

**KENTUCKY POLLUTANT
DISCHARGE ELIMINATION
SYSTEM****FACT SHEET****HYDROSTATIC TEST WATER GENERAL PERMIT****KPDES No.:** KYG670000**AI No.:** 35050**Date:** November 19, 2024**Public Notice Information**

Public Notice Start Date: November 20, 2024

Comment Due Date: December 20, 2024

General information concerning the public notice process may be obtained on the Division of Water's Public Notice Webpage at the following address:

<https://eec.ky.gov/Environmental-Protection/Water/Pages/Water-Public-Notices-and-Hearings.aspx>.

Public Notice Comments

Comments must be received by the Division of Water no later than 4:30 PM on the closing date of the comment period. Comments may be submitted by e-mail at: DOWPublicNotice@ky.gov or written comments may be submitted to the Division of Water at 300 Sower Blvd, Frankfort, Kentucky 40601.

Reference Documents

A copy of this proposed fact sheet, proposed permit, the application, other supporting material and the current status of the application may be obtained from the Department for Environmental Protection's Pending Approvals Search Webpage:

<https://dep.gateway.ky.gov/eSearch/Approvals/Pending>

Open Records

Copies of publicly-available documents supporting this fact sheet and proposed permit may also be obtained from the Department for Environmental Protection Central Office. Information regarding these materials may be obtained from the Open Records Coordinator at (502) 782-6849 or by e-mail at ECC.KORA@ky.gov.

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SECTION 1
FACILITY COVERED

1. FACILITY SYNOPSIS

The creation of this General Permit is for discharges of hydrostatic test water from new facilities, unused facilities, and from used facilities which have been used for the transportation or storage of natural gas, crude oil, or liquid or gaseous petroleum hydrocarbons to ensure the discharge of hydrostatic test water to waters of the Commonwealth is in compliance with all applicable state and federal water pollution control laws. These facilities include, but are not limited to, pipelines, storage tanks, and other vessels.

Hydrostatic test water means water placed in pipelines, tanks, or other vessels (new/unused or used) and raised to greater than atmospheric pressure in order to check for leaks and/or the structural integrity of these facilities. Hydrostatic test water also includes vessels, tanks, and pipelines filled with water to test for leaks without raising pressure to above atmospheric pressure. Discharges of hydrostatic test water generally take place from new facilities, unused facilities, and from used facilities that have been used for the transportation or storage of natural gas, crude oil, or liquid or gaseous petroleum hydrocarbons. These facilities include, but are not limited to, pipelines, storage tanks, and other vessels.

Hydrostatic test water is typically discharged for short durations. The test water must be non-corrosive to protect the integrity of the pipeline, tank, or vessel; non-scaling to prevent solids accumulation in the pipeline, tank, or vessel; and biostatic to prevent biofilm build up and microbially induced corrosion of the pipeline, tank, or vessel. Flushing operations are typically disinfected with a chlorine solution when utilizing potable water for the hydrostatic test water.

1.1. Eligibility

Facilities eligible for coverage under this general permit are those facilities that discharge hydrostatic test water from new/unused pipelines, storage tanks, and other vessels or used natural gas or petroleum product pipelines, storage tanks, and other vessels to waters of the Commonwealth. These facilities include, but are not limited to, pipelines, storage tanks, and other vessels.

1.2. Summary of Exclusions

Facilities meeting any of the following criteria are not eligible for coverage under this general permit:

- 1) Facilities discharging directly into surface water designated as a Cold Water Aquatic Habitat (CAH) or as Outstanding State Resource Water (OSRW) as listed in 401 KAR 10:026, Section 5.
- 2) Facilities discharging directly into surface water categorized as an Outstanding National Resource Water (ONRW) or Exceptional Water (EW) as listed in 401 KAR 10:030, Section 1.
- 3) Those facilities that discharge to a receiving water body that has been categorized as an "Impaired Water" for a pollutant or pollutants of concern that may be associated with such activities unless measures or controls are established in this permit;
- 4) Those facilities that discharge pollutants of concern to waters for which there is an EPA-approved total maximum daily load (TMDL);
- 5) Those facilities that have obtained or are required to obtain an individual KPDES permit;
- 6) Storm water discharges associated with construction or industrial activity;
- 7) Discharges of groundwater associated with underground storage tank remediation;
- 8) Those facilities discharging into water bodies with a domestic water intake is located within five miles downstream;
- 9) Those facilities whose wastewater discharges are mixed with any other discharges that are not associated with hydrostatic test water. Stormwater that is not related to but is mixed with the discharge from the hydrostatic test water, during wet weather conditions, is not covered by this general permit.
- 10) Those discharges that DOW has determined are more appropriately addressed by an individual KPDES permit or alternate KPDES general permit.

