

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

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

Permit No. MO-0129810

Owner: Pink Hill Acres, Incorporated  
Address: 2501 Manchester Trafficway, Kansas City, MO 64129

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Pink Hill Acres Demolition Landfill  
Facility Address: 3500 NW 7 Highway, Blue Springs, MO 64014

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

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

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

**FACILITY DESCRIPTION**

Construction and Demolition Landfill. In addition to the landfill, this facility conducts shingle recycling, wood scrap recycling and concrete recycling.  
Actual flow is dependent upon precipitation.

**Leachate cannot be discharged. Stormwater that has come into contact with leachate is considered leachate and cannot be discharged. Leachate and stormwater that 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 wastewater 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.

February 1, 2015  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

March 31, 2019  
Expiration Date

John Madras, Director, Water Protection Program

**FACILITY DESCRIPTION (continued):**

Outfall #001 - Industrial, Active Construction and Demolition Landfill and Shingle Recycling – SIC #4953

Stormwater retention basin collecting stormwater runoff from the landfill, process wastewater from the shingle recycling facility, and wash water from dust control activities including water trucks, water cannons and other wetting measures.

Area Drained is 17 acres.

Design flow is 1,625,400 gallons per day.

Actual flow is dependent upon rainfall.

Legal Description: SW¼, NE¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X= 390540, Y= 4324505  
Receiving Stream: West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) (0422)  
USGS Basin & Sub-watershed No.: 10300101-0208

Outfall #002 - Industrial, Active Construction and Demolition Landfill – SIC #4953

Stormwater retention basin and wash water from dust control activities including water trucks, water cannons and other wetting measures.

Area Drained is 20 acres.

Design flow is 2,438,000 gallons per day.

Actual flow is dependent upon rainfall.

Legal Description: SW¼, NE¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X= 390549, Y= 4324335  
Receiving Stream: Unnamed tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) (0422)  
USGS Basin & Sub-watershed No.: 10300101-0208

Outfall #003 - Soil borrow area

Stormwater runoff from soil borrow area and wood recycling activity conducted on this soil borrow area.

Area Drained is 38 acres.

Actual flow is dependent upon rainfall.

Legal Description: SW¼, NW¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X= 389958, Y= 4324614  
Receiving Stream: Unnamed tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) (0422)  
USGS Basin & Sub-watershed No.: 10300101-0208

Outfall #004 - Soil borrow area

Stormwater runoff from soil borrow area, concrete recycling activity conducted on this soil borrow area, and process wastewater from the shingle recycling facility.

Area Drained is 39 acres.

Actual flow is dependent upon rainfall.

Legal Description: SE¼, NW¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X= 390260, Y= 4324236  
Receiving Stream: West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) (0422)  
USGS Basin & Sub-watershed No.: 10300101-0208

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH LANDFILL

OUTFALL #001 & #002	TABLE A-1. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH LANDFILL					
	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 <b>February 1, 2015</b> , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETER(S) (Note 1, page 4)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/quarter****	24 hr. estimate
Precipitation	Inches	*	-	*	once/day	total measured
Biochemical Oxygen Demand <sub>5</sub>	mg/L	45	-	30	once/quarter****	grab
Chemical Oxygen Demand	mg/L	90	-	60	once/quarter****	grab
Total Suspended Solids	mg/L	80	-	50	once/quarter****	grab
pH – Units	SU	***	-	***	once/quarter****	grab
Settleable Solids	mL/L/hr	1.5	-	1.0	once/quarter****	grab
Conductivity	µS/cm	**	-	-	once/quarter****	grab
Oil & Grease	mg/L	**	-	-	once/quarter****	grab
Ammonia as N	mg/L	**	-	-	once/quarter****	grab
Chloride + Sulfate	mg/L	1,000	-	-	once/quarter****	grab
Fluoride	mg/L	*	-	-	once/quarter****	grab
Benzene	mg/L	*	-	-	once/quarter****	grab
Ethylbenzene	mg/L	*	-	-	once/quarter****	grab
Toluene	mg/L	*	-	-	once/quarter****	grab
Total Xylene	mg/L	*	-	-	once/quarter****	grab
Aluminum, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Antimony, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Arsenic, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Beryllium, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Cadmium, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Chromium (III), Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Chromium (VI), Dissolved	µg/L	**	-	-	once/quarter****	grab
Copper, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Iron, Total Recoverable	µg/L	1,000	-	-	once/quarter****	grab
Lead, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Mercury, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Nickel, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Selenium, Total Recoverable	µg/L	5	-	-	once/quarter****	grab
Silver, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Thallium, Total Recoverable	µg/L	**	-	-	once/quarter****	grab
Zinc, Total Recoverable	µg/L	209	-	-	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH LANDFILL (continued)

- \* Monitoring requirement only.
- \*\* Monitoring requirement associated with a benchmark value. See Special Condition #11.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- \*\*\*\* See table below for quarterly sampling.

<b>Minimum Sampling Requirements</b>			
<b>Quarter</b>	<b>Months</b>	<b>Effluent Parameters</b>	<b>Report is Due</b>
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 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

Note 1 - For flow-through BMPs, stormwater samples shall be collected once per quarter within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.

For retention BMPs, stormwater samples shall be collected once per quarter when a discharge occurs.

**B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH SOIL BORROW AREA**

OUTFALL #003	TABLE B-1. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH SOIL BORROW AREA					
	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 <b>February 1, 2015</b> , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETER(S) (Note 1, page 5)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	-	once/quarter****	24 hr. estimate
Precipitation	Inches	*	-	-	once/day	total measured
Chemical Oxygen Demand	mg/L	**	-	-	once/quarter****	grab
Total Suspended Solids	mg/L	**	-	-	once/quarter****	grab
pH – Units	SU	***	-	-	once/quarter****	grab
Settleable Solids	mL/L/hr	**	-	-	once/quarter****	grab
Oil and Grease	mg/L	**	-	-	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH SOIL BORROW AREA (continued)**

- \* Monitoring requirement only.
- \*\* Monitoring requirement associated with a benchmark value. See Special Condition #11.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- \*\*\*\* See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

Note 1 - For flow-through BMPs, stormwater samples shall be collected once per quarter within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.

For retention BMPs, stormwater samples shall be collected once per quarter when a discharge occurs.

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH SOIL BORROW AREA AND SHINGLE PROCESSING FACILITY

EFFLUENT PARAMETER(S) (Note 1, page 6)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	-	once/quarter***	24 hr. estimate
Precipitation	Inches	*	-	-	once/day	total measured
Chemical Oxygen Demand	mg/L	90	-	60	once/quarter***	grab
Total Suspended Solids	mg/L	80	-	50	once/quarter***	grab
pH – Units	SU	**	-	**	once/quarter***	grab
Settleable Solids	mL/L/hr	1.5	-	1.0	once/quarter***	grab
Oil and Grease	mg/L	15	-	10	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR STORMWATER RUNOFF IN CONTACT WITH SOIL BORROW AREA (continued)

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- \*\*\* See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

Note 1 - For flow-through BMPs, stormwater samples shall be collected once per quarter within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.

For retention BMPs, stormwater samples shall be collected once per quarter when a discharge occurs.

D. 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.

E. SPECIAL CONDITIONS

1. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section IV of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at <http://dnr.mo.gov/pubs/pub2481.htm>.
2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

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

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

The permittee shall notify the Director as soon as it knows or has reason to believe:

  - (a) That any activity has occurred or will occur which would result in the discharge 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; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

E. SPECIAL CONDITIONS (continued)

6. Report as no-discharge when a discharge does not occur during the report period.
7. Reporting of Non-Detects:
  - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
  - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
  - (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
  - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
  - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
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 permittee shall implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented within 90 days of the effective date of this permit. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- a. A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
- b. The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include weather information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department personnel upon request.
- c. A provision for designating an individual to be responsible for environmental matters.
- d. A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.

