoring with associated benchmark
ǂ The facility will report the minimum and maximum pH values; pH is not to be averaged
TR = Total Recoverable Fraction
Diss = dissolved
NEW = Parameter not established in previous operating permit
SOC = schedule of compliance

Basis Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment
7. TMDL or Permit in lieu of TMDL
8. WET Test Policy
9. Technology Based Effluent Limit
10. Stormwater BMP-Technology Benchmark/Limit
11. Federal ELG Limit
12. Federal MSGP Benchmark or Limit

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

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

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

CONVENTIONAL:

Biochemical Oxygen Demand (BOD_5)
Limitations from the previous state operating permit have been reassessed. See anti-backsliding provisions on page five of the fact sheet. Similar facilities performing the same activities (landfills and transfer stations) have an applied technology benchmark of **45 mg/L**. This is the same as the previous daily maximum limit.

Chemical Oxygen Demand (COD)
Limitations from the previous state operating permit have been reassessed. See anti-backsliding provisions on page five of the fact sheet. Similar facilities performing the same activities (landfills and transfer stations) have an applied technology benchmark of **90 mg/L**. This is the same as the previous daily maximum limit.

Oil & Grease
Previous permit limits establish 15 mg/L daily maximum and 10 mg/L monthly average. However, the facility reported mostly non-detections from the analytical results. It is the permit writer's best professional judgment to remove the limits and go to monitoring only with a benchmark value of **10 mg/L**. See anti-backsliding provisions on page five of the fact sheet. Effluent limitations were removed from the permit. This is a conventional pollutant found in waste disposed of in landfills and may be present in stormwater runoff. 10 mg/L is expected to be protective of non-numeric water quality criteria found in 10 CSR 20-7.031(4) applicable to all waters of the state at all times, including mixing zones. The facility is not allowed to discharge stormwater with petroleum sheen.

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. Continued from previous permit; quarterly sampling continued.

Settleable Solids (SS)
Effluent limitations from the previous state operating permit have been reassessed. See anti-backsliding provisions on page five of the fact sheet. Previous permit limits of 1.5 mL/L/hour daily maximum and 1.0 mL/L/hour monthly average are typical and achievable. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at **1.5 mg/L**; the monthly average will be removed. There is no water quality standard for SS; however, sediment discharges can

negatively impact aquatic life 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. This value falls within the range of values implemented in other permits that have similar industrial activities. Continued from previous permit; quarterly sampling continued.

Total Suspended Solids (TSS)

Effluent limitations from the previous state operating permit have been reassessed. See anti-backsliding provisions on page five of the fact sheet. Previous permit limits of 80 mg/L daily maximum and 50 mg/L monthly average are typical and achievable. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. A benchmark value will be implemented for this parameter. The benchmark value will be set at **80 mg/L**. This value is the daily maximum value from the previous permit. Quarterly sampling continued from previous permit.

METALS:

Effluent benchmarks for total recoverable metals were developed using methods and procedures outlined in *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007). General warm-water habitat criteria apply (WWH) designated as AQL in 10 CSR 20-7.031 Table A; and a water hardness of 193 mg/L for stormwater is used in the conversion below. 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). Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 Conversion factors for Cd and Pb are hardness dependent. N/A = not applicable.

METAL	CONVERSION FACTORS	
	ACUTE	CHRONIC
Aluminum	N/A	N/A
Antimony	N/A	N/A
Arsenic	1	1
Beryllium	N/A	N/A
Cadmium	0.916	0.881
Chromium III	0.316	0.860
Chromium VI	N/A	N/A
Copper	0.960	0.960
Iron	N/A	N/A
Lead	0.695	0.695
Mercury	0.85	N/A
Nickel	0.998	0.997
Selenium	N/A	N/A
Silver	0.850	N/A
Thallium	N/A	N/A
Zinc	0.980	0.980

Total Hardness as $CaCO_3$

Removed from permit. In order to base decisions to be protective of water quality standards, the department will use the default stormwater hardness value of 193 mg/L to assess performance history. Outfall stormwater hardness is no longer necessary. It is the permit writer's best professional judgment to remove this parameter from the permit.

Antimony, Total Recoverable

The DMR data show values of 20 µg/L for all outfalls, which are below the water quality standard for the protection of human health of 4,300 µg/L. Yearly monitoring continued.

Arsenic, Total Recoverable

Previous permit assigned once per year monitoring only. However, a sufficiently sensitive test method was not used and the facility reported the parameter just at the chronic protection of aquatic life standard of 20 µg/L; the permit writer cannot determine if the facility's stormwater is at or below the protection of aquatic life standard. Quarterly monitoring required; increased from previous permit.

AQL WQS: 20 µg/L
LTAc: 20 * 0.527 = 10.54
MDL: 10.54 * 3.11 = 32.77 = **33 µg/L**

The facility has not demonstrated they can meet the new limit. A two year SOC is allowed. Monitoring upgraded from yearly to quarterly.

Barium, Total Recoverable
The DMR data shows values of 49 - 150 µg/L for all outfalls. Yearly monitoring continued.

Beryllium, Total Recoverable
Previous permit assigned once per year monitoring only. However, a sufficiently sensitive test method was not used and the facility reported the parameter just at the protection of aquatic life standard of 5 µg/L; the permit writer cannot determine if the facility's stormwater is at or below the protection of aquatic life standard. There is no partitioning between the total and dissolved fraction for this parameter. This calculation involves using a chronic standard to calculate the acute benchmark using methods and procedures outlined in the *Technical Support Document For Water Quality-based Toxic Controls* (EPA/505/2-90-001). Quarterly monitoring required; increased from yearly in previous permit.

Chronic AQL WQS:	5	[no acute standard]
LTA_c:	5 (0.527) = 2.637	[CV = 0.6, 99th Percentile]
MDL:	2.637 (3.11) = 8.213	[CV = 0.6, 99th Percentile]
Benchmark:	**8.2 µg/L**	

Cadmium, Total Recoverable
The facility reported 2 to 20 µg/L for this parameter at the stormwater outfalls. The facility will receive a benchmark for this parameter as calculated below. Quarterly monitoring required; increased from previous permit.

Acute AQL WQS:	$e^{(1.0166 * \ln 193 - 3.062490)} * (1.136672 - \ln 193 * 0.041838) = 9.012$	[at Hardness 193]
Acute TR WQS:	9.012 ÷ 0.9165 = 9.8332	[Total Recoverable Conversion]
Acute WLA:	C_e = 9.8332	[WLA=WQS when no mixing]
AML & MDL:	**9.8 µg/L**	

The facility cannot currently meet the new limits. A two year SOC is allowed. Monitoring upgraded from yearly to quarterly.

Chromium (III), Total Recoverable
The DMR data show values of 9 - 10 µg/L for all outfalls, which are below the water quality standard for the protection of aquatic life of 3,090 µg/L. Yearly monitoring continued from previous permit.

Chromium (VI), Dissolved
The DMR data shows values of 5 µg/L for all outfalls, which are below the water quality standard for the protection of aquatic life of 15 µg/L. Yearly sampling continued.

Cobalt, Total Recoverable.
The DMR data shows values of 5 µg/L for all outfalls, which are below the water quality standard for the protection of livestock and wildlife watering of 1,000 µg/L. Yearly sampling continued.

Copper, Total Recoverable
The facility reported 10 to 30 µg/L for this parameter at the stormwater outfalls. The facility will receive a limit for this parameter as calculated below.

Acute AQL WQS:	$e^{(0.9422 * \ln 193 - 1.7003)} * 0.960 = 24.963$	[at Hardness 193]
Acute TR WQS:	24.963 ÷ 0.96 = 26.003	[Total Recoverable Conversion]
Acute WLA:	C_e = 26.003	[WLA=WQS when no mixing]
MDL & AML:	**26 µg/L**	

The facility is not be able to meet these new limits. The facility will be allowed a two year schedule of compliance for this parameter. Quarterly monitoring and reporting upgraded from yearly.

Iron, Total Recoverable
Previous permit limits of 1639 µg/L daily maximum and 817 µg/L monthly average are no longer needed. The facility has shown through sampling the facility discharges iron. Maximum value reported during the last five years was 750 µg/L. Because this is a stormwater only permit, the permit writer has determined iron shall be limited through benchmarks.