Further information on impaired waters may be found by reviewing the Integrated Report available at the following link: <https://eec.ky.gov/Environmental-Protection/Water/Monitor/Pages/IntegratedReportDownload.aspx>

Further information on TMDLs may be found at the following link: <https://eec.ky.gov/Environmental-Protection/Water/Protection/TMDL/Pages/default.aspx>

1.3. Location

Within the 120 counties of the Commonwealth of Kentucky.

1.4. Treatment Provided

The treatment provided is specific to the facility and is dependent upon the volume of hydrostatic test water and sources of potential contamination.

1.5. Permitting Action

This is a new general KPDES permit to address discharges from hydrostatic test water from new pipelines, tanks, or other vessels and to address discharges from hydrostatic test water from used natural gas or petroleum product pipelines, tanks, or other vessels.

SECTION 2
RECEIVING WATER INFORMATION

2. RECEIVING / INTAKE WATERS

2.1. Receiving Waters

All surface waters of the Commonwealth have been assigned stream use designations consisting of one or more of the following designations: Warmwater Aquatic Habitat (WAH), Primary Contact Recreation (PCR), Secondary Contact Recreation (SCR), Domestic Water Supply (DWS), Coldwater Aquatic Habitat (CAH), or Outstanding State Resource Water (OSRW)[401 KAR 10:026].

This permit authorizes discharger to water bodies of the Commonwealth that comprise the Mississippi and Ohio River basins and sub-basins within the political and geographic boundaries of Kentucky, that have been designated by DOW singularly or in combination thereof as listed in 401 KAR 10:026, Section 5:

- (1) Warm Water Aquatic Habitat,
- (2) Primary Contact Recreation,
- (3) Secondary Contact Recreation, and
- (4) Domestic Water Supply.

2.2. Stream Segment Antidegradation Categorization

All surface waters of the Commonwealth are assigned one of the following antidegradation categories: Outstanding National Resource Water (ONRW), Exceptional Water (EW), Impaired Water (IW), or High Quality Water (HQ) [401 KAR 10:030].

Surface waters categorized as an IW are listed in Kentucky's most recently approved Integrated Report to Congress on the Condition of Water Resources in Kentucky - Volume II. 303(d) List of Surface Waters.

Included are those water bodies which have been categorized as High Quality Waters, and Impaired Waters listed in the most recently approved Integrated Water Quality 305(b) Report to Congress for which an approved TMDL has not been developed for pollutants of concern.

2.3. Stream Low Flow Condition

The 7-day, 10-year low flow conditions of the receiving streams can range from zero (0) cubic feet per second (cfs) to 111,000 cfs for the Mississippi River.

SECTION 3
EFFLUENT LIMITATIONS AND MONITORING
REQUIREMENTS

3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements in this Section are divided into the following categories: Table 1 for discharge of hydrostatic test waters from new/unused pipelines, storage tanks, or other vessels; Table 2 for discharges of hydrostatic test waters from used natural gas pipelines, storage tanks, or other vessels; and Table 3 for discharges of hydrostatic test waters from used petroleum product pipelines, storage tanks, or other vessels. The authorized KPDES Outfalls are identified on each issued KYG670000 Coverage Letter.