E. SPECIAL CONDITIONS (continued)

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

For flow-through BMPs, stormwater samples shall be collected once per quarter within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.

For retention BMPs, stormwater samples shall be collected once per quarter when a discharge occurs.

<i>Outfall #001 &amp; #002</i>		
PARAMETER	BENCHMARK	
	Value	Unit
Conductivity	500	µS/cm
Oil & Grease	15	mg/L
Ammonia as N	12.1	mg/L
Aluminum, Total Recoverable	750	µg/L
Antimony, Total Recoverable	4,300	µg/L
Arsenic, Total Recoverable	20	µg/L
Beryllium, Total Recoverable	5	µg/L
Cadmium, Total Recoverable	10	µg/L
Chromium (III), Total Recoverable	3,090	µg/L
Chromium (VI), Dissolved	15	µg/L
Copper, Total Recoverable	26	µg/L
Lead, Total Recoverable	188	µg/L
Mercury, Total Recoverable	3	µg/L
Nickel, Total Recoverable	819	µg/L
Silver, Total Recoverable	12	µg/L
Thallium, Total Recoverable	6	µg/L

<i>Outfall #003&amp; #004</i>		
PARAMETER	BENCHMARK	
	Value	Unit
Chemical Oxygen Demand	90	mg/L
Total Suspended Solids	80	mg/L
Settleable Solids	1.5	mL/L/hr
Oil and Grease	15	mg/L

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 tangible progress towards achieving the benchmarks is a permit violation.

12. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
- a. Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water 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 storm water or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of storm water 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.

E. SPECIAL CONDITIONS (continued)

13. 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.
14. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. If the presence of hydrocarbons is indicated, this water must be tested for Total Petroleum Hydrocarbons (TPH). The analytical method for testing TPH must comply with EPA approved testing methods listed in [40 CFR 136]. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.
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.

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0129810**  
**PINK HILL ACRES, INC. - DEMOLITION 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 storm water 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.

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 (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

**Part I – Facility Information**

Facility Type: Industrial  
Facility SIC Code(s): 4953

**Facility Description:**

Construction and demolition landfill – active landfill accepting construction and demolition debris since May 2006. The entire property is 114 acres. The active site consists of a 37-acre drainage area with 19 acres being the active landfill. These 37 acres drain into one of two sedimentation ponds located on the east side of the property. The northeast sedimentation pond drains to Outfall #001. This pond contains stormwater runoff from the active landfill and process wastewater from the shingle recycling activity. The process water generated from the shingle recycling activity consists of cooling water and emission control water. The southeast sedimentation pond drains to Outfall #002. This pond collected stormwater runoff from the undeveloped site, which will be used for expansion of the landfill.

The remaining portion of the active site consists of the borrow area, which was previously permitted under the general land disturbance permit MO-RA01087. This area contains land disturbance activities for moving soil to be used as layers for capping the landfill. Other activities associated on this portion of the property include scrap wood recycling and concrete disposal. Outfall #003 is located to the northwest of the property and Outfall #004 is located to the south of the property, near the main facility entrance. Currently, only stormwater discharges from these outfalls.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- Yes; the entire property is being included in this one site-specific permit. The outfalls that are named Outfall #003 and Outfall #004 in this permit were previously permitted under a general land disturbance permit, MO-RA01087. The Department determined that it is unnecessary to have two stormwater permits associated with the same facility. Therefore, all the activities associated with the general land disturbance permit have been incorporated into this site-specific permit.

Application Date: 03/04/2014  
Expiration Date: 08/27/2014  
Last Inspection: 11/04/2013 and 11/06/2013      In Compliance ;      Non-Compliance

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	2.5	Best Management Practices (BMPs) – Stormwater Retention Basin	Stormwater in contact with landfill
#002	3.6	Best Management Practices (BMPs) – Stormwater Retention Basin	Stormwater in contact with landfill
#003	Stormwater Dependent	BMPs	Stormwater in contact with soil borrow area
#004	Stormwater Dependent	BMPs	Stormwater in contact with soil borrow area

Facility Performance History & Comments:

This facility was last inspected on November 4 and November 6, 2013. The facility was found to be in non-compliance during the time of the inspection. The following unsatisfactory features were noted:

1. Failed to operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions by allowing non-stormwater discharges of process wastewater generated from the asphalt shingle grinder [§ 644.051.2 and 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D) 1].
2. Facility failed to develop and implement the Storm Water Pollution Prevention Plan for MO-0129810, as required in Missouri State Operating Permit MO-0129810 Special Conditions #6. [§ 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D)].
3. The site inspections and employee training are not being conducted as required in the Missouri State Operating Permit MO-0129810 Special Conditions #6 due to failure to recognize violations of permit requirements prohibiting non-stormwater discharges [§ 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D)].
4. On November 6, 2013, failed to comply with the effluent limits contained in Part "A" of MSOP MO-0129810 by exceeding the permit limit for Total Suspended Solids [§ 644.051.1(3) 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D) 1].

A Notice of Violation (NOV) was issued as a result of the inspection. The following reasons were noted:

1. Operating, using, and maintaining a water contaminant point source (shingle grinder) without a permit [§ 644.051.2 and 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D) 1].
2. Failure to comply with applicable permit conditions (development and implementation of SWPPP, including inspection and training requirements) [§ 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D)].
3. Failure to comply with effluent limits (Total Suspended Solids) contained in Part "A" of MSOP MO-0129810 [§ 644.051.1(3) 644.076.1, RSMo, and regulation 10 CSR 20-6.200 (6) (D) 1].

The site-inspection report discussed above lists compliance history for this facility and can be viewed upon request.

On July 09, 2014, the Department issued letter notifying the permittee that they had met the required actions from the NOV, and the facility had returned to compliance.

**Part II – Receiving Stream Information**

Receiving Water Body’s Water Quality

No stream surveys have been conducted on the unnamed tributary to West Fire Prairie Creek (U) or West Fire Prairie Creek (U).

The Little Blue River (P) (0422) is listed on the 2012 Missouri 303(d) List for Escherichia coli. Once a TMDL is developed, the permit may be modified to include WLAs from the TMDL.

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) 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 [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Losing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1<sup>st</sup> classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	OUTFALL #	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
West Fire Prairie Creek	U	N/A	GEN	#001	4.3	10300101-0208
Unnamed tributary to West Fire Prairie Creek	U	N/A	GEN	#002	4.4	
Unnamed tributary to West Fire Prairie Creek	U	N/A	GEN	#003	4.6	
West Fire Prairie Creek	U	N/A	GEN	#004	4.7	
Little Blue River	P	0422	AQL, GEN, LWV, SCR, WBC-B	N/A	N/A	

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW), General Criteria (GEN). \*\* - Hydrologic Unit Code

**RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:**

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed tributary to West Fire Prairie Creek (U)	0.0	0.0	0.0
West Fire Prairie Creek (U)	0.0	0.0	0.0

**MIXING CONSIDERATIONS:**

Mixing Zone: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(a)].  
 Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(b)].

**RECEIVING STREAM MONITORING REQUIREMENTS:**

No receiving water monitoring requirements recommended at this time.

### **Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions**

#### **ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

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

Not Applicable; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

#### **ANTI-BACKSLIDING:**

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

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

- The Department determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b). Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed in the permit. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under special condition #11 of the permit. For the complete list of parameters that only contain a MDL, have monitoring only as a MDL, or have monitoring only as a MDL with benchmark values, please see Part V of the factsheet.

