STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

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

Permit No.	MO-0136981
Owner:	Kinder Morgan Energy Partners OLP-C
Address:	500 Dallas Street, Suite 1000 Houston, TX 77002
Continuing Authority:	Kinder Morgan Terminals, Lower Rivers Region
Address:	7116 Highway 22 Sorrento, LA 70778
Facility Name:	Kinder Morgan St. Louis Liquid Terminal
Facility Address:	2425 S. Wharf Street St. Louis, MO 63104
Legal Description:	See page 2
UTM Coordinates:	See page 2
Receiving Stream:	See page 2
First Classified Stream and ID:	See Page 2
USGS Basin & Sub-watershed No.:	See page 2

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

FACILITY DESCRIPTION

See page 2

This permit authorizes only 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 Section 644.051.6 of the Law.

August 10, 2012
Effective Date

Sara Parker Pauley
Sara Parker Pauley, Director, Department of Natural Resources

August 9, 2017
Expiration Date

John Madras
John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued)

Outfalls #001 – SIC # 4226 and SIC #4491
Legal Description: Landgrant #00298, City of St. Louis
UTM Coordinates: X=744218, Y=4276102
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Design Flow: 0.1 MGD
Average Flow: 0.03 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P) (1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

Outfalls #002 – SIC # 4226 and SIC #4491
Legal Description: Landgrant #00298, City of St. Louis
UTM Coordinates: X=744228, Y=4276122
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Design Flow: 0.1 MGD
Average Flow: 0.03 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P) (1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

Outfalls #003 – SIC # 4226 and SIC #4491
Legal Description: Landgrant #00298, City of St. Louis
UTM Coordinates: X=744240, Y=4276143
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Design Flow: 0.1 MGD
Average Flow: 0.04 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P) (1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfalls #001-003						
Flow	GPD	*		*	once/quarter**	24 hr. total
Chemical Oxygen Demand	mg/L	*		*	once/quarter**	grab
Total Suspended Solids	mg/L	*		*	once/quarter**	grab
pH	SU	*		*	once/quarter**	grab
Oil & Grease	mg/L	*		*	once/quarter**	grab
Bromide	mg/L	*		*	once/quarter**	grab
Diethylene Glycol	mg/L	*		*	once/quarter**	grab
Ethylene Glycol	mg/L	*		*	once/quarter**	grab
Chloride	mg/L	*		*	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE JANUARY 28, 2013. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED **Part I** STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** 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 28th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

C. SPECIAL CONDITIONS

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

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:
      (i) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (ii) 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 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. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

5. This permit does not authorize the discharge of waters other than storm waters.

6. Water Quality Standards.

   (a) 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.

7. All involved personnel shall be trained in material handling, storage, and housekeeping of maintenance areas. Upon request, proof of training shall be submitted to the Department.

8. An annual operating report must be submitted each year (any reporting requirements contained in the attached "Standard Conditions" must be followed). The report shall detail any unusual occurrences such as spills, tank failures or overflows, ruptured piping, fish kills, firefighting activities, or other upsets which result in any loss of product. The report shall also detail any remedial work undertaken to recover product or clean up the site. The report must also indicate if nothing unusual occurred.

C. SPECIAL CONDITIONS cont.

9. The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 30 days and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to DNR 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 storm water. Minimum BMPs are listed in SPECIAL CONDITIONS #11.
(b) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspections must include observation and evaluation 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 DNR 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 DNR.

10. An individual shall be designated by the permittee as responsible for environmental matters. Staff of the permitted facility shall inspect, on workdays, any structures that function to prevent pollution of storm water or to remove pollutants from storm water and of the facility in general to ensure that any Best Management Practices are continually implemented and effective.

11. Permittee shall adhere to the following minimum Best Management Practices:

(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 BMP's 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.

12. 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.

D. SAMPLING REQUIREMENTS AND BENCHMARK LIMITATIONS

1. The following Benchmark Limitation is considered necessary to protect existing water quality and should not be exceeded during discharges resulting from a precipitation event exceeding 0.1 inches during a 24 hour period. The BMPs at the facility should be designed to meet this limit during rainfall event up to the 10 year, 24 hour rain event. The Benchmark does not constitute numeric effluent limitations. **A benchmark exceedance alone, therefore, is not a permit violation**. If a sample exceeds a benchmark concentration a review of the facilities SWPPP and BMPs shall take place to determine whether any improvement or additional controls are needed to reduce that pollutant in the storm water discharge. The facility may demonstrate via a Corrective Action Report that the benchmark limitation cannot be achieved through the application of BMPs representing the available technology and the benchmark is not feasible because no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice. Upon concurrence with a Corrective Action report by the Department, the facility may return to normal quarterly reporting. This evaluation must be kept on file with the SWPPP. Failure to evaluate and improve BMPs to address a Benchmark Limitation exceedance is a permit violation.

BENCHMARK TABLE:

Parameter	Daily Maximum Limit
Total Suspended Solids (TSS)	50 mg/L
Chemical Oxygen Demand (COD)	90 mg/L
pH	6.5-9.0 Standard Units
Oil and Grease	15 mg/L

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF NEW FACILITY
OF
MO-0136981
KINDER MORGAN ST. LOUIS LIQUID TERMINAL

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: IND
Facility SIC Code(s): 4226 and 4491

Facility Description:
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.

Kinder Morgan St. Louis Liquid Terminal is a “terminal for hire” engaged in the receipt, storage, and redistribution of bulk liquid products. Material is received at the facility via barge or rail car and subsequently redistributed via rail car or tank truck. The facility is currently implementing improvements to its above ground bulk storage tank facility. A key component of the facility improvement is the installation of an impermeable liner over the gravel floor portions of the secondary containment system. This liner installation was completed in late October 2011, and results in the routine accumulation of stormwater within the secondary containment system, thus need for frequent discharge to the Mississippi River. The accumulated stormwater will continue to be managed through a temporary discharge permit to the St. Louis Metropolitan Sewer District (MSD) until the NPDES stormwater permit is issued.

Outfalls 001 and 002 will be constructed during the first phase of the site improvements in early 2012 while outfall 003 is anticipated to be completed in 2013/2014. The overall containment area is approximately 28,000 square feet with a working capacity of approximately 1.6 million gallons. Assuming an average monthly rainfall of 3.5 inches, the anticipated monthly accumulation and discharge is approximately 62,000 gallons. This estimate is based on the average monthly precipitation for the calendar years 2006 through 2010 for St. Louis.