The only water quality standard Missouri has for iron is the chronic AQL WQS = 1,000 µg/L. Current department policy implements acute water quality standards as a benchmark or effluent limit when it is available and in some cases the chronic criterion is applied if feasible and necessary to protect designated uses. In the case of iron, the state has no acute criteria. On behalf of BFI, Geosyntec submitted a review of pertinent literature and other state's regulations to justify the implementation of an alternative iron target. A summary of that review follows.

Tidball et al. (1984) conducted an element analysis of Missouri's agricultural soils and found that iron was between 0.7% and 5.5% of soil content in Missouri. There is a strong correlation between the concentration of TSS and iron in landfill stormwater discharges. It is common for stormwater discharges to comply with stringent TSS limitations while still exceeding total recoverable iron limitations. If the native soils or soils being applied as cover at a landfill are in the upper range of natural iron soil content of 5.5%, the discharge can be expected to contain approximately 4 mg/L of iron when discharging 50 mg/L of TSS. Further reduction of TSS and iron may require mechanical treatment or land application of the stormwater.

Only twenty states have adopted any iron criterion. Many of those standards are based on the 1.0 mg/L chronic criterion that was recommended by EPA in the 1976 "Red Book" (EPA 1976). In the Red Book, EPA reviewed studies that showed aquatic life effects over a wide range of iron concentrations and justified the 1.0 mg/L chronic value based on a Colorado stream study that observed the presence of trout and other fish increased when iron concentrations were below 1.0 mg/L. Of the 20 states with iron criteria, Kentucky, West Virginia and Montana have varied from the EPA recommended criteria. Ohio EPA removed iron criteria in 2004 and no longer issues iron limits in NPDES permits.

Toxicity studies cited by the Electric Power Resources Institute's (EPRI) 2004 technical report "Water Quality Criteria Development for Iron" and EPA's ECOTOX database (ECOTOX 2014) indicate that the geometric mean acute values (GMAV) when exposed to iron is 12.6 mg/L for *Ceriodaphnia dubia* and 18.7 mg/L for *Pimephales promelas*. The University of Kentucky also conducted an iron toxicity study to support the establishment of chronic and acute state water quality standards (Birge 1985). Regarding acute iron toxicity, the study concluded that for protection of aquatic life, the maximum iron concentration should not exceed 4 mg/L and the concentration may be between 1 mg/L and 4 mg/L for up to 96 hours. Kentucky is the only state to have developed an acute iron criterion.

EPRI also calculated GMAVs for rainbow trout, 18.3 mg/L and brook trout, 0.917 mg/L. Neither of these coldwater fishes is native to Missouri water ways. Rainbow trout are stocked in certain fisheries, but the permit writer is unaware of any brook trout populations in Missouri. The GMAV for brook trout indicates that alternative iron targets for stormwater may not be appropriate for cold water fisheries.

The permit writer reviewed available iron data for hydrologic unit 07110001. Illinois Environmental Protection Agency collected 47 total recoverable iron samples in the Mississippi River at Quincy, IL from 2000-2013. Quincy is approximately 5 river miles downstream of discharges from the lakes of Wakonda State Park enter the Mississippi River. The average iron concentration found was 2.2 mg/L with a range of 0.92 mg/L to 15.6 mg/L. This data set seems to support the determination that application of a 1 mg/L chronic standard to the discharge is more stringent than natural conditions for this geographic area.

40 CFR 122.44(k) indicates that a BMP-based approach is appropriate where numeric effluent limitations are infeasible. In accordance with the department's current stormwater permitting strategy and EPA stormwater permitting guidance, it is the permit writer's best professional judgment that an iron benchmark of 4 mg/L is both feasible and protective of water quality at this facility. This benchmark is accompanied by a TSS limit of 50 mg/L, combined; it is the permit writer's best professional judgment that all numeric and general criteria are protected. This benchmark may not be acceptable in a coldwater fishery where trout species could be affected. Additionally, the permit requires the permittee to collect site specific data to verify that the 4 mg/L benchmark is sufficiently protecting water quality.

Quarterly monitoring and reporting continued from previous permit.
Benchmark: 4,000 µg/L

- Birge, W.J., Black, J.A., Westerman, A.G., Short, T.M., Taylor, S.B. Bruser, D.M. and Wallingford E.D. 1985. *Recommendations on Numerical Values for Regulating Iron and Chloride Concentrations for the Purpose of Protecting Warmwater Species of Aquatic Life in the Commonwealth of Kentucky.* MOU 5429.
- ECOTOX Release 4.0 U.S. Environmental Protection Agency, accessed December 2014. http://cfpub.epa.gov/ecotox/
- Electric Power Resources Institute (EPRI). 2004. *Water Quality Criteria Development for Iron.*
- Tidball, Ronald, R. 1984. *Geography of Soil Geochemistry of Missouri Agricultural Soils.* Geological Survey Professional Paper 9 54 -H, I.
- USEPA. 1976. *Quality Criteria for Water*. EPA PB-263 943.

Lead, Total Recoverable.
The DMR data shows values of 10 µg/L for all outfalls, yearly monitoring continued.

Manganese, Total Recoverable
Previous permit required yearly monitoring, because this landfill is currently operating, yearly monitoring is continued.

Mercury, Total Recoverable
The DMR data shows values of 0.2 µg/L for all outfalls, which are below the acute water quality standard for the protection of aquatic life of 2.4 µg/L. Yearly monitoring continued from previous permit.

Nickel, Total Recoverable
The DMR data shows values of 10 to 22 µg/L for all outfalls, which are below the acute water quality standard for the protection of aquatic life of 820 µg/L adjusted for hardness. Yearly monitoring continued from previous permit.

Selenium, Total Recoverable
The facility reported 1 to 20 µg/L for this parameter at the stormwater outfalls. The facility will receive a limit for this parameter as calculated below.

Chronic AQL WQS:	5	[no acute standard]
LTA_c:	5 (0.527) = 2.637	[CV = 0.6, 99th Percentile]
MDL:	2.637 (3.11) = 8.213	[CV = 0.6, 99th Percentile]
MDL and AML:	**8.2 µg/L**	

The facility cannot currently meet these limits. A two year schedule of compliance is afforded. The facility must use a sufficiently sensitive method to determine the true concentration of the metal in the stormwater. The method must be able to detect the parameter at or above 8 µg/L. Yearly monitoring upgraded to quarterly monitoring.

Silver, Total Recoverable
The facility reported 5 to 10 µg/L for this parameter at the stormwater outfalls. Because of the proximity of the reported values to the WQS, the facility will receive a limit for this parameter as calculated below.

Acute AQL:	$e^{1.72 * \ln 193 - 6.588144} * 0.850 = 10$ µg/L	[at Hardness 193]
Acute TR WQS:	10µ/L ÷ 0.85 = 11.7µg/L	[Total Recoverable Conversion]
MDL and AML:	**11.7 µg/L**	

The facility is able to meet the new limits therefore no SOC is allowed; yearly monitoring upgraded to quarterly monitoring.

Thallium, Total Recoverable
Previous permit limits were monitoring only. The facility reported 10 to 12 µg/L for this parameter at the stormwater outfalls. The facility will receive a limit for this parameter as calculated below. Thallium's water quality limits are based on protection of human health (HHP) which is a use required to be protected for Muddy Creek. The chronic standard is 6.3 µg/L. The limits below were calculated using section 5.4.4 in EPA/505/2-90-001. When calculating limits for HHP, mixing is not allowed.

Chronic HHP WQS:	6.3
AML = WLA:	6.3

Standard CV = 0.6; standard n=4; 99th percentile; therefore the multiplier for human health protection is 1.64

MDL	6.3 * 1.64 = 10.332
MDL & AML:	**10.3 µg/L**

The facility cannot currently meet these limits, a two year schedule of compliance will be allowed. Yearly monitoring upgraded to quarterly monitoring.

Zinc, Total Recoverable.
The DMR data shows values of 10 - 17 µg/L for all outfalls, which are below the acute water quality standard for the protection of aquatic life of 208 µg/L adjusted for stormwater hardness. Yearly monitoring continued.