- 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 permit writer used best professional to remove effluent limitations for Total Residual Copper. The Discharge Monitoring Reports (DMRs) submitted by the permitted shows 15 sample results for Total Residual Copper in the range of < 5-7 µg/L. This shows that the facility does not have a reasonable potential to exceed water quality standards for this parameter. Therefore, effluent limitations have been removed and monitoring only has been implemented with a benchmark value set at the Acute Criteria for protection of Aquatic Life, which is 26 µg/L.

Additionally, the monitoring requirement for Total Hardness was removed from the permit. There are no water quality standards for this parameter and effluent hardness is not relevant to calculating limits. The instream hardness must be considered when calculating such effluent limitations. The instream hardness provides consideration to amount of pollutants that may be bioavailable in the receiving stream. Monitoring the hardness of stormwater runoff does not adequately characterize the receiving stream conditions. Furthermore, the pollutants affected by hardness will use a default value of 193 mg/L in the calculations, which is consistent with other stormwater and landfill permits issued in the state of Missouri. Therefore, the permit writer has used best professional judgment to remove this parameter from the permit.

#### **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.

#### **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.

**FLOW BASED PERMITTING:**

A standard mass-balance equation cannot be calculated for stormwater from this facility because the flow from the facility 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 climactic conditions, size of watershed, 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. Effluent limitations are based on acute criteria that are subjected to Long Term Averages and then converted into Maximum Daily Limits or Average Monthly Limits.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(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.

**SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, 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.

Not Applicable; This permit does not contain a SOC.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water 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.

Applicable; A SWPPP shall be developed and implemented for each site 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.

**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.

**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 amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable; Wasteload allocations were not calculated.

**WLA MODELING:**

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

Not Applicable; A WLA study was either not submitted or determined not applicable by Department staff.

**WATER QUALITY STANDARDS:**

Per [10 CSR 20-7.031(3)], 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.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

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.

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. 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

Applicable; The Little Blue River (P) (0422) is listed on the 2012 Missouri 303(d) List for *Escherichia coli*.

– It is unknown at this time if the facility is a source of the above listed pollutant(s) or considered to contribute to the impairment of Little Blue River (P) (0422). Once a TMDL is developed, the permit may be modified to include WLAs from the TMDL.

## **Part IV –2013 Water Quality Criteria for Ammonia**

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities.

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

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

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

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

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

Summer – monitoring only with a benchmark value of 12.1 mg/L.

Winter – monitoring only with a benchmark value of 12.1 mg/L.

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

Summer – 1.7 mg/L daily maximum, 0.6 mg/L monthly average.

Winter – 5.6 mg/L daily maximum, 2.1 mg/L monthly average.

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

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations.

For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

**Part V – Effluent Limits Determination**

***Outfall #001 & #002 – Main Facility Outfall***

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

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

**Benchmarks**

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

It is the permit writer’s best professional judgment to require monitoring only for the parameters previously listed as effluent limitations. Based on the nature of the discharge as stormwater, the facility does not have reasonable potential to cause an exceedance of water quality standards in the receiving stream for the following parameters: Conductivity, Oil & Grease, Ammonia as N, and all total recoverable metals. Therefore, benchmarks will be placed in the permit rather than effluent limitations. The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the EPA MSGP. The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will again be necessary to protect water quality.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	No	*/*
PRECIPITATION	Inches	9	*		*	No	*/*
COD	mg/L	9	90		60	No	90/60
BOD <sub>5</sub>	mg/L	9	45		30	No	45/30
TSS	mg/L	1	80		50	No	80/50
pH	SU	1	6.5 – 9.0		6.5 – 9.0	No	6.5-9.0
SETTLABLE SOLIDS	mL/L/hr	1/9	1.5		1.0	No	1.5/1.0
TOTAL DISSOLVED SOLIDS	mg/L	9	***		***	YES	*/*
CONDUCTIVITY	µS/cm@ 25°C	1/2/9	****		***	YES	*/*
OIL & GREASE	mg/L	1/2/9	****		***	YES	*/*
AMMONIA AS N	mg/L	1/2/9	****		***	YES	*/*
CHLORIDE + SULFATE	mg/L	1/2/3/9	1,000		***	YES	1000/*
CHLORIDE	mg/L	9	***		***	YES	858.7/428
CALCIUM	mg/L	9	***		***	YES	*/*
FLUORIDE	mg/L	1/2/9	*		***	YES	*/*
TOTAL ORGANIC CARBON	mg/L	9	***		***	YES	*/*
BENZENE	µg/L	1/2/9	*		***	YES	*/*
ETHYLBENZENE	µg/L	1/2/9	*		***	YES	*/*
TOLUENE	µg/L	1/2/9	*		***	YES	*/*
TOTAL XYLENE	µg/L	1/2/9	*		***	YES	*/*
TOTAL HARDNESS	mg/L	9	***		***	YES	*/*
ALUMINUM, TR	µg/L	1/2/3/9	750		***	YES	750/374
ANTIMONY, TR	µg/L	1/2/9	****		***	YES	*/*

**EFFLUENT LIMITATIONS TABLE (CONTINUED):**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	Monthly Average	MODIFIED	PREVIOUS PERMIT LIMITATIONS
ARSENIC, TR	µg/L	1/2/9	****		***	YES	*/*
BARIUM, TR	µg/L	9	***		***	YES	*/*
BERYLLIUM, TR	µg/L	1/2/9	****		***	YES	*/*
BORON, TR	µg/L	9	***		***	YES	*/*
CADMIUM, TR	µg/L	1/2/9	****		***	YES	*/*
CHROMIUM (III), TR	µg/L	1/2/9	****		***	YES	*/*
CHROMIUM (VI), DISSOLVED	µg/L	1/2/9	****		***	YES	*/*
COBALT, TR	µg/L	9	***		***	YES	*/*
COPPER, TR	µg/L	1/2/9	****		***	YES	26/13
IRON, TR	µg/L	1/2/3/9	1,000		***	YES	1643/816
LEAD, TR	µg/L	1/2/9	****		***	YES	*/*
MAGNESIUM, TR	µg/L	9	***		***	YES	*/*
MANGANESE, TR	µg/L	9	***		***	YES	*/*
MERCURY, TR	µg/L	1/2/9	****		***	YES	*/*
NICKEL, TR	µg/L	1/2/9	****		***	YES	*/*
SELENIUM, TR	µg/L	1/2/3/9	5		***	YES	8.2/4.2
SILVER, TR	µg/L	1/2/9	****		***	YES	*/*
SODIUM, TR	µg/L	9	***		***	YES	*/*
THALLIUM, TR	µg/L	1/2/9	****		***	YES	*/*
VANADIUM, TR	µg/L	9	***		***	YES	*/*
ZINC, TR	µg/L	1/2/3/9	209		***	YES	210/105
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

- \* - Monitoring requirement only.
- \*\* - Parameter not previously established in previous state operating permit.
- \*\*\* - Parameter removed from permit.
- \*\*\*\* - Monitoring only with a Benchmark Value in permit.
- TR –Total Recoverable

**Basis for Limitations Codes:**

- |  |                                    |
|--|------------------------------------|
| 1. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 3. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 4. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 11. WET Test Policy                |
| 6. Antidegradation Review                |                                    |

**OUTFALL #001 & #002 – DERIVATION AND DISCUSSION OF LIMITS:**

Please note that the permittee has reported no-discharge from Outfall #002 since initial issuance of this permit. No data exist for Outfall #002. All discussion of Discharge Monitoring Report (DMR) data in the derivations below refer to results from testing effluent from Outfall #001. Data from Outfall #001 will drive the final effluent limitation for both outfalls.