Furthermore, because of the piping and storage tanks within the system are sealed and are regularly inspected, Kinder Morgan does not anticipate any entrainment of the chemicals stored in the tank systems into the stormwater. As noted in the WQAR, eight potential pollutants of concern were identified: COD; TSS; Oil and Grease; pH; Chloride; Ethylene Glycol; Diethylene Glycol; and Bromide. These parameters were derived based on the types of chemicals handled within the above ground bulk storage tank facility.

On February 14, 2012, Kinder Morgan collected a representative sample of stormwater from the secondary containment system for analysis of the aforementioned parameters. The results of the test confirmed that the precipitation accumulated within the secondary containment system was of a quality typical of uncontaminated stormwater run-off, and there was no indication that any of the chemicals in the tanks systems were entrained into this accumulated water. The facility also planned to retain their general permit for hydrostatic testing.

Application Date: 04/06/2012

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.047	BMP	Stormwater	0.0
002	0.047	BMP	Stormwater	0.0
003	0.062	BMP	Stormwater	0.0

Outfall #001 – Landgrant 00298; SIC # 4226 and SIC #4491
Legal Description: T45N, R7E, City of St. Louis
UTM Coordinates: X=744218, Y=4276102
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Area of Impervious Surface: approx. 9,000 square feet
Design Flow: 0.1 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P)(1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

Outfall #002 - Landgrant 00298; SIC # 4226 and SIC #4491
Legal Description: T45N, R7E, City of St. Louis
UTM Coordinates: X=744228, Y=4276122
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Area of Impervious Surface: approx. 8,000 square feet
Design Flow: 0.1 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P)(1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

Outfall #003 - Landgrant 00298; SIC # 4226 and SIC #4491
Legal Description: T45N, R7E, City of St. Louis
UTM Coordinates: X=744240, Y=4276143
Stormwater Discharge; outfall is for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.
Area of Impervious Surface: approx. 11,000 square feet
Design Flow: 0.1 MGD
Receiving Stream: Mississippi River (P)
First Classified Stream and ID: Mississippi River (P)(1707.02)
USGS Basin & Sub-watershed No.: 07140101-0403

Receiving Water Body's Water Quality & Facility Performance History:
No history for this facility. No receiving water information.

Comments:
This is a new facility operating permit application. On behalf of Kinder Morgan, Environ prepared the Antidegradation Report Proposed Kinder Morgan St. Louis Terminal dated November 2011. At the location, Kinder Morgan has an existing general permit for hydrostatic testing of petroleum related oil and gas pipelines and storage tanks (MOG670106). The applicant is applying for a site-specific permit for their new above ground storage stormwater runoff and releases from secondary containment.

Part II – Operator Certification Requirements

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

☒ Not Applicable;
This facility is not required to have a certified operator.

Part III – Receiving Stream Information

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 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)]

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/or 1st 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*	12-DIGIT HUC	EDU**
Mississippi River	P	1707.02	AQL, DWS, IND, IRR, LWW, SCR	07140101-0403	Ozark/Apple/Joachim

* - 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).
** - Ecological Drainage Unit

RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Mississippi River (P)*	50,295	53,791	60,349

* Low flow data obtained from USGS gauging station 07010000, which is approximately 2.3 miles upstream. Data from 11/14/1962 -11/14/2010.

MIXING CONSIDERATIONS TABLE:

MIXING ZONE (CFS) [10 CSR 20-7.031(4)(A)4.B.(III)(a)]		ZONE OF INITIAL DILUTION (CFS) [10 CSR 20-7.031(4)(A)4.B.(III)(b)]	
7Q10	30Q10	1Q10	7Q10
13,448	15,087	1,257	1,345

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements recommended at this time.

Part IV – 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.

☒ - New facility, backsliding does not apply.

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.

☒ - New and/or expanded discharge, please see **APPENDIX A – ANTIDEGRADATION ANALYSIS.**

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(3)(B)], …An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

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://dnr.mo.gov/env/wpp/pub/index.html, 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.

PRETREATMENT PROGRAM:
The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

☒ Not Applicable;
The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

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.

REMOVAL EFFICIENCY:
Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

☒ Not Applicable;
Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):
Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

☒ Not applicable.
This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

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.

As Kinder Morgan is a large industrial site, in the development of the SWPPP, the facility may want to use the draft SWPPP template provided by EPA and consult the Industrial Stormwater Fact Sheets developed by EPA (http://cfpub.epa.gov/npdes/stormwater/swsectors.cfm) to ensure the SWPPP is as comprehensive as possible. Fact sheets of interest may include the Sector P: Motor Freight Transportation Facilities, and Rail Transportation Facilities and Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations. The fact sheets provide further references and resources for developing the SWPPP.

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.

40 CFR 122.41(M) - BYPASSES:
The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

☒ Not Applicable;
This facility does not bypass.

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

☒ Not Applicable;
This facility does not discharge to a 303(d) listed stream.

Part V – Benchmark Limits Determination

BENCHMARK TABLE: Outfall #001, #002, and #003 – Stormwater Outfalls

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM LIMIT BENCHMARK	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	**
CHEMICAL OXYGEN DEMAND	MG/L	9	90	**
TOTAL SUSPENDED SOLIDS	MG/L	9	50	**
PH	SU	1	6.5-9.0	**
OIL & GREASE	MG/L	1,2	10	**
BROMIDE	MG/L	1	*	**
CHLORIDE	MG/L	2	*	**

* - Monitoring requirement only.

**- Benchmark parameters established for a new facility.

Basis for Limitations Codes:

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

OUTFALL #001, #002, & #003 – DERIVATION AND DISCUSSION OF BENCHMARKS:

- **Benchmarks.** Benchmarks for stormwater discharges have been developed for this permit. Sampling of benchmark pollutants serves as a means to evaluate the stormwater Best Management Practices effectiveness as required in the SWPPP.

- **Minimum Sampling and Reporting Frequency Requirements**. To assess the efficiency of the implemented BMPs, stormwater discharges sampling and reporting will be done quarterly.

- **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.

- **Chemical Oxygen Demand (COD).** Applicant proposed biochemical oxygen demand as a pollutant of concern; however, as it is the department's best professional judgment that chemical oxygen demand would be more protective effluent limits. As a monitoring requirement, these effluent limits are consistent with other industrial stormwater facilities and have been demonstrated to be achievable with SWPPP and existing technology.

- **Total Suspended Solids (TSS) Benchmark.** Monitoring requirement only. The Missouri Water Quality Standard outlined in 10 CSR 20-7.015 proposed 45 mg/L as a Weekly Average and 30 mg/L as a Monthly Average for TSS to ensure compliance with Effluent Limitations. For this permit, a TSS benchmark is established utilizing best professional judgment to measure if the stormwater BMPs are effective. The 50 mg/L daily maximum benchmark is consistent with the EPA's Multi Sector General Permit which is used in other states to permit stormwater.