NUTRIENTS:

Ammonia, as Nitrogen
Monitoring only. The previous permit required quarterly monitoring. There were no exceedances of in-stream water quality standards in the previous permit cycle. After review of five years of DMR data, it is the professional judgment of the permit writer this facility is not in danger of causing a water quality issue due to ammonia. Ammonia is a primary component of leachate and is found in the ELG for this industry; therefore, the permit writer feels this parameter is important to continue monitoring at this site. After assessing technology based limits (TBELs) found in the ELG, it is in the best professional judgment of the permit writer to require monitoring only. The (TBELs) for this industry are based off treatment processes used on raw leachate before discharge. These treatment mechanisms are not commonly used to treat stormwater, and are not in place as BMPs at this facility. Since DMRs do not indicate a water quality issue, monitoring only is appropriate for this parameter.

OTHER:

Alpha Terpineol
The facility reported 9.4 to 11 µg/L at the outfalls. There is no indicator or surrogate parameter for α-terpineol. The ELG development document indicates elevated α-terpineol levels indicate a decrease in the aerobic biological treatment mechanism for leachate. Yearly monitoring continued.

Benzoic Acid
The ELG for landfills has determined this parameter is a constituent of concern. Yearly monitoring required to determine if leachate is being mixed with stormwater.

Chlorides
Monitoring only requirement. The permit writer used best professional judgment to maintain this parameter in the permit in order to monitor runoff and erosion of soils from the site, which encompasses mine spoils containing high levels of salts.

Fluoride
The DMR data shows values ranging from 0.25 to 0.461 mg/L for all outfalls and are well below the AQL WQS of 4 mg/L. However, other landfills have demonstrated landfills as a point source are one of the few non-natural sources of fluoride, quarterly monitoring is still required.

p-Cresol
The facility reported non-detects for this parameter. Yearly monitoring continued.

Phenol
Missouri water quality standards for this parameter is 10,200 µg/L acute, and 2,560 µg/L chronic. The ELG for landfills does not apply to clean stormwater. The facility reported 9.4 to 11 µg/L at all outfalls. Yearly monitoring continued.

Sulfate
Monitoring only requirement. The permit writer used best professional judgment to maintain this parameter in the permit in order to monitor runoff and erosion of soils from the site, which encompasses mine spoils containing high levels of salts.

Sulfate + Chlorides
The effluent limitation of 1,000 mg/L daily maximum was reviewed. The previous permit limit was based on chronic water quality standards and was applied as the CMC. The permit writer used best professional judgment to maintain this parameter in the permit in order to monitor runoff and erosion of soils from the site, which may have high levels of salts. Quarterly sampling and reporting required.

BTEX:

Benzene
Previous permit limits 116 µg/L daily maximum, 50 µg/L monthly average. The DMR data shows values of 0.2 - 2 µg/L for all outfalls, which are below the water quality standard for the protection of human health of 71 µg/L and significantly below the previous permitted limits. Once yearly monitoring continued, limits removed.

Ethylbenzene
Previous permit limits 524 µg/L daily maximum, 261 µg/L monthly average. The DMR data shows values of 2 -20 µg/L for all outfalls, which are below the water quality standard for the protection of aquatic life of 320 µg/L and significantly below the previous permitted limits. Once yearly monitoring continued, limits removed.

Toluene
Previous permit limits 328 µg/L daily maximum, 163 µg/L monthly average. The DMR data shows values of 2 mg/L for all outfalls, which are below the water quality standard for the protection of human health of 200,000 µg/L and significantly below the previous permitted limits. Once yearly monitoring continued, limits removed.

Total Xylene
The DMR data shows values 5 µg/L for all outfalls. There are no water quality standards associated with any of the use designations listed for any of the receiving streams. This parameter is not a pollutant of concern in stormwater runoff from this site. Once yearly monitoring continued, limits removed.

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

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was not 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. The previous permit established yearly sampling for several parameters. However, most of those parameters were not detected in the stormwater coming from the site and were therefore removed. All remaining parameters have been changed to quarterly sampling. Some parameters were reduced or kept at yearly monitoring because they showed little reasonable potential to exceed water quality standards although complete removal of the parameters is not warranted. The permit writer has followed the USEPA Robert Periscape memorandum and guidance dated April 19, 1996 to decrease the sampling frequency to the minimum allowed under 40 CFR 122.44(i)(2).

SAMPLING TYPE JUSTIFICATION:
Sampling type was continued from the previous permit. 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.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:
Please review Standard Conditions Part 1, section A, number 4. 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. 40 CFR 136 lists the approved methods accepted by the department. Table A at 10 CFR 20-7.031 shows water quality standards. This facility is not allowed mixing so the limits allowed in Table A are the limits which would be applied to the facility.

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 the end of the fourth quarter, 2020.*

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. http://dnr.mo.gov/env/wpp/permits/pn/index.html Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☒ - The Public Notice period for this operating permit was from 8/13/2016 to 9/13/2016. No comments were received. The permit writer changed “issued” to “effective” in section D. Schedule of Compliance, checkmark #2. The posted effective permit does not include the date of issuance thereby making “12 months from issuance” difficult to track for the permittee or others interpreting the permit. This change does not affect the provisions of the permit; an additional public notice is not required.

DATE OF FACT SHEET: SEPTEMBER 16, 2016

COMPLETED BY:

PAM HACKLER, ENVIRONMENTAL SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 526-3386
pam.hackler@dnr.mo.gov

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

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

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

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

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

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

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

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

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

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

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

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

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

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

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

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

6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

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

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

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

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

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

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

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

3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

5. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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

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

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

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

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

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

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

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

Genesis Solid Waste Group, Inc.

514 Earth City Expressway-Suite 314, St. Louis, MO. 63045
Phone 314-739-0906 ♦ Fax 314-739-0910 ♦ E-mail eshepard@genesiswastegroup.com

October 22, 2013

OCT 24 2013

Missouri Department of Natural Resources
Water Protection Program
1101 Riverside Drive
Jefferson City, Missouri 65101

RE: Operating Permit Renewal for Central Missouri Landfill; Permit MO-0104540

Genesis Solid Waste Group, Inc., on behalf of Waste Corporation of Missouri is submitting this permit renewal application for Central Missouri Landfill, located in Sedalia, Missouri. The submittal includes Forms A, C and D along with their required attachments.

If you have any questions, please don't hesitate to contact me at 314-739-0906.

Sincerely,
Genesis Solid Waste Group, Inc.

Edward Shepard, Jr., P.E.

CC: Ethan Shackelford (WCA)
Dave Sellhorst (WCA-CML)

Attachments

AP16782

MISSOURI DEPARTMENT OF NATURAL RESOURCES OCT 24 2013
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 10/24/13	FEE SUBMITTED $ 53

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- 0104540 — Expiration Date 04/23/2014
- ☐ An operating permit modification: permit # MO-_____ — Reason: _____

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

2. FACILITY

NAME		TELEPHONE WITH AREA CODE
Central Missouri Landfill		(660) 826-9133
		FAX (660) 826-5499
ADDRESS (PHYSICAL)	CITY	STATE / ZIP CODE
24461 Oak Grove Lane	Sedalia	MO 65301

3. OWNER

NAME	E-MAIL ADDRESS	TELEPHONE WITH AREA CODE
Waste Corporation of Missouri, Inc.-Ethan Shackelford	eshackelford@wcamerica.com	(417) 426-5001
		FAX (417) 426-5010
ADDRESS (MAILING)	CITY	STATE / ZIP CODE
33924 Olathe Dr.	Lebanon	MO 65536

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

4. CONTINUING AUTHORITY

NAME		TELEPHONE WITH AREA CODE
Waste Corporation of Missouri, Inc.-Ethan Shackelford		(417) 426-5001
		FAX (417) 426-5010
ADDRESS (MAILING)	CITY	STATE / ZIP CODE
33924 Olathe Dr.	Lebanon	MO 65536

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE
Waste Corporation of Missouri, Inc.-Dave Sellhorst	N/A	(660) 826-9133
		FAX (660) 826-5499
ADDRESS (MAILING)	CITY	STATE / ZIP CODE
24461 Oak Grove Lane	Sedalia	MO 65301