3.1. Background

Based on historical records from that past 6 years, the DOW expects approximately 16 applicants per year with approximal 93% of them being from new/unused systems. Hydrostatic test water is typically discharged for short durations and 97% of the facilities reviewed use municipal water as their source water for hydrostatic testing. Based on DOW’s experience and review of other states general NPES permits, any pollutants of concern that would be associated with hydrostatic test water from new or used natural gas pipelines would be associated with the source water or any additives that might be used. Since Kentucky has limited data on hydrostatic test water from used petroleum product pipelines, storage tanks, or other vessels, determinations were based on literature review and other state issued general permits. It was determined the main pollutant of concern was BTEX. Controlling BTEX from these systems will also control the release of other pollutants that might be in the system. In order to accurately characterize the discharge, DOW will require sampling of the source water (if municipal water is not used) and a copy of the Material Safety Data Sheets for all additives that might be used as part of the NOI.

3.2. Reported Values

The following table summarizes the reported values for a sampling of Hydrostatic Test Water from sites that proposed a discharge to waters of the Commonwealth in Kentucky:

TABLE 1.						
Reported Parameters	EFFLUENT					
	Loadings (lb/day)		Concentrations			
	Monthly Average	Daily Maximum	Units	Minimum	Monthly Average	Daily Maximum
pH	N/A	N/A	SU	6.3	8.00	11.1
Total Suspended Solids	N/A	N/A	mg/L	BDL	6.3	43
Oil & Grease	N/A	N/A	mg/L	BDL	BDL	BDL
Total Residual Chlorine	N/A	N/A	mg/L	BDL	0.016	0.04
Benzene	N/A	N/A	mg/L	BDL	BDL	BDL
Ethylbenzene	N/A	N/A	mg/L	BDL	BDL	BDL
Toluene	N/A	N/A	mg/L	BDL	BDL	BDL
Xylene	N/A	N/A	mg/L	BDL	BDL	BDL
Naphthalene	N/A	N/A	mg/L	BDL	0.000017	0.000045
Dissolved Oxygen	N/A	N/A	mg/L	5.11	9.68	16.2

TABLE 1.					
Reported Parameters	EFFLUENT				
	Loadings (lb/day)		Concentrations		
	Monthly Average	Daily Maximum	Units	Minimum	Monthly Average
N/A means Not Applicable.					
BDL means Below Detection Limit.					

The above values are based upon data provided to the Surface Water Permits Branch from 08/01/2017 through 05/1/2023. Most project discharges lasted less than one day.

3.3. Discharge of hydrostatic test waters from new/unused pipelines, storage tanks, or other vessels.

The following effluent limitations and monitoring requirements apply to the discharges from the KPDES Outfalls identified on the KYG670000 Coverage Letter as receiving hydrostatic test waters from new/unused pipelines, storage tanks, or other vessels.

TABLE 2.							MONITORING REQUIREMENTS	
Effluent Characteristics	Loadings (lb/day)		Concentrations				Frequency	Sample Type
	Monthly Average	Daily Maximum	Units	Minimum	Monthly Average	Daily Maximum		
Flow	Report	Report	MGD	N/A	N/A	N/A	1/Discharge	Instantaneous or estimated
Total Suspended Solids	N/A	N/A	mg/L	N/A	Report	Report	1/Discharge	Grab
Oil & Grease	N/A	N/A	mg/L	N/A	Report	15	1/Discharge	Grab
pH	N/A	N/A	SU	6.0	N/A	9.0	1/Discharge	Grab
Total Residual Chlorine ¹	N/A	N/A	mg/L	N/A	0.011	0.019	1/Discharge	Grab

¹Use NODI Code 9 for reporting if treated public water or other chlorinated water source is not used.

NOTE: The discharge flow shall be controlled such that erosion and denuding or the riparian zone does not occur.

3.4. Discharge of hydrostatic test waters from used natural gas pipelines, storage tanks, or other vessels.

The following effluent limitations and monitoring requirements apply to the discharges from the KPDES Outfalls identified on the KYG670000 Coverage Letter as receiving hydrostatic test waters from used natural gas pipelines, natural gas storage tanks, or natural gas vessels.

TABLE 3.