- **pH**. Monitoring requirement only. In accordance with [10 CSR 20-7.031(4)(E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.

- **Oil & Grease.** In accordance with [10 CSR 20-7.031, Table A], the conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. Monitoring requirement only.

- **Bromide.** Monitoring requirement only to determine if reasonable potential exists to exceed water quality standards.

- **Diethylene Glycol.** Monitoring requirement only. Per 10 CSR 20-7.031(1)(A) and (3)(1)2B, for substances not listed in Tables A and B, 0.3 of the median lethal concentration, or the no observed acute effect concentration for representative species, may be used to determine absence of acute toxicity. The median lethal concentration for daphnia magna (water flea) fish according to the material safety data sheet is 48,900 mg/L.

  LC_{50}= 48,900 mg/L
  WLA_a= (0.3*LC_{50}) = 0.3*48,900 = 14,670 mg/L
  LTA_a= 14,670 (0.321) = 4,709 mg/L [CV = 0.6, 99th Percentile]

  MDL= 4,709 (3.11) = 14,645 mg/L [CV = 0.6, 99th Percentile]
  AML= 4,709 (1.55) = 7,299 mg/L [CV = 0.6, 95th Percentile, n=4]

- **Ethylene Glycol**. Monitoring requirement only. Per 10 CSR 20-7.031(1)(A) and (3)(1)2B, for substances not listed in Tables A and B, 0.3 of the median lethal concentration, or the no observed acute effect concentration for representative species, may be used to determine absence of acute toxicity. The median lethal concentration for rainbow trout fish according to the material safety data sheet is 18,000 mg/L.

  LC_{50}= 18,000 mg/L
  WLA_a= (0.3*LC_{50}) = 0.3*18,000 = 5,400 mg/L
  LTA_a= 5,400 (0.321) = 1,733 mg/L [CV = 0.6, 99th Percentile]

  MDL= 1,733 (3.11) = 5,390 mg/L [CV = 0.6, 99th Percentile]
  AML= 1,733 (1.55) = 2,686 mg/L [CV = 0.6, 95th Percentile, n=4]

- **Chloride.** Monitoring requirement only. Warm-water Protection of Aquatic Life CMC = 860 mg/L [10 CSR 20-7.031, Table A]. As discharge is dependent on precipitation, acute criteria apply. Background TRC = 21.69 mg/L. Drinking water standard= 250 mg/L. Drinking water criteria is more protective than aquatic life criteria.

  Drinking Water Effluent Limits
  WLA= 250 mg/L

  AML= WLA= 250 mg/L
  MDL= AML*2.01= 250 (2.01) = 503 mg/L [CV = 0.6, 99th Percentile]

Part VI – Finding of Affordability

Pursuant to Section 644.145, RSMo., the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

☒ Not Applicable;
The Department is not required to determine findings of affordability because the facility is not a **combined or separate sanitary sewer system for a publically-owned treatment works.**

Part VII – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

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 tentatively scheduled to begin in July 2012.

DATE OF FACT SHEET: 23 JULY 2012

COMPLETED BY:

JOY JOHNSON, ENVIRONMENTAL SPECIALIST III
NPDES PERMITS UNIT
PERMITTING AND ENGINEERING SECTION
WATER PROTECTION PROGRAM
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Appendices

APPENDIX A– ANTIDEGRADATION ANALYSIS:

Water Quality and Antidegradation Review

For the Protection of Water Quality and
Determination of Effluent Limits for Discharge to Mississippi River
By
Kinder Morgan St. Louis Terminal

January 2012

Table of Contents

1. FACILITY INFORMATION

FACILITY NAME: Kinder Morgan St. Louis Liquid Terminal NPDES #: NE W FACILITY

FACILITY TYPE/DESCRIPTION: Installation of three stormwater outfalls for the discharge of accumulated precipitation within a tank farm secondary containment system. Design flow of the three outfalls is 0.1 MGD, based on the capacity of the secondary containment system. Discharge is expected to be intermittent, as the tanks are sealed and the discharge is therefore dependent on precipitation.

COUNTY:	St. Louis City	EDU*:	Ozark/Apple/Joachim
12- DIGIT HUC:	07140101-0403	ECO-REGION:	Big River Floodplain/Mississippi River Alluvial Plain

* - Ecological Drainage Unit

OUTFALL	UTM COORDINATES:	LEGAL DESCRIPTION:
001	x= 744218; y= 4276102	Landgrant 00298
002	x= 744228 ; y= 4276122	Landgrant 00298
003	x= 744240; y= 4276143	Landgrant 00298

2. WATER QUALITY INFORMATION

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)] and federal Antidegradation policy at Title 40 Code of Federal Regulation (CFR) Section 131.12 (a), the Missouri Department of Natural Resources (MDNR) developed a statewide Antidegradation policy and corresponding procedures to implement the policy. A proposed discharge to a water body will be required to undergo a level of Antidegradation Review which documents that the use of a water body's available assimilative capacity is justified. Effective August 30, 2008, a facility is required to use *Missouri's Antidegradation Rule and Implementation Procedure (AIP)* for new and expanded wastewater discharges.

2.1. WATER QUALITY HISTORY:

No history for this facility. No receiving water information.

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	RECEIVING WATERBODY	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.047	BMPs	Mississippi River	0.0
002	0.047	BMPs	Mississippi River	0.0
003	0.062	BMPs	Mississippi River	0.0

3. RECEIVING WATERBODY INFORMATION

WATERBODY NAME	CLASS	WBID	LOW-FLOW VALUES (CFS)*			DESIGNATED USES**
			1Q10	7Q10	30Q10	
Mississippi River	P	1707.02	50,295	53,791	60,349	AQL. DWS, IND, IRR, LWW, SCR

* Low flow data obtained from USGS gaging station 07010000, which is approximately 2.3 miles upstream. Data from 11/14/1962 -11/14/2010.

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

RECEIVING WATER BODY SEGMENT #1: Mississippi River

Upper end segment* UTM coordinates: x= 744218; y= 4276102 (Outfall)

Lower end segment* UTM coordinates: x= 738974; y= 4268487 (confluence with Meramec River)

*Segment is the portion of the stream where discharge occurs. Segment is used to track changes in assimilative capacity and is bound at a minimum by existing sources and confluences with other significant water bodies.