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE WITH AREA CODE
Ethan Shackelford	Region 1 Engineer	(417) 426-5001
		FAX (417) 426-5010

7. ADDITIONAL FACILITY INFORMATION

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

001 SW ¼ NW ¼ Sec 36 T 46N R 22W Pettis County
UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SE ¼ NE ¼ Sec 36 T 46N R 22W Pettis County
UTM Coordinates Easting (X): _____ Northing (Y): _____

003 SW ¼ NE ¼ Sec 36 T 46N R 22W Pettis County
UTM Coordinates Easting (X): _____ Northing (Y): _____

004 NE ¼ NW ¼ Sec 36 T 46N R 22W Pettis County
UTM Coordinates Easting (X): _____ Northing (Y): _____ See Attached Sheet for Outfall #005

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

001 – SIC 4953 and NAICS _____ 002 – SIC _____ and NAICS _____
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? If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).	YES ☑	NO ☐
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES ☐	NO ☑
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES ☐	NO ☑
D.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
E.	Is wastewater land applied? If yes, complete Form I.	YES ☐	NO ☑
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES ☐	NO ☑

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

NAME			
See Attached Sheet			
ADDRESS	**CITY**	**STATE**	**ZIP CODE**

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE WITH AREA CODE
Ethan Shackelford, Region I Engineer	(417) 426-5001
SIGNATURE	**DATE SIGNED**
Ethan Shackelford	10/22/13

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:

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

Attachment for 7.01 Legal Description of Outfall #005
Central Missouri Landfill
NPDES Form A

Legal Description of Outfall

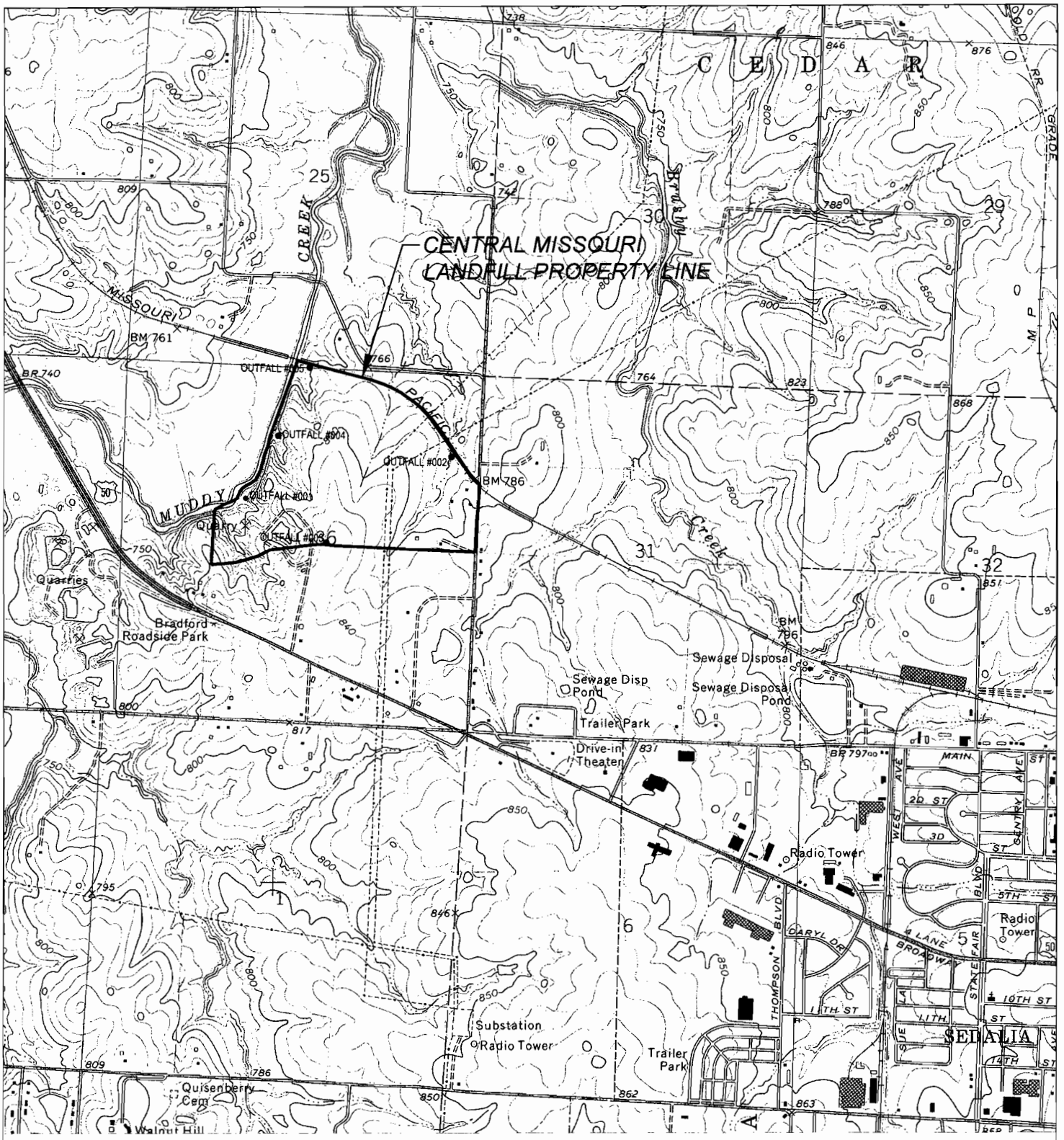
#005 NW 1/4, NE 1/4, Sec. 36, T46N, R22W, Pettis County

See attached drawing for location

Attachment for 9.00 Downstream Landowners
Central Missouri Landfill
NPDES Form A

Outfall 001	Howard Farms P.O. Box 1584 Sedalia, MO. 65302
Outfall 002	Howard Farms P.O. Box 1584 Sedalia, MO. 65302
Outfall 003	Howard Farms P.O. Box 1584 Sedalia, MO. 65302
Outfall 004	Howard Farms P.O. Box 1584 Sedalia, MO. 65302
Outfall 005	MFA Incorporated 201 Ray Young Dr. Columbia, MO. 65201

See attached drawing for locations



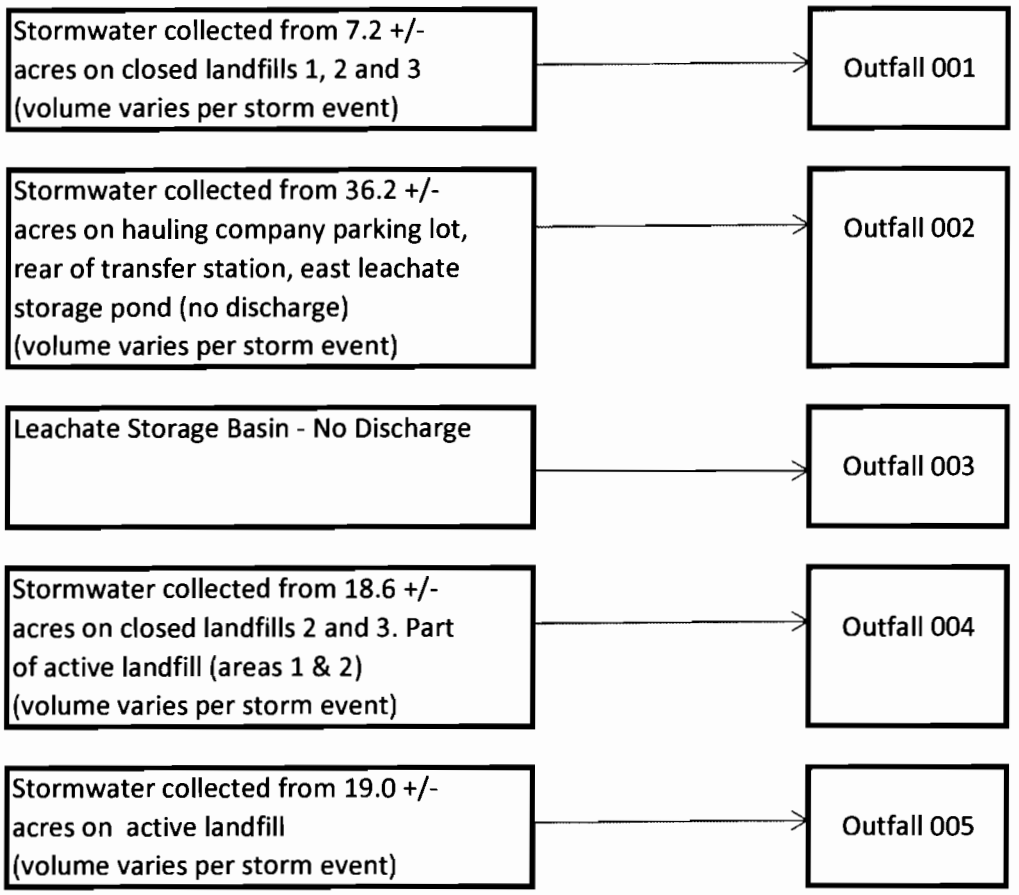
SOURCE: USGS SERIES TOPOGRAPHIC MAP SEDALIA WEST, MO 1973