- **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.
- **Precipitation.** Monitoring only requirement. Measuring the amount of rainfall 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.
- **Chemical Oxygen Demand (COD).** Effluent limitations of 90 mg/L as a MDL and 60 mg/L as a AML are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.

- **Biochemical Oxygen Demand (BOD<sub>5</sub>)**. Effluent limitations of 45 mg/L as a MDL and 30 mg/L as a AML are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.
- **Total Suspended Solids (TSS)**. Effluent limitations of 80 mg/L as a MDL and 50 mg/L as a AML are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.
- **pH**. – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Settleable Solids**. Effluent limitations of 1.5 mL per L per hour as a MDL and 1.0 mL per L per hour as a AML are applicable and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.
- **Total Dissolved Solids (TDS)**. Monitoring only requirement removed. The effluent limitations have been reassessed and determined to be unnecessary in the protection of water quality. The permit writer has used best professional judgment to remove the monitoring requirement for this parameter. Any water quality impacts from solids will be assessed by monitoring Total Suspended Solids and Settleable Solids.
- **Conductivity**. The effluent limitations have been reassessed and determined to still be protective of water quality. The permit writer has used best professional judgment to continue monitoring for this parameter. High conductivity correlates to high concentrations of dissolved solids in the water. This would indicate that the solids from the stormwater runoff are not settling properly in the retention basin. Monitoring for conductivity provides the permittee and the Department with an indicator that operations and maintenance need to be evaluated to ensure the facility is treating the stormwater runoff adequately to protect the water quality in the receiving stream. EPA references studies that indicate streams supporting good mixed fisheries have a range of specific conductance between 150 and 500 umhos/cm. Therefore, the permit writer has implemented a benchmark value at the top of this range, which is 500 umhos/cm. This value will be used as an indicator that levels of specific conductance resulting in values at or above 500 umhos/cm may be causing impairment to water quality in the receiving stream. If levels consistently exceed this benchmark value, effluent limitations may be considered for conductivity.
- **Oil & Grease**. Monitoring only requirement. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. However, due to the nature of the discharge being stormwater, the permit writer uses best professional judgment to implement a benchmark value instead of effluent limitations. The benchmark value will be set at 15 mg/L.
- **Total Ammonia Nitrogen**. Monitoring only requirement. The permit writer has used best professional judgment to continue requiring monitoring only. Review of the DMR data shows a concentration range of 0.3 – 1.4 mg/L with 14 of the 15 data points being below 1.0 mg/L. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the Protection of Aquatic Life Acute Criteria of 12.1 mg/L.
- **Chlorides + Sulfate**. Effluent limitation of 1000 mg/L as a MDL is applicable as per [10 CSR 20-7.031(L)1.].
- **Chlorides**. Effluent limitations removed. The permit writer used best professional judgment to remove this parameter from the permit, as effluent limitations for Chloride + Sulfate are implemented in the permit. Requiring effluent limitations or monitoring for this parameter would be redundant. Review of the DMR data shows a concentration range of 7.2-31.9 mg/L.
- **Calcium**. Monitoring only requirement removed. There are no water quality standards for this parameter. Therefore, the permit writer has used best professional judgment to remove this parameter from the permit.
- **Fluoride**. Monitoring only requirement. Review of the DMR data shows a concentration range of 0.29-0.41 mg/L.
- **Total Organic Carbon**. Monitoring only requirement removed. There are no water quality standards for this parameter. Therefore, the permit writer has used best professional judgment to remove this parameter from the permit.
- **Benzene**. Monitoring only requirement. Review of the DMR data shows concentrations reported as < 5 mg/L.
- **Ethylbenzene**. Monitoring only requirement. Review of the DMR data shows concentrations reported as < 5 mg/L.

- **Toluene.** Monitoring only requirement. Review of the DMR data shows concentrations reported as < 5 mg/L.
- **Total Xylene.** Monitoring only requirement. Review of the DMR data shows concentrations reported as < 15 mg/L and < 10 mg/L.
- **Total Hardness.** Monitoring only requirement removed. There are no water quality standards for this parameter. Additionally, effluent hardness is not relevant to calculating limits. The instream hardness must be considered when calculating such effluent limitations. This instream hardness provides consideration to amount of pollutants that may be bioavailable in the receiving stream. Monitoring the hardness of stormwater runoff does not adequately characterize the receiving stream conditions. Furthermore, the pollutants affected by hardness will use a default value of 193 mg/L in the calculations, which is consistent with other stormwater and landfill permits issued in the state of Missouri. Therefore, the permit writer has used best professional judgment to remove this parameter from the permit.

**Metals**

Effluent limitations for total recoverable metals were developed using methods and procedures outlined in EPA/505/2-90-001 and “The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion” (EPA 823-B-96-007). General warm-water fishery criteria apply and hardness of 193 mg/L.

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

METAL	CONVERSION FACTORS
	ACUTE
Aluminum	N/A
Antimony	N/A
Arsenic	1.000
Barium	N/A
Beryllium	N/A
Boron	N/A
Cadmium	0.916
Chromium III	0.316
Chromium VI	N/A
Cobalt	N/A
Copper	0.960
Iron	N/A
Lead	0.695
Magnesium	N/A
Manganese	N/A
Mercury	0.850
Nickel	0.998
Selenium	N/A
Silver	0.850
Sodium	N/A
Thallium	N/A
Vanadium	N/A
Zinc	0.980

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

Per 10 CSR 20-7.031(4)(B)2.A., the permittee shall comply with the water quality standard associated with the use designation of aquatic life protection and human health-fish consumption. Table A of 10 CSR 20-7.031 does list separate water quality standards for protection of aquatic life (AQL) and human health protection – fish consumption (HHF). Therefore, the permit writer will use the more stringent of the two standards in order to comply with the above listed regulation requiring the combination of both use designations.

- **Aluminum, Total Recoverable.** AQL Criteria Chronic = N/A, Acute = 750 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from < 200-3890 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue implementing effluent limitations. There is no conversion factor from dissolved to total recoverable for Aluminum; therefore [10 CSR 20-7.031 Table A] is the criteria. No mixing allowed; therefore the criteria = the WLA. The most stringent criteria is AQL Criteria = 750 µg/L.

WLA = 750 µg/L = MDL

- **Antimony, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = 4,300 µg/L. Review of the DMR data shows concentrations reported as < 50 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the HFF Criteria of 4,300 µg/L.
- **Arsenic, Total Recoverable.** AQL Criteria = 20 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations reported as < 5 µg/L with one result of 7 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Criteria of 20 µg/L.
- **Barium, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Beryllium, Total Recoverable.** AQL Criteria = 5 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations reported as < 50 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Criteria of 5 µg/L.
- **Boron, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Cadmium, Total Recoverable.** AQL Criteria Chronic = 0.44 µg/L, Acute = 9.83 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations reported as < 5 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 10 µg/L.

Criteria with consideration to conversion factors:

Chronic = 0.4/0.881 = 0.44 µg/L  
Acute = 9.0/0.916 = 9.83 µg/L

- **Chromium (III), Total Recoverable.** AQL Criteria Chronic = 148 µg/L, Acute = 3090 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations reported as < 10 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 3,090 µg/L.