EFFLUENT LIMITATIONS							MONITORING REQUIREMENTS	
Effluent Characteristics	Loadings (lb/day)		Concentrations				Frequency	Sample Type
	Monthly Average	Daily Maximum	Units	Minimum	Monthly Average	Daily Maximum		
Flow	Report	Report	MGD	N/A	N/A	N/A	1/Discharge	Instantaneous or estimated
Total Suspended Solids	N/A	N/A	mg/L	N/A	Report	Report	1/Discharge	Grab
Oil & Grease	N/A	N/A	mg/L	N/A	Report	15	1/Discharge	Grab
pH	N/A	N/A	SU	6.0	N/A	9.0	1/Discharge	Grab
Total Residual Chlorine ¹	N/A	N/A	mg/L	N/A	0.011	0.019	1/Discharge	Grab

¹Use NODI Code 9 for reporting if treated public water or other chlorinated water source is not used.

NOTE: All piggings, or precleaning wastewater, shall be collected and disposed of in an acceptable manner. At no time shall the piggings be allowed to contact the fill water or be directly discharged to any Waters of the Commonwealth.

NOTE: The discharge flow shall be controlled such that erosion and denuding of the riparian zone does not occur.

3.5. Discharge of hydrostatic test waters from used petroleum product pipelines, storage tanks, or other vessels

The following effluent limitations and monitoring requirements apply to those discharges from the KPDES Outfalls identified on the KYG670000 Coverage Letter as receiving hydrostatic test waters from used petroleum product pipelines, petroleum product storage tanks, or petroleum product storage tanks.

TABLE 4.

EFFLUENT LIMITATIONS							MONITORING REQUIREMENTS	
Effluent Characteristics	Loadings (lb/day)		Concentrations				Frequency	Sample Type
	Monthly Average	Daily Maximum	Units	Minimum	Monthly Average	Daily Maximum		
Flow	Report	Report	MGD	N/A	N/A	N/A	1/Discharge	Instantaneous or estimated
Total Suspended Solids	N/A	N/A	mg/L	N/A	Report	Report	1/Discharge	Grab
Oil & Grease	N/A	N/A	mg/L	N/A	Report	15	1/Discharge	Grab
pH	N/A	N/A	SU	6.0	N/A	9.0	1/Discharge	Grab
Benzene	N/A	N/A	mg/L	N/A	Report	0.050	1/Discharge	Grab
Total BTEX	N/A	N/A	mg/L	N/A	Report	0.100	1/Discharge	Grab
Naphthalene	N/A	N/A	mg/L	N/A	Report	Report	1/Discharge	Grab
Total Residual Chlorine ¹	N/A	N/A	mg/L	N/A	0.011	0.019	1/Discharge	Grab

¹Use NODI Code 9 for reporting if treated public water or other chlorinated water source is not used.

NOTE: All piggings, or precleaning wastewater, shall be collected and disposed of in an acceptable manner. At no time shall the piggings be allowed to contact the fill water or be directly discharged to any Waters of the Commonwealth.

NOTE: The discharge flow shall be controlled such that erosion and denuding or the riparian zone does not occur

3.6. Pertinent Factors

The effluent limitations for this category of outfalls were developed in accordance with DOW's General Procedures for Limitations Development located on DOW's webpage at:

<https://eec.ky.gov/Environmental-Protection/Water/PermitCert/KPDES/Pages/default.aspx>

3.6.1. Technology-Based Effluent Limitations

3.6.1.1. General Requirement for Technology-Based Limitations

Technology-based effluent limitations and standards, based on federally promulgated standards, a case-by-case basis, or a combination of the two, shall be included in all KPDES permits, where applicable [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(a)].

3.6.1.2. Federal Effluent Limitations Guidelines

The DOW has reviewed this operation, its processes, its wastestreams and its Standard Industrial Classification. The DOW found no Effluent Guideline that applies to this type of discharge.

3.6.1.3. Best Professional Judgement

Oil & Grease

The limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Conventional Pollutant Control Technology" (BCT) requirements for these pollutants. Flotation or gravity separation of lighter petroleum-based products from water is a common and cost effective method for the removal of oil & grease. It has been the experience of the Division that this treatment method can achieve oil & grease concentrations of 15 mg/l as a daily maximum.

Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)

The four Alkyl Benzene volatile organic compounds (benzene, toluene, ethylbenzene, and the ortho, para, and meta xylenes) are common constituents of petroleum fuels. The term BTEX, representing the sum of the concentrations of these four compounds, is commonly used by the petroleum industry in measuring the quality of fuels. Virtually all EPA and state issued permits for petroleum discharges reviewed in the research for this permit limit BTEX as a secondary parameter. All the BTEX compounds have closely related chemical characteristics to Benzene. However, the composition of gasoline is highly variable and for some gasoline products, any one of the four BTEX compounds could be the dominant constituent. Therefore, regulating the total of the four, rather than individually, provides a useful secondary indicator for control of water discharges containing volatile petroleum contaminants. This parameter has been adopted for use by EPA and state agencies to serve as a measure of effluent quality and an "indicator" parameter representing the wide variety of chemical compounds that may be found in petroleum products.

Since air stripping and carbon adsorption are the most widely used treatment technologies for control of volatile, semi-volatile, or non-volatile organic compounds in water, the evaluation of the chemical characteristics will allow an evaluation of the potential ease of removal of contaminants by these treatment methods. In general, the more soluble a substance is in water the more difficult it is to remove by air stripping and carbon treatment. Rather than attempt to establish effluent limits for every compound found in a petroleum release, selection of those compounds which would be most difficult to remove to low levels will provide an adequate indicator of removal of the other compounds in the water being treated with the standard technologies. This limit is based on the typical removal efficiency of 99.5% or better for BTEX using a commercially available air stripper unit. Based on EPA's model permit, other state general permits, and the observed performance of control equipment at historical or existing cleanup sites in Kentucky, DOW is setting a technology-based limit for BTEX at 100 ug/L.

Benzene

Of the compounds in gasoline, Benzene has one of the highest solubilities in water and one of the lowest Henry’s law constants. Thus when using air stripping, Benzene will be more difficult to remove. Thus, it will be the most likely to “break through” when using carbon treatment and appear in the effluent when the carbon’s adsorptive capacity is becoming exhausted and needs replacement. Benzene has commonly been selected as a primary indicator of effluent quality for these reasons. Since Benzene is an indicator compound, Benzene breakthrough would also indicate that other hydrocarbons are no longer being sorbed as well.

After installation or certain types of repair, tanks and pipelines must be tested with water, i.e., hydrostatic testing. Typically, the tanks or pipes are sealed, filled with water, and pressurized to check on the structural integrity of the vessel. Following the test, the water is removed from the vessel. These discharges are often large volume, short term discharges of one or two days.

Kentucky DOW considered a number of resources in setting the benzene limit for hydrostatic testing. Including reviewing the natural gas pipeline industry study of hydrostatic test water discharges from existing natural gas pipelines ("Environmental Aspects of Hydrostatic Test Water Discharges: Operations, Characterization, Treatment and Disposal," Tallon, Myerski and Fillo, prepared for the Gas Research Institute, April, 1996). The Gas Research Institute (GRI) study gathered data on benzene in hydrostatic test water both before and after treatment. The results of the information in the GRI study indicate pre-scouring (or “pigging” as its known in the industry) to be the most effective way of lowering benzene levels in the test water discharges. The study showed that 50 ug/l benzene was achievable in the grab sample with the highest benzene level.

Based on the GRI study and the existing limits developed in other state and EPA general permits, Kentucky DOW set a technology based maximum level for Benzene from hydrostatic testing discharges at 50 ug/L.

3.6.2. Water Quality-Based Effluent Limitations and/or Monitoring

The following table lists those water quality-based pollutants and/or pollutant characteristics of concern that DOW has determined exhibit reasonable potential to exceed a water quality criterion and the basis of DOW’s determination. These determinations are consistent with the DOW’s reasonable potential analysis (RPA) procedures outlined in *Permitting Procedures For Determining “Reasonable Potential”* Kentucky Division of Water May 1, 2000. This table may also include pollutants for which DOW has found the existence of reasonable potential to be indeterminate or for which DOW needs additional study.

TABLE 5.	
Pollutant or Pollutant Characteristic	Basis
Total Residual Chlorine	Since test water can be sourced to include a public water supply (which contain significant residual chlorine) or surface water (with chlorine added for disinfection), dechlorination either by treatment or dissipation may be needed to meet water quality standards in the discharge.
Total Suspended Solids	Due to the nature of this discharge DOW dose not see a need to limit this pollutant at this time, but will this general permit cycle to collect additional data for futural renewals.
BTEX	Due to the nature of petroleum product pipelines and storage tanks it is the Divisions best professional judgement to limit this pollutant in the discharge from these systems. The applied technology-based limitation is protective of the Kentucky Water Quality Standards.
Naphthalene	Due to the nature of this discharge DOW it is the Divisions best professional judgement to monitor this pollutant when hydrostatic test waters from petroleum product pipelines and storage tanks is discharged in order to collect data for future renewals.