N

0' 2000' 4000'

Prepared for:	Prepared by:		
WASTE CORP OF MISSOURI CENTRAL MISSOURI LANDFILL SEDALIA, MISSOURI	G · E · N · E · S · I · S Solid Waste Group, Inc. 514 EARTH CITY EXPRESSWAY, SUITE 314 EARTH CITY, MO 63045	DESIGNED BY:	EAS
		DRAWN BY:	CMB
		CHECKED BY:	EAS
		DATE: 10/18/13	
		-	

Central Missouri Landfill
Stormwater Management
Flow Diagram



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

OCT 24 2013

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

Central Missouri Landfill

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

MO-0104540

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

C. THIRD D. FOURTH

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) SE 1/4 NW 1/4 SEC 36 T 46N R 22W Pettis COUNTY

Outfall #001	SE 1/4	NW 1/4	SEC 36	T46N	R22W	Pettis
Outfall #002	SE 1/4	NE 1/4	SEC 36	T46N	R22W	Pettis
Outfall #003	SW 1/4	NE 1/4	SEC 36	T46N	R22W	Pettis
Outfall #004	NE 1/4	NW 1/4	SEC 36	T46N	R22W	Pettis
Outfall #005	NW 1/4	NE 1/4	SEC 36	T46N	R22W	Pettis

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
Outfall #001	Muddy Creek
Outfall #002	Unnamed Tributary to Muddy Creek
Outfall #003	Muddy Creek
Outfall #004	Muddy Creek

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Permitted Municipal Solid Waste Landfill. Currently the landfill is collecting and disposing of water under an NPDES Permit, MO-0104540. Outfalls 001, 002, 004 and 005 are the primary discharge points for precipitation run-off from this landfill. Outfall 003 has no discharge (aerated leachate storage basin, leachate is hauled to permitted POTW).

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

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

Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
001	Stormwater Run-off through sedimentatio pond	Varies with Rainfall (0.7 cfs)	Discharge to Surface Water	1U
002	Stormwater Run-Off through sedimentation po	Varies with Rainfall (0.7 cfs)	Discharge to Surface Water	1U
003	Leachate Storage Pond no disr	No Discharge	No Discahrge	1U
004	Stormwater Run-off through se	Varies with Rainfall (0.7 cfs)	Discharge to Surface Water	1U
005	Stormwater Run-off through se	Varies with Rainfall (0.7 cfs)	Discharge to Surface	1U

2.40 CONTINUED

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

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

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				C. DURATION *(in days)*
				A. FLOW RATE *(in mgd)*		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK *(specify average)*	B. MONTHS PER YEAR *(specify average)*	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

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

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

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

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

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

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

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

☐ **YES** *(COMPLETE THE FOLLOWING TABLE)* ☑ **NO** *(GO TO 3.00)*

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

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS *(OR OTHER ENVIRONMENTAL PROJECTS 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.**

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

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

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

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Outfall 001 - N/A	No Table B Pollutants Believed Present		
Outfall 002 - N/A	No Table B Pollutants Believed Present		
Outfall 003 - N/A	No Table B Pollutants Believed Present		
Outfall 004 - N/A	No Table B Pollutants Believed Present		
Outfall 005 - N/A	No Table B Pollutants Believed Present		

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)*

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)	TELEPHONE NUMBER WITH AREA CODE
Ethan Shackelford, Region I, Engineer	(417) 426-5001
SIGNATURE (SEE INSTRUCTIONS)	**DATE SIGNED**
Ethan Shackelford	10/22/17

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. 001

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

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	8.2	28.4			5.1	17.7	4	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	29	100.3			16.5	57.1	4	mg/l	lb/day			
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)	8.8	30.5			4.9	17.0	4	mg/l	lb/day			
E. Ammonia *(as N)*	2.4	8.3			1.12	3.9	1	mg/l	lb/day			
F. Flow	VALUE Varies with rainfall (0.7 cfs max)		VALUE		VALUE			cfs		VALUE		
G. Temperature *(winter)*	VALUE 3.5		VALUE		VALUE 5.7		2	°C		VALUE		
H. Temperature *(summer)*	VALUE 29.3		VALUE		VALUE 24.0		2	°C		VALUE		
I. pH	MINIMUM 6.97	MAXIMUM 8.4	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)*		
	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		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Bromide (24959-67-9)		X												
B. Chlorine Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate—Nitrate *(as N)*		X												

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. 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	
G. Nitrogen Total Organic *(as N)*		X												
H. Oil and Grease	X		<5	<110			<5	<110	4	mg/l	lb/day			
I. Phosphorus *(as P)* Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		400	1384			353	1221	4	mg/l	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)	X		0.12	0.42			0.12	0.42	1	mg/l	lb/day			
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		0.32	1.1			0.21	0.73	4	mg/l	lb/day			
S. Magnesium Total (7439-95-4)		X												
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X												
V. Tin Total (7440-31-5)		X												
W. Titanium Total (7440-32-6)		X												

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

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)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	4.8	16.6			4.2	14.5	4	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	16.0	50.3			9.0	31.1	4	mg/l	lb/day			
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)	8.0	27.7			5.1	17.7	4	mg/l	lb/day			
E. Ammonia *(as N)*	<0.10	0.4			<0.10	0.4	3	mg/l	lb/day			
F. Flow	VALUE Varies with rainfall (0.7 cfs max)		VALUE		VALUE			cfs		VALUE		
G. Temperature *(winter)*	VALUE 9.0		VALUE		VALUE 8.8		2	°C		VALUE		
H. Temperature *(summer)*	VALUE 22.9		VALUE		VALUE 21.6		2	°C		VALUE		
I. pH	MINIMUM 7.76	MAXIMUM 9.2	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)*		
	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		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Bromide (24959-67-9)		X												
B. Chlorine Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate—Nitrate *(as N)*		X												

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. 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	
G. Nitrogen Total Organic *(as N)*		X												
H. Oil and Grease	X		<5	<110			<5	<110	4	mg/l	lb/day			
I. Phosphorus *(as P)* Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		720	2491			423	1464	4	mg/l	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)	X		0.11	0.38			0.11	0.38	1	mg/l	lb/day			
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		0.27	0.94			0.18	0.63	4	mg/l	lb/day			
S. Magnesium Total (7439-95-4)		X												
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X												
V. Tin Total (7440-31-5)		X												
W. Titanium Total (7440-32-6)		X												

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

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. 004

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

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	6.4	22.15			3.9	13.5	4	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	28.0	96.9			16.5	57.1	4	mg/l	lb/day			
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)	71.0	245.7			23.3	80.6	4	mg/l	lb/day			
E. Ammonia *(as N)*	<0.20	0.7			<0.14	0.5	3	mg/l	lb/day			
F. Flow	VALUE Varies with rainfall (0.7 cfs max)		VALUE		VALUE			cfs		VALUE		
G. Temperature *(winter)*	VALUE 9.0		VALUE		VALUE 8.6		2	°C		VALUE		
H. Temperature *(summer)*	VALUE 28.8		VALUE		VALUE 28.8		1	°C		VALUE		
I. pH	MINIMUM 8.02	MAXIMUM 9.2	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)*		
	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		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Bromide (24959-67-9)		X												
B. Chlorine Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate—Nitrate *(as N)*		X												