Criteria with consideration to conversion factors:

Chronic = 127/0.860 = 147.69 µg/L  
Acute = 976/0.316 = 3089.64 µg/L

- **Chromium (VI), Dissolved.** AQL Criteria Chronic = 10 µg/L, Acute = 15 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations reported as < 5 µg/L with one value of < 10 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 15 µg/L.

- **Cobalt, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Copper, Total Recoverable.** AQL Criteria Chronic = 16.36 µg/L, Acute = 26 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from < 5-7 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to remove the effluent limitations and require monitoring only. The DMR data shows that the facility does not have a reasonable potential to exceed water quality standards for this parameter. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 26 µg/L.

Criteria with consideration to conversion factors:

$$\begin{aligned}\text{Chronic} &= 15.7/0.960 = 16.36 \text{ } \mu\text{g/L} \\ \text{Acute} &= 25.0/0.960 = 26.0 \text{ } \mu\text{g/L}\end{aligned}$$

- **Iron, Total Recoverable.** AQL Criteria = 1,000 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from 22-2590 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue implementing effluent limitations. There is no conversion factor from dissolved to total recoverable for Aluminum; therefore [10 CSR 20-7.031 Table A] is the criteria. No mixing allowed; therefore the criteria = the WLA. The most stringent criteria is AQL Criteria = 1,000 µg/L.

$$\text{WLA} = 1,000 \text{ } \mu\text{g/L} = \text{MDL}$$

- **Lead, Total Recoverable.** AQL Criteria Chronic = 7.35 µg/L, Acute = 188.47 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations of < 5 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 188 µg/L.

Criteria with consideration to conversion factors:

$$\begin{aligned}\text{Chronic} &= 5.1/0.695 = 7.35 \text{ } \mu\text{g/L} \\ \text{Acute} &= 131/0.695 = 188.47 \text{ } \mu\text{g/L}\end{aligned}$$

- **Magnesium, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Manganese, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Mercury, Total Recoverable.** AQL Criteria Chronic = 0.5 µg/L, Acute = 2.82 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations of < 5 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 3 µg/L.

Criteria with consideration to conversion factors:

$$\begin{aligned}\text{Chronic} &= \text{WLA} = 0.5 \text{ } \mu\text{g/L} \\ \text{Acute} &= 2.4/0.85 = 2.82 \text{ } \mu\text{g/L}\end{aligned}$$

- **Nickel, Total Recoverable.** AQL Criteria Chronic = 91.03 µg/L, Acute = 818.84 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations of < 10 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Acute Criteria of 819 µg/L.

Criteria with consideration to conversion factors:

$$\begin{aligned}\text{Chronic} &= 90.8/0.997 = 91.03 \text{ } \mu\text{g/L} \\ \text{Acute} &= 817/0.998 = 818.84 \text{ } \mu\text{g/L}\end{aligned}$$

- **Selenium, Total Recoverable.** AQL Criteria = 5 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from < 5-48 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue implementing effluent limitations. There is no conversion factor from dissolved to total recoverable for Aluminum; therefore [10 CSR 20-7.031 Table A] is the criteria. No mixing allowed; therefore the criteria = the WLA. The most stringent criteria is AQL Criteria = 5 µg/L.

WLA = 5 µg/L = MDL

- **Silver, Total Recoverable.** AQL Criteria = 11.75 µg/L. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from < 3 – < 5 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the AQL Criteria of 12 µg/L.

Criteria with consideration to conversion factors:

Acute =  $10/0.850 = 11.75$  µg/L

- **Sodium, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Thallium, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = 6.3 µg/L. Review of the DMR data shows concentrations ranging from < 100 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue the monitoring only requirement. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at the HFF Criteria of 6 µg/L.
- **Vanadium, Total Recoverable.** AQL Criteria = N/A. HFF Criteria = N/A. Monitoring requirement removed. There are no water quality standards for this parameter, thus no legal justification to require monitoring to ensure protection of AQL or HFF in the receiving stream. The permit writer has used best professional judgment to remove this parameter from the permit.
- **Zinc, Total Recoverable.** AQL Criteria Chronic = 209.16 µg/L, Acute = 209.16. HFF Criteria = N/A. Review of the DMR data shows concentrations ranging from < 5- 289 µg/L. Based on the DMR data relative to the water quality standards, the permit writer used best professional judgment to continue implementing effluent limitations. There is no conversion factor from dissolved to total recoverable for Aluminum; therefore [10 CSR 20-7.031 Table A] is the criteria. No mixing allowed; therefore the criteria = the WLA. The most stringent criteria is AQL Acute Criteria = 209µg/L.

Criteria with consideration to conversion factors:

Chronic =  $204.97/0.980 = 209.16$  µg/L

Acute =  $204.97/0.980 = 209.16$  µg/L

WLA = 209 µg/L = MDL

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	once/quarter	once/quarter
PRECIPITATION	once/day	once/quarter
COD	once/quarter	once/quarter
BOD <sub>5</sub>	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter
SETTLABLE SOLIDS	once/quarter	once/quarter
CONDUCTIVITY	once/quarter	once/quarter
OIL & GREASE	once/quarter	once/quarter
AMMONIA AS N	once/quarter	once/quarter
CHLORIDE + SULFATE	once/quarter	once/quarter
FLUORIDE	once/quarter	once/quarter
BENZENE	once/quarter	once/quarter
ETHYLBENZENE	once/quarter	once/quarter
TOLUENE	once/quarter	once/quarter
TOTAL XYLENE	once/quarter	once/quarter
ALUMINUM, TR	once/quarter	once/quarter
ANTIMONY, TR	once/quarter	once/quarter
ARSENIC, TR	once/quarter	once/quarter
BERYLLIUM, TR	once/quarter	once/quarter
CADMIUM, TR	once/quarter	once/quarter
CHROMIUM (III), TR	once/quarter	once/quarter
CHROMIUM (VI), DISSOLVED	once/quarter	once/quarter
COPPER, TR	once/quarter	once/quarter
IRON, TR	once/quarter	once/quarter
LEAD, TR	once/quarter	once/quarter
MERCURY, TR	once/quarter	once/quarter
NICKEL, TR	once/quarter	once/quarter
SELENIUM, TR	once/quarter	once/quarter
SILVER, TR	once/quarter	once/quarter
THALLIUM, TR	once/quarter	once/quarter
ZINC, TR	once/quarter	once/quarter

TR - Total Recoverable

**Sampling Frequency Justification:**

Sampling and Reporting Frequency was increased to once per quarter for all parameters. In order to obtain sufficient data to determine the reasonable potential for the facility to exceed water quality standards, more samples need to be taken than just once per year. Additionally, many of the parameters now have associated benchmark values. Once per quarter sampling will provide increased assurance that best management practices are functioning properly to meet those benchmark values.

**Sampling Type Justification**

Due to the nature of the discharge being stormwater, the permit writer has best professional judgment to continue requiring grab samples for all parameters except flow and rainfall. Flow should be a 24 hour estimate and total rainfall should be measured.

**Outfall #003 – Soil Borrow Area Outfall**

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

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

Benchmarks

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

It is the permit writer’s best professional judgment to require monitoring only for the parameters previously listed as effluent limitations. Based on the nature of the discharge as stormwater, the facility does not have reasonable potential to cause impairment to the receiving stream for the following parameters: COD, TSS, Settleable Solids and Oil & Grease. Therefore, benchmarks will be placed in the permit rather than effluent limitations. The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the EPA MSGP. The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will again be necessary to protect water quality.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*			YES	**
PRECIPITATION	Inches	9	*			YES	**
COD	mg/L	9	***			YES	**
TSS	mg/L	9	***			YES	**
pH	SU	1	6.5 – 9.0			YES	**
SETTLEABLE SOLIDS	mL/L/hr	9	***			YES	**
OIL & GREASE	mg/L	9	***			YES	**

\* - Monitoring requirement only.