4. GENERAL COMMENTS

Environ prepared, on behalf of Kinder Morgan, the *Antidegradation Report Proposed Kinder Morgan St. Louis Terminal d*ated November 2011. At the location, Kinder Morgan has an existing general permit for hydrostatic testing of petroleum related oil and gas pipelines and storage tanks (MOG670106). The applicant is applying for a site-specific permit for their new above ground storage stormwater runoff and releases from secondary containment. A map of the discharge locations is included in Appendix A. A Missouri Department of Conservation Level 2 Natural Heritage Review was obtained; identifying bald eagles may be present in the area (Appendix B). For the purpose of this review, applicant elected to perform an alternatives analysis in the absence of existing water quality to fulfill the requirements of the AIP. Information that was provided by the applicant in the submitted report and summary forms in Appendix C was used to develop this review document.

5. ANTIDEGRADATION REVIEW INFORMATION

The following is a review of the *Antidegradation* dated November 3, 2011.

5.1. TIER DETERMINATION

Below is a list of pollutants of concern reasonably expected to be in the discharge (see Appendix C: Tier Determination and Effluent Limit Summary). The pollutants of concern were determined based on the material to be stored in the above ground storage tanks. Pollutants of concern are defined as those pollutants "proposed for discharge that affects beneficial use(s) in waters of the state. POCs include pollutants that create conditions unfavorable to beneficial uses in the water body receiving the discharge or proposed to receive the discharge." (AIP, Page 7). Tier 2 was assumed for all POCs (see Appendix C). As discharge will occur during high flow conditions, not critical conditions, the Department determined that the size of the discharge (0.155 cfs) in comparison to the Mississippi River (53,791 cfs) would be insignificant. As part of the site-specific permit, Kinder Morgan will be required to develop a stormwater pollution prevention plan (SWPPP). The permit writer may elect to set benchmarks or effluent limits to ensure the selected best management practices in the SWPPP are protecting water quality.

Table 1. Pollutants of Concern and Tier Determination

POLLUTANTS OF CONCERN	TIER*	DEGRADATION	COMMENT
Chemical Oxygen Demand (COD)	**	Minimal	Monitoring only
Total Suspended Solids (TSS)	**	Minimal	Monitoring only
Oil and Grease	2	Minimal	Monitoring only
pH	***	Minimal	Monitoring only
Chloride	2	Minimal	Monitoring only
Ethylene Glycol	**	Minimal	Monitoring only
Diethylene Glycol	**	Minimal	Monitoring only
Bromide	**	Minimal	Monitoring only

* Tier assumed. Tier determination not possible: ** No in-stream standards for these parameters. *** Standards for these parameters are ranges

The following Antidegradation Review Summary attachments in Appendix D were used by the applicant:
☒ Tier Determination and Effluent Summary
☒ Attachment A, Tier 2 with significant degradation.

5.2. EXISTING WATER QUALITY

No existing water quality data was submitted. Tier 2 was assumed for all POCs (see Appendix C). As discharge will occur during high flow conditions, not critical conditions, the Department determined that the size of the discharge (0.155 cfs) in comparison to the Mississippi River (53,791 cfs) would be insignificant.

5.3. FACILITY EVALUATION OF POTENTIAL ALTERNATIVES

Missouri's antidegradation implementation procedures specify that if the proposed activity does result in significant degradation then a demonstration of necessity (i.e., alternatives analysis) and a determination of social and economic importance are required. This discharge is considered minimally degrading, however Kinder Morgan provided an alternatives analysis on the potential solutions to handling the accumulated stormwater in the secondary containment system.

The first non-degrading alternative of no discharge precludes the accumulation of stormwater within the tank farm secondary containment system by omitting the installation of an impervious liner and allowing infiltration of stormwater or requires holding of the accumulated stormwater for a period of time sufficient to facilitate natural evaporation. Although the absence of a liner system and corresponding stormwater accumulation would be a timely, effective and reliable at preventing new point source discharges, site operation requirements would not be met. Furthermore, the potential negative environmental impacts from not installing an adequate secondary containment system outweigh the potential impact derived from collection and discharge of stormwater. No discharge is not a practical option.

The second non-degrading alternative evaluated was a no exposure system to eliminate the accumulation of stormwater within the tank farm secondary containment system by covering the tank farm system with a roof system and partial or full weather-proof enclosure. By eliminating stormwater accumulation within the tank farm secondary containment system would require the construction of roof structures above the storage tanks and concrete walls of the secondary containment system. Due to the height of the storage tanks, a partial enclosure would likely be required to reduce wind driven precipitation from entering the system. A partial to full enclosure is deemed to be highly reliable at preventing stormwater accumulations in the secondary containment system as well as the need for corresponding point source discharges. However, a no exposure system would require significant capital expenditures, a long design and construction period and an elevated level of ongoing maintenance. The no exposure option is practical option, but is not economically efficient with an estimated present worth cost in excess of $1,500,000.

The third non-degrading alternative evaluated was capture and off-site transport. The capture and off site transport alternative includes containerizing accumulations of stormwater form within the tank farm secondary containment system on an interim basis. As needed, the containerized water would be shipped to an offsite facility for disposal. To facilitate safe and effective working conditions, accumulated stormwater would need to be transferred to an interim holding tank as soon as practicable following a precipitation event. Removal and transfer of the accumulated stormwater would require the installation of dedicated collection sumps and pumps within each secondary containment system. Similar to the no exposure alternative, this alternative would be highly reliable at preventing point source discharges and reducing the potential for impacts to the adjacent river system. However, moderate capital expenditures, design period, and an elevated level of ongoing maintenance would be required. Additional fuel consumption and corresponding air emissions would arise from the need to continuously ship stormwater offsite. The capture and offsite transport option is a practical option, but is not economically efficient, with an estimated present worth cost of $126,000.

The fourth alternative evaluated was connection to the St. Louis Metropolitan Sewer District (MSD). However as MSD's sewer system is a combined sewer system which overflows without treatment to the Mississippi River during significant wet weather events, discharging to MSD is neither considered non-degrading nor does it afford reasonable monitoring opportunities. In discussions with MSD, MSD has indicated they would not be willing to accept the accumulated stormwater on a long term basis. Thus, discharge to MSD's system is not a practical alternative.

The fifth alternative evaluated was a site-specific stormwater permit, with the construction of three dedicated stormwater outfalls to the Mississippi River. In conjunction with the installation of the impermeable liner system, collection sumps, pumps, and outfall piping would be constructed. To facilitate safe and effective working conditions, accumulated stormwater would be visually evaluated, monitored as required, and discharged through the outfalls as soon as practicable following a precipitation event. Unlike alternatives two and three, the capital costs and project development timeline is much more concise. The present worth cost of the site specific stormwater permit is estimated to be $85,000. This is the base case and the preferred alternative. As part of the Antidegradation Review, Kinder Morgan began evaluating the necessary best management practices necessary to minimize impacts to the Mississippi River. As part of the site-specific permit, Kinder Morgan will be required to develop a stormwater pollution prevention plan (SWPPP).