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. 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	
G. Nitrogen Total Organic *(as N)*		X												
H. Oil and Grease	X		<5	<110			<5	<110	3	mg/l	lb/day			
I. Phosphorus *(as P)* Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		330	1142			205	709	4	mg/l	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)	X		0.18	0.63			0.18	0.63	1	mg/l	lb/day			
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		0.47	1.63			0.22	0.77	4	mg/l	lb/day			
S. Magnesium Total (7439-95-4)		X												
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X												
V. Tin Total (7440-31-5)		X												
W. Titanium Total (7440-32-6)		X												

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

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. 005

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

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	15.0	51.9			6.8	23.5	4	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	55.0	190.3			32.0	110.7	4	mg/l	lb/day			
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)	15.0	51.9			7.9	27.3	4	mg/l	lb/day			
E. Ammonia *(as N)*	1.9	6.6			0.58	2.01	4	mg/l	lb/day			
F. Flow	VALUE Varies with rainfall (0.7 cfs max)		VALUE		VALUE			cfs		VALUE		
G. Temperature *(winter)*	VALUE 8.0		VALUE		VALUE 6.8		2	°C		VALUE		
H. Temperature *(summer)*	VALUE 28.9		VALUE		VALUE 23.4		2	°C		VALUE		
I. pH	MINIMUM 7.15	MAXIMUM 8.6	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)*		
	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		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Bromide (24959-67-9)		X												
B. Chlorine Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate—Nitrate *(as N)*		X												

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. 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	
G. Nitrogen Total Organic *(as N)*		X												
H. Oil and Grease	X		<5	<110			<5	<110	4	mg/l	lb/day			
I. Phosphorus *(as P)* Total (7723-14-0)		X												
J. Sulfate *(as SO^4)* (14808-79-8)	X		660	2284			593	2052	4	mg/l	lb/day			
K. Sulfide *(as S)*		X												
L. Sulfite (as SO^3) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)	X		0.082	0.29			0.082	0.29	1	mg/l	lb/day			
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		0.35	11.72			0.23	0.80	4	mg/l	lb/day			
S. Magnesium Total (7439-95-4)		X												
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X												
V. Tin Total (7440-31-5)		X												
W. Titanium Total (7440-32-6)		X												

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

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

OCT 24 2013

FORM – APPLICATION FOR DISCHARGE PERMIT
PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Central Missouri Landfill

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

MO - 0104540

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

INDUSTRY CATEGORY

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

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	001

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	—	—	✓												
2M. Beryllium, Total (7440-41-7)	—	—	✓												
3M. Magnesium Total (7439-95-4)		—	✓												
4M. Molybdenum Total (7439-98-7)	—	—	✓												
5M. Tin Total (7440-31-5)	—	—	✓												
6M. Titanium Total (7440-32-6)	—	—	✓												
7M. Mercury, Total (7439-97-6)		—	✓												
8M. Selenium, Total (7782-49-2)			✓												
9M. Thallium, Total (7440-28-0)			✓												
10M. Phenols, Total			✓												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)		—	✓	**DESCRIBE RESULTS**											

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT						D. NO. OF ANALYSES	4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING RE-QUIRED	B. BELIEVED PRESENT	C. 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	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			✓												
2V. Acrylonitrile (107-13-1)			✓												
3V. Benzene (71-43-2)			✓												
4V. Bis (*Chloromethyl*) Ether (542-88-1)			✓												
5V. Bromoform (75-25-2)			✓												
6V. Carbon Tetrachloride (56-23-5)			✓												
7V. Chlorobenzene (108-90-7)			✓												
8V. Chlorodibromomethane (124-48-1)			✓												
9V. Chloroethane (75-00-3)			✓												
10V. 2-Chloroethylvinyl Ether (110-75-8)			✓												
11V. Chloroform (67-66-3)			✓												
12V. Dichlorobromomethane (75-27-4)			✓												
13V. Dichloro-difluoromethane (75-71-8)			✓												
14V. 1,1 – Dichloroethane (75-34-3)			✓												
15V. 1,2 – Dichloroethane (107-06-2)			✓												
16V. 1,1 – Dichloroethylene (75-35-4)			✓												
17V. 1,2 – Dichloropropane (78-87-5)			✓												
18V. 1,2 – Dichloropropylene (542-75-6)			✓												
19V. Ethylbenzene (100-41-4)			✓												
20V. Methyl Bromide (74-83-9)			✓												
21V. Methyl Chloride (74-87-3)			✓												

CONTINUED FROM THE FRONT

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	001

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			✓												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)			✓												
24V. Tetrachloroethylene (127-18-4)			✓												
25V. Toluene (108-88-3)			✓												
26V. 1,2 – Trans Dichloroethylene (156-60-5)			✓												
27V. 1,1,1 – Tri – chloroethane (71-55-6)			✓												
28V. 1,1,2 – Tri-chloroethane (79-00-5)			✓												
29V. Trichloro – ethylene (79-01-6)			✓												
30V. Trichloro – fluoromethane (75-69-4)			✓												
31V. Vinyl Chloride (75-01-4)			✓												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)			✓												
2A. 2,4 – Dichloro – phenol (120-83-2)			✓												
3A. 2,4 – Dimethyl – phenol (105-67-9)			✓												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)			✓												
5A. 2,4 – Dinitro – phenol (51-28-5)			✓												
6A. 2-Nitrophenol (88-75-5)			✓												
7A. 4-Nitrophenol (100-02-7)			✓												
8A. P – Chloro – M Cresol (59-50-7)			✓												
9A. Pentachloro – phenol (87-86-5_			✓												
10A. Phenol (108-952)			✓												
11A. 2,4,6 – Trichloro-phenol (88-06-2)			✓												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			✓												
2B. Acenaphtylene (208-96-8)			✓												
3B. Anthracene (120-12-7)			✓												
4B. Benzidine (92-87-5)			✓												
5B. Benzo (a) Anthracene (56-55-3)			✓												
6B. Benzo (a) Pyrene (50-32-8)			✓												
7B. 3,4 – Benzofluoranthene (205-99-2)			✓												
8B. Benzo (ghi) Perylene (191-24-2)			✓												
9B. Benzo (k) Fluoranthene (207-08-9)			✓												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			✓												
11B. Bis (2-Chloroethyl) Ether (111-44-4)			✓												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)			✓												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			✓												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			✓												
15B. Butyl Benzyl Phthalate (85-68-7)			✓												
16B. 2-Chloronaphthalene (91-58-7)			✓												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			✓												
18B. Chrysene (218-01-9)			✓												
19B. Dibenzo (a.h) Anthracene (53-70-3)			✓												
20B. 1,2 – Dichlorobenzene (95-50-1)			✓												
21B. 1,3 – Dichlorobenzene (541-73-1)			✓												

CONTINUED FROM THE PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	001

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

CONTINUED FROM THE FRONT

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

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CONTINUED FROM THE PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	001

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. 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	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			✓												
18P. PCB-1242 (53469-21-9)			✓												
19P. PBC-1254 (11097-69-1)			✓												
20P. PCB-1221 (11104-28-2)			✓												
21P. PCB-1232 (11141-16-5)			✓												
22P. PCB-1248 (12672-29-6)			✓												
23P. PCB-1260 (11096-82-5)			✓												
24P. PCB-1016 (12674-11-2)			✓												
25P. Toxaphene (8001-35-2)			✓												
J. RADIOACTIVITY															
(1) Alpha Total			✓												
(2) Beta Total			✓												
(3) Radium Total			✓												
(4) Radium 226 Total			✓												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

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

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*
■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Ethan Shackelford, Region I Engineer	(417) 426-5001
SIGNATURE	DATE SIGNED
	10/22/13

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

OCT 24 2013

FORM – APPLICATION FOR DISCHARGE PERMIT PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Central Missouri Landfill