\*\* - Parameter not previously established in previous state operating permit. Outfalls previously covered under MO-RA permit, which did not contain effluent parameters.

\*\*\* - Monitoring only with a Benchmark Value in permit.

**Basis for Limitations Codes:**

- |  |                                    |
|--|------------------------------------|
| 7. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 8. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 9. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 10. Lagoon Policy                        | 10. TMDL or Permit in lieu of TMDL |
| 11. Ammonia Policy                       | 11. WET Test Policy                |
| 12. Antidegradation Review               |                                    |

**OUTFALL #003 – DERIVATION AND DISCUSSION OF LIMITS:**

- **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.
- **Precipitation.** Monitoring only requirement. Due to the nature of the discharge being stormwater runoff, the permit writer has used best professional judgment to include monitoring only for this parameter.

- **Chemical Oxygen Demand (COD)**. Monitoring only requirement. Due to the nature of the discharge being stormwater in contact with wood recycling, concrete recycling and land disturbance activities, the permit writer uses best professional judgment to include monitoring only for this parameter. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 90 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and the Environmental Protection Agency’s (EPA’s) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP).
- **Total Suspended Solids (TSS)**. Monitoring only requirement. Due to the nature of the discharge being stormwater in contact with wood recycling, concrete recycling and land disturbance activities, the permit writer uses best professional judgment to include monitoring only for this parameter. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 80 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and the EPA’s MSGP.
- **pH**. – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Settleable Solids**. Monitoring only requirement. Due to the nature of the discharge being stormwater in contact with wood recycling, concrete recycling and land disturbance activities, the permit writer uses best professional judgment to include monitoring only for this parameter. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 1.5 mg/L. This value is consistent other permits that have similar industrial activities and the EPA’s MSGP.
- **Oil & Grease**. Monitoring only requirement. Due to the nature of the discharge being stormwater in contact with wood recycling, concrete recycling and land disturbance activities, the permit writer uses best professional judgment to include monitoring only for this parameter. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 15 mg/L. This value is consistent other permits that have similar industrial activities and the EPA’s MSGP.

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Precipitation	once/day	once/quarter
COD	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter
Settleable Solids	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter

**Sampling Frequency Justification:**

Sampling and Reporting Frequency shall be once per quarter. Due to the nature of the discharge being stormwater, this frequency will provide adequate data on the quality of stormwater runoff.

**Sampling Type Justification**

Sampling Type shall be grab. Due to the nature of the discharge being stormwater, grab samples will provide representative sampling for each discharge event.

**Outfall #004 – Soil Borrow Area and Shingle Processing Facility Outfalls**

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

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

Benchmarks

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

It is the permit writer’s best professional judgment to require monitoring only for the parameters previously listed as effluent limitations. Based on the nature of the discharge as stormwater, the facility does not have reasonable potential to cause impairment to the receiving stream for the following parameters: COD, TSS, Settleable Solids and Oil & Grease. Therefore, benchmarks will be placed in the permit rather than effluent limitations. The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the EPA MSGP. The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will again be necessary to protect water quality.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	YES	**
PRECIPITATION	Inches	9	*			YES	**
COD	mg/L	9	90		60	YES	**
TSS	mg/L	9	80		50	YES	**
pH	SU	1	6.5–9.0		6.5-9.0	YES	**
SETTLEABLE SOLIDS	mL/L/hr	9	1.5		1.0	YES	**
OIL & GREASE	mg/L	9	15		10	YES	**

\* - Monitoring requirement only.

\*\* - Parameter not previously established in previous state operating permit. Outfalls previously covered under MO-RA permit, which did not contain effluent parameters.

\*\*\* - Monitoring only with a Benchmark Value in permit.

**Basis for Limitations Codes:**

- |   |                                    |
|---|------------------------------------|
| 13. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 14. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 15. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 16. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 17. Ammonia Policy                        | 11. WET Test Policy                |
| 18. Antidegradation Review                |                                    |

**OUTFALL #004 – DERIVATION AND DISCUSSION OF LIMITS:**

- **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.
- **Precipitation.** Monitoring only requirement. Measuring the amount of rainfall 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.

- **Chemical Oxygen Demand (COD).** Effluent limitations of 90 mg/L as a MDL and 60 mg/L as a AML are applicable to this facility. Due to the shingle processing operations, the permit writer has used best professional judgment to require effluent limitations for this parameter. This activity is also associated with Outfall #001; therefore, those limits will be implemented at Outfall #004.
- **Total Suspended Solids (TSS).** Effluent limitations of 80 mg/L as a MDL and 50 mg/L as a AML are applicable to this facility. Due to the shingle processing operations, the permit writer has used best professional judgment to require effluent limitations for this parameter. This activity is also associated with Outfall #001; therefore, those limits will be implemented at Outfall #004.
- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Settleable Solids.** Effluent limitations of 1.5 mL per L per hour as a MDL and 1.0 mL per L per hour as a AML are applicable to this facility. Due to the shingle processing operations, the permit writer has used best professional judgment to require effluent limitations for this parameter. This activity is also associated with Outfall #001; therefore, those limits will be implemented at Outfall #004.

**Oil & Grease.** Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. Due to the shingle processing operations, the permit writer has used best professional judgment to require effluent limitations for this parameter.

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Precipitation	once/day	once/quarter
COD	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter
Settleable Solids	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter

**Sampling Frequency Justification:**

Sampling and Reporting Frequency shall be once per quarter. Due to the nature of the discharge being stormwater, this frequency will provide adequate data on the quality of stormwater runoff.

**Sampling Type Justification**

Sampling Type shall be grab. Due to the nature of the discharge being stormwater, grab samples will provide representative sampling for each discharge event.

## **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. 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.

### **PUBLIC NOTICE:**

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. 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 is began on August 29, 2014 and ended on September 29, 2014. The permittee submitted comments during this period. The comments and the Department's responses are listed below.

1. The permittee requested time to make revisions to the SWPPP once the permit is issued. The Department granted a 90-day time period in special condition number #10.
2. The permittee requested that activities for dust control be included in the permit for Outfall #001 and #002. The Department has included these activities in the facility descriptions. This does not affect the effluent parameters, as appropriate pollutant monitoring exists for such activities.
3. The permittee requests the inclusion of shingle shredding operations for Outfall #004. The Department has updated the facility description for Outfall #004 and has included appropriate effluent limitations and monitoring associated with this activity at Outfall #004.

The revisions made to the permit as a result of these comments warrant an additional Public Notice period. The second Public Notice period began on October 31, 2014 and ended on December 1, 2014. No comments were received during this Public Notice period.