The socio-economic benefit of the project is the extension of the plant operational life, and enabling the facility to bring in new customers. While the project may not add new long term jobs to the area, it will retain the existing jobs. Also, by adding additional stormwater controls to the site, this alternative will improve the quality of stormwater entering the Mississippi River.

5.3.1. REGIONALIZATION ALTERATIVE

Within Section II B 1. of the AIP, discussion of the potential for discharge to a regional waste water collection system is mentioned. The applicant provided discussion of this alternative. MSD is the regional authority in St. Louis. Due to the discharge being precipitation driven and MSD being a combined sewer system under a federal consent decree in eliminating overflows, MSD is not willing to accept the stormwater on a long term basis.

NEEDS A WAIVER TO PREVENT CONFLICT WITH AREA WIDE MANAGEMENT PLAN APPROVED UNDER SECTION 208 OF THE CLEAN WATER ACT AND/OR UNDER 10 CSR 20-6.010(3) (B) 1 OR 2 CONTINUING AUTHORITIES? (Y OR N) N

6. GENERAL ASSUMPTIONS OF THE WATER QUALITY AND ANTIDEGRADATION REVIEW

1. A Water Quality and Antidegradation Review (WQAR) assumes that [10 CSR 20-6.010(3) Continuing Authorities and 10 CSR 20-6.010(4) (D), consideration for no discharge] has been or will be addressed in a Missouri State Operating Permit or Construction Permit Application.
2. A WQAR does not indicate approval or disapproval of alternative analysis as per [10 CSR 20-7.015(4) Losing Streams], and/or any section of the effluent regulations.
3. Changes to Federal and State Regulations made after the drafting of this WQAR may alter Water Quality Based Effluent Limits (WQBEL).
4. Effluent limitations derived from Federal or Missouri State Regulations (FSR) may be WQBEL or Effluent Limit Guidelines (ELG).
5. WQBEL supersede ELG only when they are more stringent. Mass limits derived from technology based limits are still appropriate.
6. A WQAR does not allow discharges to waters of the state, and shall not be construed as a National Pollution Discharge Elimination System or Missouri State Operating Permit to discharge or a permit to construct, modify, or upgrade.
7. Limitations and other requirements in a WQAR may change as Water Quality Standards, Methodology, and Implementation procedures change.
8. Nothing in this WQAR removes any obligations to comply with county or other local ordinances or restrictions.
9. If the proposed treatment technology is not covered in 10 CSR 20-8 Design Guides, the treatment process may be considered a new technology. As a new technology, the permittee will need to work with the review engineer to ensure equipment is sized properly. The operating permit may contain additional requirements to evaluate the effectiveness of the technology once the facility is in operation. This Antidegradation Review is based on the information provided by the facility and is not a comprehensive review of the proposed treatment technology. If the review engineer determines the proposed technology will not consistently meet proposed effluent limits, the permittee will be required to revise their Antidegradation Report.

7. MIXING CONSIDERATIONS

MIXING CONSIDERATIONS TABLE:

MIXING ZONE (CFS) [10 CSR 20-7.031(4)(A)4.B.(III)(a)]		ZONE OF INITIAL DILUTION (CFS) [10 CSR 20-7.031(4)(A)4.B.(III)(b)]	
7Q10	30Q10	1Q10	7Q10
13,448	15,087	1,257	1,345

8. PERMIT LIMITS AND MONITORING INFORMATION

WASTELOAD ALLOCATION STUDY CONDUCTED (Y OR N):	USE ATTAINABILITY ANALYSIS CONDUCTED (Y OR N):	WHOLE BODY CONTACT USE RETAINED (Y OR N):
No	Yes*	No

*UAA conducted in 2005 and 2007 with the recommendation to only retain Secondary contact recreation.

WET TEST (Y OR N):	FREQUENCY:	AEC:	METHOD:
NO	NA	NA	NA

9. RECEIVING WATER MONITORING REQUIREMENTS

No receiving water monitoring requirements recommended at this time.

10. DERIVATION AND DISCUSSION OF LIMITS

10.1. OUTFALLS #001-#003: STORMWATER OUTFALLS LIMIT DERIVATION

As part of the site-specific permit, Kinder Morgan will be required to develop a stormwater pollution prevention plan (SWPPP). The permit writer may elect to set benchmarks or effluent limits to ensure the selected best management practices in the SWPPP are protecting water quality.

- **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.

- **Chemical Oxygen Demand (COD).** Applicant proposed biochemical oxygen demand as a pollutant of concern; however as it is the department's best professional judgment that chemical oxygen demand would be more protective effluent limits. Monitoring only is recommended. The permit writer may determine that effluent limits or benchmarks are necessary to protect the beneficial uses of the Mississippi River.

- **Total Suspended Solids (TSS).** Monitoring only is recommended. The permit writer may determine that effluent limits or benchmarks are necessary to protect the beneficial uses of the Mississippi River.

- **pH.** Monitoring only is recommended. The permit writer may determine that effluent limits or benchmarks are necessary to protect the beneficial uses of the Mississippi River. If limits are determined to be appropriate, the effluent range is from 6.5 to nine (6.5– 9.0) standard units [10 CSR 20-7.015 (8)(A)2.].

- **Oil & Grease**. Monitoring only is recommended. The permit writer may determine that effluent limits or benchmarks are necessary to protect the beneficial uses of the Mississippi River.

- **Bromide**. Monitoring only to determine if reasonable potential exists to exceed water quality standards.

- **Diethylene Glycol.** Per 10 CSR 20-7.031(1)(A) and (3)(I)2B, for substances not listed in Tables A and B, 0.3 of the median lethal concentration, or the no observed acute effect concentration for representative species, may be used to determine absence of acute toxicity. The median lethal concentration for daphnia magna (water flea) according to the material safety data sheet is 48,900 mg/l. Monitoring only is recommended.

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  AML= 4,709 (1.55) =7,299 mg/L [CV=0.6, 95th Percentile, n=4]

- **Ethylene Glycol.** Per 10 CSR 20-7.031(1)(A) and (3)(I)2B, for substances not listed in Tables A and B, 0.3 of the median lethal concentration, or the no observed acute effect concentration for representative species, may be used to determine absence of acute toxicity. The median lethal concentration for rainbow trout fish according to the material safety data sheet is 18,000 mg/l. Monitoring only is recommended.