3.6.3. Treatment Additives

Written permission must be obtained from the director of the Kentucky Division of Water prior to the use of any toxic treatment additives discharged to waters of the state. If additives are being used that have not previously been identified in the NOI application, an approval must be obtained for continued use. Discharges of these additives must meet Kentucky Water Quality Standards and shall not be harmful to aquatic life. Request for approvals along with Safety Data Sheets shall be submitted to Surface Water Permits Branch and should be filed at least forty-five days prior to use. All piggings, or precleaning wastewater, shall be collected and disposed of in an acceptable manner. At no time shall the piggings be allowed to contact the fill water or be directly discharged to any Waters of the Commonwealth.

3.7. Limitation Calculations

3.7.1. Calculations for Water Quality-Based Effluent Limitations

These calculations were performed using a Microsoft EXCEL based workbook developed by DOW. The workbook is designed to compare effluent data to the applicable water quality standards while also incorporating the characteristics of the receiving water and any regulatory ZID and/or MZ. The following table summarizes the results of these calculations for this outfall:

Effluent Characteristic	Units	Reported Av	Reported M	Average Limitation	Maximum Limitation	Average Discharge %	Maximum Discharge %	MZF	Data Source
Benzene	µg/L	0	0	2.2	N/A	0.00	N/A	0	APP
Ethylbenzene	µg/L	0	0	530	N/A	0.00	N/A	0	APP
Toluene	µg/L	0	0	1300	N/A	0.00	N/A	0	APP
Total Residual Chlorine	µg/L	16	40	11	19	145.45	210.53	0	APP

In order to ensure that DOW is protective of all waters of the Commonwealth, the water quality-based limitations are based on zero stream flow and a presumed hardness of 100 mg/l.

3.7.2. Comparison of Technology Based Effluent Limitations to Water Quality Based Effluent Limitations

The final step in determining a permit’s final limits is to compare the limitations generated from any effluent guidelines and other technology-based limitations to those generated from the water quality standards. The final limitations are the more stringent of the WQBELs or the TBELs.

Pollutant	WQBEL (µg/l)		TBEL (µg/l)	
	Average	Maximum	Average	Maximum
Benzene	2.2	-	-	50
Ethylbenzene	530	-	-	100
Toluene	1300	-	-	100
Xylene	-	-	-	100
Oil & Grease	Narrative	Narrative	-	15

Based on a review of the table above the TBEL were demonstrated to be protective of water quality criteria for all pollutants except Benzene. Therefore, no additional consideration is requirements are needed.

Benzene

In establishing a technology-based effluent limit for Benzene, Kentucky DOW evaluated the current aquatic and health based standards established for this compound. The goal of this permit is to provide conservative protection for the receiving waters since the location of “new” discharges and the receiving water quality is not known for purposes of developing this permit. For many organic compounds, the health-based standards are most conservative. Health-based standards are typically developed to achieve certain risk-based levels based on long-term (lifetime) exposure to the toxic material. For example, a

certain concentration in water ingested over a lifetime may cause a one in a million additional cases of cancer.

The most recent Kentucky water quality criteria value for human health for Benzene is 2.2 ug/L (consumption of water + organisms) and 51 ug/L (consumption of organism only). Thus, in certain low flow or zero dilution receiving waters where the effluent essentially constitutes the flow, an effluent limitation of 50.0 ug/L could exceed the human health based water quality standard for consumption of water and organisms.