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

MO - 0104540

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

INDUSTRY CATEGORY

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

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	002

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	—		✓												
2M. Beryllium, Total (7440-41-7)	—	—	✓												
3M. Magnesium Total (7439-95-4)		—	✓												
4M. Molybdenum Total (7439-98-7)		—	✓												
5M. Tin Total (7440-31-5)		—	✓												
6M. Titanium Total (7440-32-6)	—		✓												
7M. Mercury, Total (7439-97-6)	—		✓												
8M. Selenium, Total (7782-49-2)			✓												
9M. Thallium, Total (7440-28-0)			✓												
10M. Phenols, Total			✓												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)		—	✓	**DESCRIBE RESULTS**											

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT						D. NO. OF ANALYSES	4. UNITS		5. INTAKE (*optional*)	
	A. TES-ING RE-QUIRED	B. BELIEVED PRESENT	C. 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	
GC/MS FRACTION – VOLATILE COMPOUNDS														
1V. Acrolein (107-02-8)			✓											
2V. Acrylonitrile (107-13-1)			✓											
3V. Benzene (71-43-2)			✓											
4V. Bis (*Chloromethyl*) Ether (542-88-1)			✓											
5V. Bromoform (75-25-2)			✓											
6V. Carbon Tetrachloride (56-23-5)			✓											
7V. Chlorobenzene (108-90-7)			✓											
8V. Chlorodibromomethane (124-48-1)			✓											
9V. Chloroethane (75-00-3)			✓											
10V. 2-Chloroethylvinyl Ether (110-75-8)			✓											
11V. Chloroform (67-66-3)			✓											
12V. Dichlorobromomethane (75-27-4)			✓											
13V. Dichloro-difluoromethane (75-71-8)			✓											
14V. 1,1 – Dichloroethane (75-34-3)			✓											
15V. 1,2 – Dichloroethane (107-06-2)			✓											
16V. 1,1 – Dichloroethylene (75-35-4)			✓											
17V. 1,2 – Dichloropropane (78-87-5)			✓											
18V. 1,2 – Dichloropropylene (542-75-6)			✓											
19V. Ethylbenzene (100-41-4)			✓											
20V. Methyl Bromide (74-83-9)			✓											
21V. Methyl Chloride (74-87-3)			✓											

CONTINUED FROM THE FRONT

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	002

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			✓												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)			✓												
24V. Tetrachloroethylene (127-18-4)			✓												
25V. Toluene (108-88-3)			✓												
26V. 1,2 – Trans Dichloroethylene (156-60-5)			✓												
27V. 1,1,1 – Tri – chloroethane (71-55-6)			✓												
28V. 1,1,2 – Tri-chloroethane (79-00-5)			✓												
29V. Trichloro – ethylene (79-01-6)			✓												
30V. Trichloro – fluoromethane (75-69-4)			✓												
31V. Vinyl Chloride (75-01-4)			✓												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)			✓												
2A. 2,4 – Dichloro – phenol (120-83-2)			✓												
3A. 2,4 – Dimethyl – phenol (105-67-9)			✓												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)			✓												
5A. 2,4 – Dinitro – phenol (51-28-5)			✓												
6A. 2-Nitrophenol (88-75-5)			✓												
7A. 4-Nitrophenol (100-02-7)			✓												
8A. P – Chloro – M Cresol (59-50-7)			✓												
9A. Pentachloro – phenol (87-86-5_			✓												
10A. Phenol (108-952)			✓												
11A. 2,4,6 – Trichloro-phenol (88-06-2)			✓												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			✓												
2B. Acenaphtylene (208-96-8)			✓												
3B. Anthracene (120-12-7)			✓												
4B. Benzidine (92-87-5)			✓												
5B. Benzo (a) Anthracene (56-55-3)			✓												
6B. Benzo (a) Pyrene (50-32-8)			✓												
7B. 3,4 – Benzofluoranthene (205-99-2)			✓												
8B. Benzo (ghi) Perylene (191-24-2)			✓												
9B. Benzo (k) Fluoranthene (207-08-9)			✓												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			✓												
11B. Bis (2-Chloroethyl) Ether (111-44-4)			✓												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)			✓												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			✓												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			✓												
15B. Butyl Benzyl Phthalate (85-68-7)			✓												
16B. 2-Chloronaphthalene (91-58-7)			✓												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			✓												
18B. Chrysene (218-01-9)			✓												
19B. Dibenzo (a.h) Anthracene (53-70-3)			✓												
20B. 1,2 – Dichlorobenzene (95-50-1)			✓												
21B. 1,3 – Dichlorobenzene (541-73-1)			✓												

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NPDES # (*IF ASSIGNED*): MO-0104540 | OUTFALL NUMBER: 002

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

CONTINUED FROM THE FRONT

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

CONTINUED ON PAGE 8

CONTINUED FROM THE PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	002

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			✓												
18P. PCB-1242 (53469-21-9)			✓												
19P. PBC-1254 (11097-69-1)			✓												
20P. PCB-1221 (11104-28-2)			✓												
21P. PCB-1232 (11141-16-5)			✓												
22P. PCB-1248 (12672-29-6)			✓												
23P. PCB-1260 (11096-82-5)			✓												
24P. PCB-1016 (12674-11-2)			✓												
25P. Toxaphene (8001-35-2)			✓												
J. RADIOACTIVITY															
(1) Alpha Total			✓												
(2) Beta Total			✓												
(3) Radium Total			✓												
(4) Radium 226 Total			✓												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

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

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*
■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Ethan Shackelford, Region I Engineer	(417) 426-5001
SIGNATURE	DATE SIGNED
	10/22/13

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

FORM – APPLICATION FOR DISCHARGE PERMIT PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Central Missouri Landfill

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

MO - 0104540

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

INDUSTRY CATEGORY

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

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	004

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)			✓												
2M. Beryllium, Total (7440-41-7)			✓												
3M. Magnesium Total (7439-95-4)			✓												
4M. Molybdenum Total (7439-98-7)			✓												
5M. Tin Total (7440-31-5)			✓												
6M. Titanium Total (7440-32-6)			✓												
7M. Mercury, Total (7439-97-6)			✓												
8M. Selenium, Total (7782-49-2)			✓												
9M. Thallium, Total (7440-28-0)			✓												
10M. Phenols, Total			✓												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)			✓	**DESCRIBE RESULTS**											

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			✓												
2V. Acrylonitrile (107-13-1)			✓												
3V. Benzene (71-43-2)			✓												
4V. Bis (*Chloromethyl*) Ether (542-88-1)			✓												
5V. Bromoform (75-25-2)			✓												
6V. Carbon Tetrachloride (56-23-5)			✓												
7V. Chlorobenzene (108-90-7)			✓												
8V. Chlorodibromomethane (124-48-1)			✓												
9V. Chloroethane (75-00-3)			✓												
10V. 2-Chloroethylvinyl Ether (110-75-8)			✓												
11V. Chloroform (67-66-3)			✓												
12V. Dichlorobromomethane (75-27-4)			✓												
13V. Dichloro-difluoromethane (75-71-8)			✓												
14V. 1,1 – Dichloroethane (75-34-3)			✓												
15V. 1,2 – Dichloroethane (107-06-2)			✓												
16V. 1,1 – Dichloroethylene (75-35-4)			✓												
17V. 1,2 – Dichloropropane (78-87-5)			✓												
18V. 1,2 – Dichloropropylene (542-75-6)			✓												
19V. Ethylbenzene (100-41-4)			✓												
20V. Methyl Bromide (74-83-9)			✓												
21V. Methyl Chloride (74-87-3)			✓												