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  WLA_a= (0.3* LC_{50}) = 0.3*18,000 =5,400 mg/l
  LTA_a=5,400(0.321)=1,733 mg/L [CV=0.6, 99th Percentile]
  MDL= 1,733 (3.11) =5,390 mg/L [CV=0.6, 99th Percentile]
  AML= 1,733(1.55) =2,686 mg/L [CV=0.6, 95th Percentile, n=4]

- **Chloride**. Monitoring only. Warm-water Protection of Aquatic Life CMC = 860 mg/L [10 CSR 20-7.031, Table A]. As discharge is dependent on precipitation, acute criteria apply. Background TRC = 21.69 mg/L. Drinking water standard= 250 mg/L. Drinking water criteria is more protective than aquatic life criteria. Monitoring only is required.

  Drinking Water Effluent Limits
  WLA= 250 mg/L
  AML= WLA= 250 mg/L
  MDL= AML*2.01= 250(2.01) = 503 mg/L [CV = 0.6, 99th Percentile]

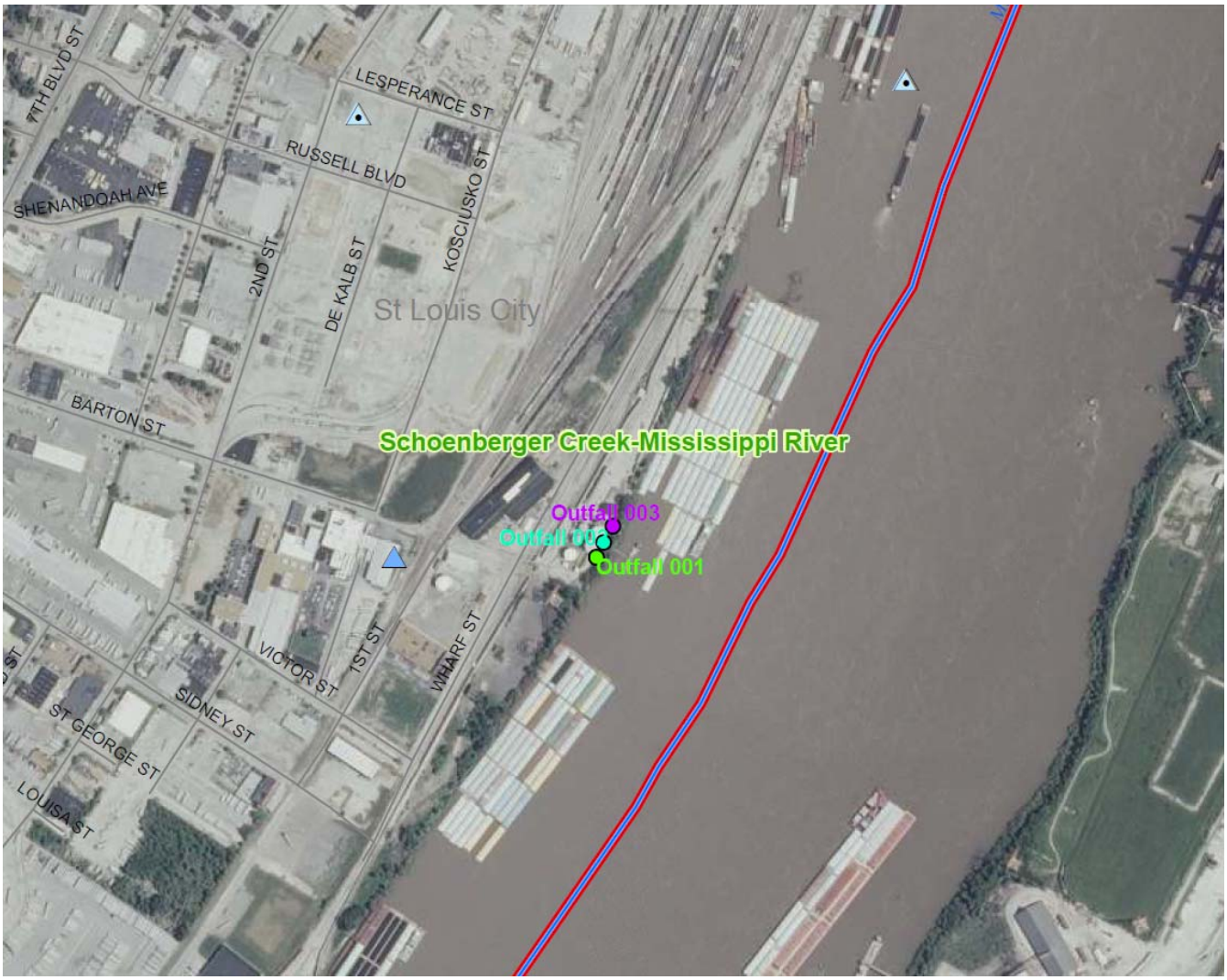
11. ANTIDEGRADATION REVIEW PRELIMINARY DETERMINATION

For the purpose of this antidegradation review, the proposed discharge from Kinder Morgan Liquid Terminal will result in insignificant degradation of the segment identified in the Mississippi River. Development of a site specific permit with best management practices used to control stormwater was determined to be the base case technology (lowest cost alternative that meets technology and water quality based effluent limitations. The cost effectiveness of the other technologies were evaluated, and best management practices was found to be cost effective and was determined to be the preferred alternative.

Per the requirements of the AIP, the effluent limits in this review were developed to be protective of beneficial uses and to attain the highest statutory and regulatory requirements. MDNR has determined that the submitted review is sufficient and meets the requirements of the AIP. As part of the site-specific permit, Kinder Morgan will be required to develop a stormwater pollution prevention plan (SWPPP). The permit writer may elect to set benchmarks or effluent limits to ensure the selected best management practices in the SWPPP are protecting water quality.

Reviewer: Leasue Meyers
Date: 01/10/2012
Unit Chief: John Rustige, P.E.

Appendix A: Map of Discharge Location



This document (queryID 1071) is confirmation of your Level 2 Species of Concern Response.

Your login and project information below:

User ID: 1071
First Name: Lease
Last Name: Meyers
Email Address: lease.meyers@dnr.mo.gov
Business: Department of Natural Resources
Project: Wastewater

Your query information below:

User ID	Response Level	Township	Range	Section	Direction	Latitude	Longitude	Point	Line	UTM North	UTM East	Rectangle	TimeStamp
1071						0	0			4276122	744228		1/12/2012 10:38:34 AM

Thank you for accessing the Missouri Natural Heritage Review Web Site developed by the Missouri Department of Conservation and the U.S. Fish and Wildlife Service with funding assistance by the U.S. Army Corps of Engineers. The purpose of this web site is to provide information to federal, state and local agencies, organizations, municipalities, corporations and consultants regarding sensitive fish, wildlife, plants and their habitats to assist in planning, designing and permitting stages of projects.