**DATE OF FACT SHEET:** JULY 14, 2014

### **COMPLETED BY:**

**LOGAN COLE, ENVIRONMENTAL SPECIALIST  
MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
OPERATING PERMITS SECTION - INDUSTRIAL UNIT  
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REVISED  
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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(a)(1);
    - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
    - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
  - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
    - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
    - ii. Any upset which exceeds any effluent limitation in the permit.
    - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
  - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
  4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
  5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
  6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
  7. **Discharge Monitoring Reports.**
    - a. Monitoring results shall be reported at the intervals specified in the permit.
    - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
    - c. Monitoring results shall be reported to the Department no later than the 28<sup>th</sup> day of the month following the end of the reporting period.
- b. Notice.
    - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
    - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
  - c. Prohibition of bypass.
    - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
      1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      3. The permittee submitted notices as required under paragraph 2. b. of this section.
    - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
    - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
    - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      - ii. The permitted facility was at the time being properly operated; and
      - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
    - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

## Section C – Bypass/Upset Requirements

1. **Definitions.**
  - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
  - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
  - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

## Section D – Administrative Requirements

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



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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittee with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
  - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
  - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
  - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
  - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
  - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



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

**FOR AGENCY USE ONLY**

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

**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- 0129810 Expiration Date 8/27/2014
  - 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 PINK HILL ACRES, INC. DEMOLITION LANDFILL		TELEPHONE WITH AREA CODE (816) 921-8200	
		FAX (816) 921-8251	
ADDRESS (PHYSICAL) 3500 NW HIGHWAY 7	CITY BLUE SPRINGS	STATE MO	ZIP CODE 64014

**3. OWNER**

NAME PINK HILL ACRES, INC.		E-MAIL ADDRESS kbowen@r2ronline.n	TELEPHONE WITH AREA CODE (816) 921-8200	
			FAX (816) 921-8251	
ADDRESS (MAILING) 2501 MANCHESTER TRAFFICWAY	CITY KANSAS CITY	STATE MO	ZIP CODE 64129	

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

**4. CONTINUING AUTHORITY**

NAME PINK HILL ACRES, INC.		TELEPHONE WITH AREA CODE (816) 921-8200	
		FAX (816) 921-8251	
ADDRESS (MAILING) 2501 MANCHESTER TRAFFICWAY	CITY KANSAS CITY	STATE MO	ZIP CODE 64129

**5. OPERATOR**

NAME PINK HILL ACRES, INC.		CERTIFICATE NUMBER 1961	TELEPHONE WITH AREA CODE (816) 921-8200	
			FAX (816) 921-8251	
ADDRESS (MAILING) 2501 MANCHESTER TRAFFICWAY	CITY KANSAS CITY	STATE MO	ZIP CODE 64129	

**6. FACILITY CONTACT**

NAME KERRY BOWEN		TITLE GENERAL MANAGER	TELEPHONE WITH AREA CODE (816) 918-4445	
			FAX (816) 921-8251	

**7. ADDITIONAL FACILITY INFORMATION**

- 7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)
- 001 SW ¼ NE ¼ Sec 18 T 49N R 30W Jacks County  
 UTM Coordinates Easting (X): +3903460 Northing (Y): -09415547  
*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*
- 002 SW ¼ NE ¼ Sec 18 T 49N R 30W Jacks County  
 UTM Coordinates Easting (X): +3909405 Northing (Y): -09415542
- 003 SW ¼ NW ¼ Sec 18 T 49N R 30W Jacks County  
 UTM Coordinates Easting (X): 389958 Northing (Y): 4324614
- 004 SE ¼ NW ¼ Sec 18 T 49N R 30W Jacks County  
 UTM Coordinates Easting (X): 390260 Northing (Y): 4324236

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

- 001 - SIC 4953 and NAICS \_\_\_\_\_ 002 - SIC 4953 and NAICS \_\_\_\_\_  
 003 - SIC 4953 and NAICS \_\_\_\_\_ 004 - SIC 4953 and NAICS \_\_\_\_\_

KC  
Jacks Co.

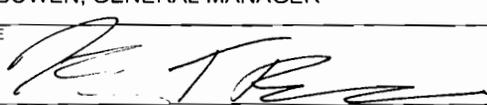
**8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION**  
**(Complete all forms that are applicable.)**

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 <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
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 <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

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

NAME WILLIAM H. DAYTON JR.			
ADDRESS 26705 E. ARGO DRIVE	CITY INDEPENDENCE	STATE MO	ZIP CODE 64057

**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) KERRY BOWEN, GENERAL MANAGER	TELEPHONE WITH AREA CODE (816) 918-4445
SIGNATURE 	DATE SIGNED 2-24-14

MO 780-1479 (01-09)

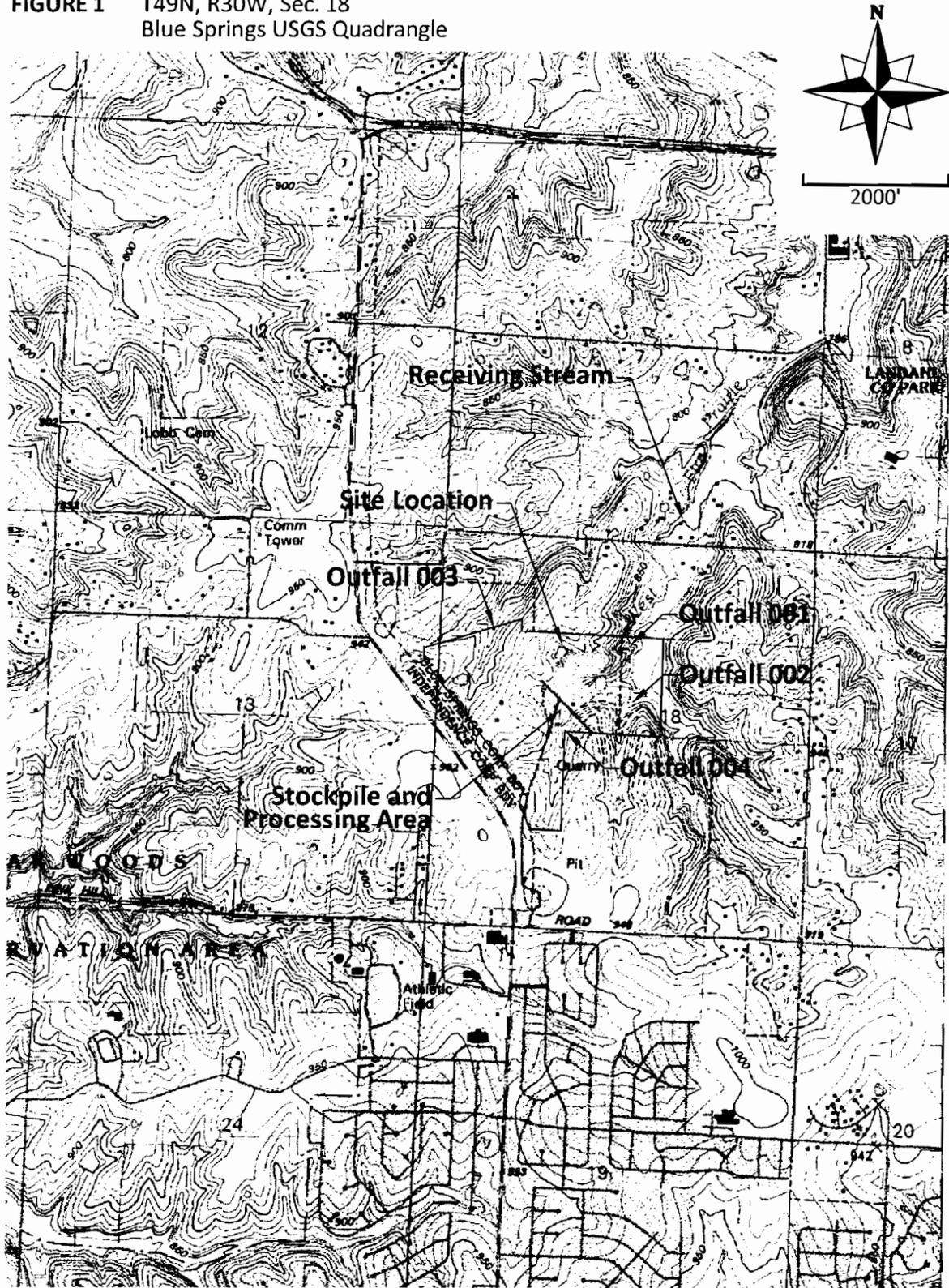
**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.**

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

HAVE YOU INCLUDED:

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

**FIGURE 1** T49N, R30W, Sec. 18  
Blue Springs USGS Quadrangle





FEB 27 2017

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

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY  
 Pink Hill Acres Demolition Landfill

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER  
 MO-0129810

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) \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 SEC \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ See Attached COUNTY \_\_\_\_\_

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
<u>See Attached</u>	

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Construction & Demolition Landfill and Shingle Recycling (Outfall 001)  
 Construction & Demolition Landfill (Outfall 002)  
 Borrow Area (Outfalls 003 & 004)

Sample results for Outfall 001 are included with this application.