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	004

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			✓												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)			✓												
24V. Tetrachloroethylene (127-18-4)			✓												
25V. Toluene (108-88-3)			✓												
26V. 1,2 – Trans Dichloroethylene (156-60-5)			✓												
27V. 1,1,1 – Tri – chloroethane (71-55-6)			✓												
28V. 1,1,2 – Tri-chloroethane (79-00-5)			✓												
29V. Trichloro – ethylene (79-01-6)			✓												
30V. Trichloro – fluoromethane (75-69-4)			✓												
31V. Vinyl Chloride (75-01-4)			✓												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)			✓												
2A. 2,4 – Dichloro – phenol (120-83-2)			✓												
3A. 2,4 – Dimethyl – phenol (105-67-9)			✓												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)			✓												
5A. 2,4 – Dinitro – phenol (51-28-5)			✓												
6A. 2-Nitrophenol (88-75-5)			✓												
7A. 4-Nitrophenol (100-02-7)			✓												
8A. P – Chloro – M Cresol (59-50-7)			✓												
9A. Pentachloro – phenol (87-86-5_			✓												
10A. Phenol (108-952)			✓												
11A. 2,4,6 – Trichloro-phenol (88-06-2)			✓												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			✓												
2B. Acenaphtylene (208-96-8)			✓												
3B. Anthracene (120-12-7)			✓												
4B. Benzidine (92-87-5)			✓												
5B. Benzo (a) Anthracene (56-55-3)			✓												
6B. Benzo (a) Pyrene (50-32-8)			✓												
7B. 3,4 – Benzofluoranthene (205-99-2)			✓												
8B. Benzo (ghi) Perylene (191-24-2)			✓												
9B. Benzo (k) Fluoranthene (207-08-9)			✓												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			✓												
11B. Bis (2-Chloroethyl) Ether (111-44-4)			✓												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)			✓												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			✓												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			✓												
15B. Butyl Benzyl Phthalate (85-68-7)			✓												
16B. 2-Chloronaphthalene (91-58-7)			✓												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			✓												
18B. Chrysene (218-01-9)			✓												
19B. Dibenzo (a.h) Anthracene (53-70-3)			✓												
20B. 1,2 – Dichlorobenzene (95-50-1)			✓												
21B. 1,3 – Dichlorobenzene (541-73-1)			✓												

CONTINUED FROM THE PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	004

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

CONTINUE ON PAGE 7

CONTINUED FROM THE FRONT

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

CONTINUED ON PAGE 8

CONTINUED FROM THE PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	004

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			✓												
18P. PCB-1242 (53469-21-9)			✓												
19P. PBC-1254 (11097-69-1)			✓												
20P. PCB-1221 (11104-28-2)			✓												
21P. PCB-1232 (11141-16-5)			✓												
22P. PCB-1248 (12672-29-6)			✓												
23P. PCB-1260 (11096-82-5)			✓												
24P. PCB-1016 (12674-11-2)			✓												
25P. Toxaphene (8001-35-2)			✓												
J. RADIOACTIVITY															
(1) Alpha Total			✓												
(2) Beta Total			✓												
(3) Radium Total			✓												
(4) Radium 226 Total			✓												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

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

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*
■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Ethan Shackelford, Region I Engineer	(417) 426-5001
SIGNATURE	DATE SIGNED
	10/22/13

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

FORM – APPLICATION FOR DISCHARGE PERMIT PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Central Missouri Landfill

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

MO - 0104540

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

INDUSTRY CATEGORY

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

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	005

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	—	—	✓												
2M. Beryllium, Total (7440-41-7)	—	—	✓												
3M. Magnesium Total (7439-95-4)	—	—	✓												
4M. Molybdenum Total (7439-98-7)			✓												
5M. Tin Total (7440-31-5)			✓												
6M. Titanium Total (7440-32-6)	—	—	✓												
7M. Mercury, Total (7439-97-6)			✓												
8M. Selenium, Total (7782-49-2)			✓												
9M. Thallium, Total (7440-28-0)			✓												
10M. Phenols, Total			✓												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—		✓	**DESCRIBE RESULTS**											

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			✓												
2V. Acrylonitrile (107-13-1)			✓												
3V. Benzene (71-43-2)			✓												
4V. Bis (*Chloromethyl*) Ether (542-88-1)			✓												
5V. Bromoform (75-25-2)			✓												
6V. Carbon Tetrachloride (56-23-5)			✓												
7V. Chlorobenzene (108-90-7)			✓												
8V. Chlorodibromomethane (124-48-1)			✓												
9V. Chloroethane (75-00-3)			✓												
10V. 2-Chloroethylvinyl Ether (110-75-8)			✓												
11V. Chloroform (67-66-3)			✓												
12V. Dichlorobromomethane (75-27-4)			✓												
13V. Dichloro-difluoromethane (75-71-8)			✓												
14V. 1,1 – Dichloroethane (75-34-3)			✓												
15V. 1,2 – Dichloroethane (107-06-2)			✓												
16V. 1,1 – Dichloroethylene (75-35-4)			✓												
17V. 1,2 – Dichloropropane (78-87-5)			✓												
18V. 1,2 – Dichloropropylene (542-75-6)			✓												
19V. Ethylbenzene (100-41-4)			✓												
20V. Methyl Bromide (74-83-9)			✓												
21V. Methyl Chloride (74-87-3)			✓												

CONTINUED FROM THE FRONT

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	005

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			✓												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)			✓												
24V. Tetrachloroethylene (127-18-4)			✓												
25V. Toluene (108-88-3)			✓												
26V. 1,2 – Trans Dichloroethylene (156-60-5)			✓												
27V. 1,1,1 – Tri – chloroethane (71-55-6)			✓												
28V. 1,1,2 – Tri-chloroethane (79-00-5)			✓												
29V. Trichloro – ethylene (79-01-6)			✓												
30V. Trichloro – fluoromethane (75-69-4)			✓												
31V. Vinyl Chloride (75-01-4)			✓												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)			✓												
2A. 2,4 – Dichloro – phenol (120-83-2)			✓												
3A. 2,4 – Dimethyl – phenol (105-67-9)			✓												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)			✓												
5A. 2,4 – Dinitro – phenol (51-28-5)			✓												
6A. 2-Nitrophenol (88-75-5)			✓												
7A. 4-Nitrophenol (100-02-7)			✓												
8A. P – Chloro – M Cresol (59-50-7)			✓												
9A. Pentachloro – phenol (87-86-5_			✓												
10A. Phenol (108-952)			✓												
11A. 2,4,6 – Trichloro-phenol (88-06-2)			✓												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			✓												
2B. Acenaphtylene (208-96-8)			✓												
3B. Anthracene (120-12-7)			✓												
4B. Benzidine (92-87-5)			✓												
5B. Benzo (a) Anthracene (56-55-3)			✓												
6B. Benzo (a) Pyrene (50-32-8)			✓												
7B. 3,4 – Benzofluoranthene (205-99-2)			✓												
8B. Benzo (ghi) Perylene (191-24-2)			✓												
9B. Benzo (k) Fluoranthene (207-08-9)			✓												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			✓												
11B. Bis (2-Chloroethyl) Ether (111-44-4)			✓												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)			✓												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			✓												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			✓												
15B. Butyl Benzyl Phthalate (85-68-7)			✓												
16B. 2-Chloronaphthalene (91-58-7)			✓												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			✓												
18B. Chrysene (218-01-9)			✓												
19B. Dibenzo (a.h) Anthracene (53-70-3)			✓												
20B. 1,2 – Dichlorobenzene (95-50-1)			✓												
21B. 1,3 – Dichlorobenzene (541-73-1)			✓												

CONTINUED FROM THE PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	005

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

CONTINUED FROM THE FRONT

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

CONTINUED ON PAGE 8

CONTINUED FROM THE PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
MO-0104540	005

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			✓												
18P. PCB-1242 (53469-21-9)			✓												
19P. PBC-1254 (11097-69-1)			✓												
20P. PCB-1221 (11104-28-2)			✓												
21P. PCB-1232 (11141-16-5)			✓												
22P. PCB-1248 (12672-29-6)			✓												
23P. PCB-1260 (11096-82-5)			✓												
24P. PCB-1016 (12674-11-2)			✓												
25P. Toxaphene (8001-35-2)			✓												
J. RADIOACTIVITY															
(1) Alpha Total			✓												
(2) Beta Total			✓												
(3) Radium Total			✓												
(4) Radium 226 Total			✓												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES *(LIST ALL SUCH POLLUTANTS BELOW)* ■ NO *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES *(COMPLETE C BELOW)* ■ NO *(GO TO SECTION 3.00)*

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

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☐ YES *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*
■ NO *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED *(list)*

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Ethan Shackelford, Region I Engineer	(417) 426-5001
SIGNATURE	DATE SIGNED
	10/22/13