The results of a database query of the above referenced location indicate that **no** federally-listed threatened or endangered species (including those species proposed for listing) or critical habitat (designated or proposed) are known to occur on or near the project site. The U.S. Fish and Wildlife Service response is provided under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

The results of a database query of the above-referenced location indicate that state endangered species other species or natural communities of conservation concern (e.g., prairie, glade, fen) **are known** to occur on or near the project site and may be impacted by project construction activities. An MDC specialist needs to review your request to determine if your project is close enough to impact the resource in question. Please contact the Missouri Department of Conservation for further consultation. A written request containing the project description, county name, U.S.G.S. 1:24,000 topographic quadrangle name, township, range and section, and a location map (e.g., U.S.G.S topo. quad.) with the project area clearly identified, and a copy of this document noting the unique reference code should be sent to: Missouri Department of Conservation, Policy Coordination Section, Missouri Natural Heritage Review Web Site, P.O. Box 180, Jefferson City, MO 65102-0180.

The web site also provides additional information regarding management practices for planning purposes if your project is within the known range of certain sensitive species and habitats(e.g., karst areas, grasslands, stream reaches with critical spawning restrictions). Please note that this information does not serve as a substitute for direct consultation with Missouri Department of Conservation staff.

Thank you for helping us protect Missouri's sensitive natural resources. If you have any questions or require further assistance you may contact the U.S. Fish and Wildlife Service at (573)234-2132 or the Missouri Department at (573)522-4115, Ext. 3250.

Missouri Department of Conservation U.S. Fish and Wildlife Service
Missouri Natural Heritage Database Environmental Review Web Site

Appendix C: Antidegradation Review Summary Attachments

The attachments that follow contain summary information provided by the applicant, Kinder Morgan Liquid Terminal. MDNR staff determined that changes must be made to the information contained within these attachments. The following were modified and can be found within the MDNR WQAR:

1) Tier Determination and Effluent Limit Summary Sheet: Addition of oil and grease as a pollutant of concern; changed biochemical oxygen demand to chemical oxygen demand.

2) Attachment A: Addition of oil and grease as a pollutant of concern; changed biochemical oxygen demand to chemical oxygen demand.

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

WATER QUALITY REVIEW ASSISTANCE/ANTIDEGRADATION REVIEW REQUEST

PRE-CONSTRUCTION REVIEW FOR PROTECTION OF BENEFICIAL USES AND DEVELOPING EFFLUENT LIMITS

TYPE OF PROJECT
☐ Grant ☐ SRF Loan ☑ All Other Projects

REQUESTER	TELEPHONE NUMBER WITH AREA CODE
Mr. Dhaval Shah, Sr. EHS Specialist - Kinder Morgan Terminals	(773) 646-8131
PERMITTEE	TELEPHONE NUMBER WITH AREA CODE
Mr. Joshua Etzel, Director of Operations - Midwest Region	(708) 496-2871

REASON FOR REQUEST

☑ New Discharge (See Instruction #9) ☐ Upgrade (No expansion) (See AIP) ☐ Expansion

DESCRIPTION OF PROPOSED ACTIVITY:

Installation of three stormwater outfalls for the discharge of rainfall accumulation from within a tank farm secondary containment system

FACILITY INFORMATION

FACILITY NAME	MSOP NUMBER (IF APPLICABLE)
Kinder Morgan St. Louis Liquid Terminal	
COUNTY	SIC / NAICS CODE
St. Louis	4226

METHOD OF BACTERIA COMPLIANCE
☐ Chlorine Disinfection ☐ Ultraviolet Disinfection ☐ Ozone ☑ Not Applicable

WATER QUALITY ISSUES

No water quality issues known at this time. Proposed discharge is storm water.

Water quality issues include: effluent limit compliance issues, notice (s) of violation, water body beneficial uses not attained or supported, etc.

OUTFALL	LOCATION (LAT/LONG OR LEGAL DESCRIPTION)	MAPPED[1] (CHECK)	RECEIVING WATER BODY[2]
1	38.599837, -90.195637	☑	Mississippi River
2	38.600015, -90.195520	☑	Mississippi River
3	38.600204, -90.195372	☑	Mississippi River

[1] Attach topographic map (See www.dnr.mo.gov/internetmapviewer/) with outfall location(s) clearly marked. For additional outfalls, attach a separate form.

[2] See general instructions for discharges to streams.

OUTFALL	NEW DESIGN FLOW ** (MGD)	TREATMENT TYPE	EFFLUENT TYPES*
1	0.03	BMPs Per Table 4	Stormwater
2	0.03	BMPs Per Table 4	Stormwater
3	0.04	BMPs Per Table 4	Stormwater

* Describe predominating character of effluent. Example: domestic wastewater, municipal wastewater, industrial wastewater, storm water, mining leachate, etc.

** If expansion, indicate new design flow.

☐ Checked for rare or endangered species and provided determination with this request. See Instruction #8.

ANTIDEGRADATION REVIEW SUBMISSION:

See attached Antidegradation instructions. Applicant supplied a summary within:

☑ Tier Determination and Effluent Limit Summary
☑ Attachment A – Significant Degradation
☐ Attachment B – Minimal Degradation
☐ Attachment C – Temporary degradation
☐ Attachment D – Tier 1 Review
☐ No Degradation Evaluation – Conclusion of Antidegradation Review

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See general instructions. Additional information may be needed to complete your request. Your request may be returned if items are missing. Revised submittal will be considered a new submittal.

SIGNATURE	DATE

PRINT NAME
Joshua Etzel, Director of Operations - Midwest Region

E-MAIL ADDRESS
Joshua_Etzel@kindermorgan.com

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

ANTIDEGRADATION REVIEW SUMMARY
TIER DETERMINATION AND EFFLUENT LIMIT SUMMARY

1. FACILITY

NAME			TELEPHONE NUMBER WITH AREA CODE
Kinder Morgan - St. Louis Liquid			314-776-6629
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
2425 S. Wharf Street	St. Louis	MO	63104

2. RECEIVING WATER BODY SEGMENT #1

NAME

Mississippi River (Segment = from discharge source to confluence of Meramec River)

2.1 UPPER END OF SEGMENT (Location of discharge)
UTM _____ OR Lat 38.6 , Long -90.2

2.2 LOWER END OF SEGMENT
UTM _____ OR Lat 38.4 , Long -90.3

Per the Missouri Antidegradation Rule and Implementation Procedure, or AIP, the definition of a segment, "a segment is a section of water that is bound, at a minimum, by significant existing sources and confluences with other significant water bodies."