Outfall 002 is for a portion of the C&D landfill that has not yet been developed and therefore has never discharged. Therefore, no results for Outfall 002 are available for this application.

Outfalls 003 and 004 are currently permitted under a general land disturbance permit (MO-RA01087) that did not require sampling. Therefore, no results for Outfall 003 or 004 are available for this application.

### Form C – Pink Hills Demolition Landfill Outfall Information

Outfall #001 – Active Construction & Demolition Landfill and Shingle Recycling – SIC #4953  
Stormwater Retention Basin

Legal Description: SW ¼, NE ¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X=+3903460, Y=-09415547  
Receiving Stream: Tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) 422.00  
USGS Basin & Sub-watershed No.: 10300101 - 208

Outfall #002 – Active Construction & Demolition Landfill – SIC #4953  
Stormwater runoff / sedimentation Basin

Legal Description: SW ¼, NE ¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X=+3903405, Y=-09415542  
Receiving Stream: Tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) 422.00  
USGS Basin & Sub-watershed No.: 10300101 - 208

Outfall #003 – Soil borrow area  
Stormwater runoff from soil borrow area

Legal Description: SW ¼, NW ¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X=389958, Y=4324614  
Receiving Stream: Tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) 422.00  
USGS Basin & Sub-watershed No.: 10300101 - 208

Outfall #004 – Soil borrow area  
Stormwater runoff from soil borrow area

Legal Description: SE ¼, NW ¼, Sec. 18, T49N, R30W, Jackson County  
UTM Coordinates: X=3903460, Y=4324236  
Receiving Stream: Tributary to West Fire Prairie Creek (U)  
First Classified Stream and ID: Little Blue River (P) 422.00  
USGS Basin & Sub-watershed No.: 10300101 - 208



**2.40 CONTINUED**

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

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

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
001	Shingle Recycling Cooling & Emission Control Water	Varies	Varies	Minimal	Minimal	Minimal	Minimal	Varies

**2.50 MAXIMUM PRODUCTION**

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

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

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

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

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

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

**2.60 IMPROVEMENTS**

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

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

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

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

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

3.00 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
Chemical Oxygen Demand	Outfall 001 - Stormwater		
Total Organic Carbon	Outfall 001 - Stormwater		
Total Suspended Solids	Outfall 001 - Stormwater		
Ammonia	Outfall 001 - Stormwater		
pH	Outfall 001 - Stormwater		
Fluoride	Outfall 001 - Stormwater		
Sulfate	Outfall 001 - Stormwater		
Aluminum	Outfall 001 - Stormwater		
Boron	Outfall 001 - Stormwater		
Iron	Outfall 001 - Stormwater		
Magnesium	Outfall 001 - Stormwater		
Manganese	Outfall 001 - Stormwater		
Arsenic	Outfall 001 - Stormwater		
Copper	Outfall 001 - Stormwater		
Selenium	Outfall 001 - Stormwater		
Zinc	Outfall 001 - Stormwater		

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)
Engineering Surveys & Services	1113 Fay Street Columbia, MO 65201	(573) 449-2646	All Analysis Listed

3.30 CERTIFICATION

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Kerry Bowen, General Manager

TELEPHONE NUMBER WITH AREA CODE

(816) 918-4445

SIGNATURE (SEE INSTRUCTIONS)



DATE SIGNED

2-24-14

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

FORM C  
TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.  
001

INTAKE AND EFFLUENT CHARACTERISTICS

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

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)			
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		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	
A. Biochemical Oxygen Demand (BOD)	<6				<6		13	mg/L				
B. Chemical Oxygen Demand (COD)	74.7				35.1		13	mg/L				
C. Total organic Carbon (TOC)	31				21.8		3	mg/L				
D. Total Suspended Solids (TSS)	68				24		13	mg/L				
E. Ammonia (as N)	1.4				0.4		13	mg/L				
F. Flow	VALUE 0.9439				VALUE 0.1650		13	MGD		VALUE		
G. Temperature (winter)	VALUE NT				VALUE NT		NT	°C		VALUE		
H. Temperature (summer)	VALUE NT				VALUE NT		NT	°C		VALUE		
I. pH	MINIMUM 6.0	MAXIMUM 8.3		MAXIMUM			SU	STANDARD UNITS				

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

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-6)	X						0.35		3	mg/L				
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. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen, Total Organic (as N)		X												
H. Oil and Grease		X	<1.0				<1.0		3	mg/L				
I. Phosphorus (as P), Total (7723-14-0)		X												
J. Sulfate (as SO <sup>4</sup> ) (14808-79-8)	X		1040				387.4		13	mg/L				
K. Sulfide (as S)		X												
L. Sulfite (as SO <sup>3</sup> ) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)	X		3890				1232		13	ug/L				
O. Barium, Total (7440-39-3)		X	<100				<100		3	ug/L				
P. Boron, Total (7440-42-8)	X		2400				1410		3	ug/L				
Q. Cobalt, Total (7440-48-4)		X	<50				<50		3	ug/L				
R. Iron, Total (7439-89-6)	X		2590				1063		13	ug/L				
S. Magnesium, Total (7439-95-4)	X		54.1				27.4		3	ug/L				
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)	X		494				318		3	ug/L				
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 (1) CONCENTRATION	(2) MASS	B. MAXIMUM 30 DAY VALUE (if available)	(1) CONCENTRATION	(2) MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
			C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES					
<b>METALS, AND TOTAL PHENOLS</b>										
1M. Antimony, Total (7440-36-9)		X	<50			<50		ug/L		3
2M. Arsenic, Total (7440-38-2)	X		7			2		ug/L		3
3M. Beryllium, Total (7440-41-7)		X	<50			<50		ug/L		3
4M. Cadmium, Total (7440-43-9)		X	<5			<5		ug/L		3
5M. Chromium III (16065-83-1)		X	<10			<10		ug/L		3
6M. Chromium VI (18540-29-9)		X	<10			<10		ug/L		3
7M. Copper, Total (7440-50-8)	X		7			2		ug/L		13
8M. Lead, Total (7439-92-1)		X	<5			<5		ug/L		3
9M. Mercury, Total (7439-97-6)		X	<0.5			<0.5		ug/L		3
10M. Nickel, Total (7440-02-0)		X	<10			<10		ug/L		3
11M. Selenium, Total (7782-49-2)	X		48			9		ug/L		13
12M. Silver, Total (7440-22-4)		X	<5			<5		ug/L		3
13M. Thallium, Total (7440-28-0)		X	<100			<100		ug/L		3
14M. Zinc, Total (7440-66-6)	X		289			80		ug/L		13
15M. Cyanide, Amenable to Chlorination		X								
16M. Phenols, Total		X								
<b>RADIOACTIVITY</b>										
(1) Alpha Total		X								
(2) Beta Total		X								
(3) Radium Total		X								
(4) Radium 226 Total		X								