3. WATER BODY SEGMENT #2 (IF APPLICABLE)

NAME

3.1 UPPER END OF SEGMENT
UTM _____ OR Lat _____, Long _____

3.2 LOWER END OF SEGMENT
UTM _____ OR Lat _____, Long _____

4. WATER BODY SEGMENT #3 (IF APPLICABLE)

NAME

4.1 UPPER END OF SEGMENT
UTM _____ OR Lat _____, Long _____

4.2 LOWER END OF SEGMENT
UTM _____ OR Lat _____, Long _____

5. PROJECT INFORMATION

Is the receiving water body an Outstanding National Resource Water, an Outstanding State Resource Water, or drainage thereto?

☐ Yes ■ No

In Tables D and E of 10 CSR 20-7.031, Outstanding National Resource Waters and Outstanding State Resource Water are listed. Per the Antidegradation Implementation Procedure Section 1.B.3., "any degradation of water quality is prohibited in these waters unless the discharge only results in temporary degradation." Therefore, if degradation is significant or minimal, the Antidegradation Review will be denied.

Will the proposed discharge of all pollutants of concern, or POCs, result in no net increase in the ambient water quality concentration of the receiving water after mixing?

☐ Yes ☑ No

If yes, submit a summary table showing the levels of each pollutant of concern before and after the proposed discharge in the receiving water and then complete Attachment B for the first downstream classified water body segment.

Will the discharge result in temporary degradation?

☐ Yes ■ No

If yes, complete Attachment C.

Has the project been determined as non-degrading?

☐ Yes ☑ No

If yes, complete No Degradation Evaluation – Conclusion of Antidegradation Review form.
Submit with the appropriate Construction Permit Application as no antidegradation review is required.

If yes to one of the above questions, skip to Section 8 - Wet Weather.

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6. EXISTING WATER QUALITY DATA OR MODEL SUMMARY

Obtaining Existing Water Quality is possible by three methods according to the Antidegradation Implementation Procedure Section II.A.1.: (1) using previously collected data with an appropriate Quality Assurance Project Plan, or QAPP (2) collecting water quality data by approved the Missouri Department of Natural Resources methodology or (3) using an appropriate water quality model. QAPPs must be submitted to the department for approval well in advance (six months) of the proposed activity. Provide all the appropriate corresponding data and reports which were approved by the department Water Quality Monitoring and Assessment Section.

Date existing water quality data was provided by the Water Quality Monitoring and Assessment Section:

Approval date of the QAPP by the Water Quality Monitoring and Assessment Section:

Approval date of the project sampling plan by the Water Quality Monitoring and Assessment Section:

Approval date of the data collected for all appropriate pollutants of concern by the Water Quality Monitoring and Assessment Section:

Comments/Discussion:

This antidegradation review is being requested as part of a site specific NPDES stormwater permit application.

7. POLLUTANTS OF CONCERN AND TIER DETERMINATION(S)

Pollutants of Concern to be considered include those pollutants reasonably expected to be present in the discharge per the Antidegradation Implementation Procedure Section II.S. The tier protection levels are specified and defined in rule at 10 CSR 20-7.031 (2).

Water Body Segment One
Pollutants of Concern and Tier Determination(s)

Tier 1	Tier 2 with Minimal Degradation	Tier 2 with Significant Degradation
Tier 2 with Significant Degradation has been assumed per verbal MO DNR direction and guidance documentation.		
Potential POCs: BOD5, TSS, caustic soda, calcium chloride, calcium bromide,		
monoethylene glycol (MEG), and diethylene glycol (DEG).		
(The chemicals listed above represent intended product storage within the tank farm ASTs. MSDS sheets have been included.)		
Routine discharge of these POCs is not anticipated because of the sealed storage and transfer system.		

Note: Add an asterisk to items that you only assume are Tier 2 with significant degradation.

Water Body Segment Two
Pollutants of Concern and Tier Determination(s)

Tier 1	Tier 2 with Minimal Degradation	Tier 2 with Significant Degradation

- For pollutants of concern that are Tier 2 with significant degradation, complete Attachment A.
- For pollutants of concern that are Tier 2 with minimal degradation, complete Attachment B.
- For pollutants of concern that are Tier 1, complete Attachment D. Additionally, a Tier 2 review must be conducted for each pollutant of concern on the appropriate water body segment.

8. WET WEATHER ANTICIPATIONS

If an applicant anticipates excessive inflow or infiltration and pursues approval from the department to bypass secondary treatment, a feasibility analysis is required. The feasibility analysis must comply with the criteria of all applicable state and federal regulations including 40 CFR 122.41(m)(4). Attach the feasibility analysis to this report.

What is the Wet Weather Flow Peaking Factor in relation to design flow?
N/A

Wet Weather Design Summary:
N/A

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9. SUMMARY OF THE PROPOSED ANTIDEGRADATION REVIEW EFFLUENT LIMITS

What are the proposed pollutants of concern and their respective effluent limits that the selected treatment option will comply with:
To be determined following collection and analysis of representative discharge sample.

Pollutant of Concern	Units	Wasteload Allocation	Average Monthly Limit	Daily Maximum Limit
BOD5				
TSS				
Dissolved Oxygen				
Ammonia				
Bacteria (E. Coli)				

These proposed limits must not violate water quality standards, be protective of beneficial uses and achieve the highest statutory and regulatory requirements.

Attach the Antidegradation Review report and all supporting documentation.

CONSULTANT: I have prepared or reviewed this form and all attached reports and documentation. The conclusion proposed is consistent with the Antidegradation Implementation Procedure and current state and federal regulation.

SIGNATURE [signature] | DATE: 11/01/2011

NAME AND OFFICIAL TITLES: Greg Verret, PE - Principal

COMPANY NAME: ENVIRON International Corporation

ADDRESS	CITY	STATE	ZIP CODE
13723 Riverport Drive, Suite 201	Maryland Heights	MO	63043

TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
314-513-1958	gverret@environcorp.com

OWNER: I have read and reviewed the prepared documents and agree with this submittal.

SIGNATURE [signature] for JOSH ETZEL | DATE: 11/2/11

NAME AND OFFICIAL TITLES: Mr. Joshua Etzel, Director of Operations - Midwest Region

ADDRESS	CITY	STATE	ZIP CODE
12200 S. Stony Island	Chicago	IL	60633

TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
708-496-2871	Joshua_Etzel@kindermorgan.com

CONTINUING AUTHORITY: Continuing Authority is the permanent organization that will be responsible for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is found in 10 CSR 20-6.010(3) available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf.

I have read and reviewed the prepared documents and agree with this submittal.

SIGNATURE | DATE

NAME AND OFFICIAL TITLES

ADDRESS	CITY	STATE	ZIP CODE

TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS

MO 780-2025 (05-09)