However, according to 401 KAR 10:031 domestic water supply protection shall be determined at points of withdrawal and low flow or zero flow waters are not typically used as sources of drinking water although they may be in recharge areas or tributary to waters used as water supplies. Discharges within 5 miles of an intake are already excluded from being covered under this general permit. Additionally, the human health criteria values are based on a "lifetime" exposure scenario or continuous consumption of certain amounts of water at the concentration levels of concern. The majority of discharges anticipated to be covered by this general permit are short duration (e.g., from a few days to a few weeks). Finally, if the NOI for discharge under this permit indicates some unusual circumstances where the effluent limitation for Benzene or the BTEX compounds may be problematic or human health criteria based limits are needed, Kentucky DOW will issue an individual permit.

Oil & Grease

To ensure that both technology and water quality standards are achieved, both the numeric TBEL and the narrative water quality criteria [401 KAR 10:031 Section 2(b)] are applied. The Division of Water has concluded that the technology-based effluent limitation is protective of the narrative criteria.

3.8. Justification of Requirements

Chapters 5 and 10 of Title 401 of the Kentucky Administrative Regulations (KARs), cited in the following, have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

At a minimum, all permits shall contain technology-based effluent limitations (TBELs) [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(a)]. When necessary to achieve water quality standards, all permits shall contain water quality-based effluent limitations (WQBELs) [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(d)]. Any WQBELs included in this permit are based upon the Kentucky Water Quality Standards (KYWQS) [401 KAR 10:031].

3.8.1. Flow

The monitoring requirements for this parameter are consistent with the KPDES permit program requirements for establishing effluent limitations, standards, and permit conditions [401 KAR 5:065, Section 2(4) - 40 CFR 122.44(i)(1)(ii)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

3.8.2. pH

The effluent limitations for this parameter are consistent with [401 KAR 10:031, Section 4(1)(b) and Section 7] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

3.8.3. Total Suspended Solids

The monitoring requirements for this parameter are consistent with the KPDES permit program requirements for establishing effluent limitations, standards, and permit conditions [401 KAR 5:065, Section 2(4) - 40 CFR 122.44(i)(1)(i)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

3.8.4. Oil & Grease

The limitations for this parameter are consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by reference in 401 KAR 5:080, Section 2(3). The limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Conventional Pollutant Control Technology" (BCT) requirements for these pollutants.

3.8.5. Total Residual Chlorine

The limitations for this parameter are consistent Kentucky's Water Quality Standards [401 KAR 10:031, Section 4(1)(k)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

3.8.6. Benzene, Ethylbenzene, and Toluene

The limitations for these parameters are consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by reference in 401 KAR 5:080, Section 2(3). The limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination and are consistent with KYWQS [401 KAR 10:031, Section 6] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

3.8.7. Xylene

The limitations for this parameter are consistent with the requirements of 40 CFR 125.3(c)(2) as incorporated by reference in 401 KAR 5:080, Section 2(3). The limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination.

3.8.8. Naphthalene

The monitoring requirements for this parameter are consistent with the KPDES permit program requirements for establishing effluent limitations, standards, and permit conditions [401 KAR 5:065, Section 2(4) - 40 CFR 122.44(i)(1)(i)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 - 40 CFR 122.48].

SECTION 4
OTHER CONDITIONS

4. OTHER CONDITIONS

4.1. Schedule of Compliance

The permittee is required to comply with all effluent limitations by the effective date of the permit unless a compliance schedule is included with the permit.

4.2. Antidegradation

The summary of *Facilities Covered* and *Summary of Exclusions* in Section 1 explains in detail the eligibility requirements for facilities seeking coverage under this general permit. By setting strict eligibility requirements, DOW limits the industrial materials and operations that can receive coverage and therefore the potential impact to surface waters of the Commonwealth. Along with these restrictions, numeric requirements, the creation and implementation of control measures and BMPs, DOW has determined that for new or expanded discharges to High Quality Waters, there will be no significant degradation in the receiving waters due to the permitted activity.

It is the DOW's conclusion that the antidegradation requirements have been satisfied by this permitting action. This is consistent with the requirements of [401 KAR 10:029 Section 1, 401 KAR 10:030 Section 1, and 401 KAR 10:031 Section 4].

4.3. Standard Conditions

The conditions listed in the Standard Conditions Section of the permit are consistent with the conditions applicable to all permits [401 KAR 5:065, Section 2(1) – 40 CFR 122.41].

4.4. Sufficiently Sensitive Analytical Methods

Analytical methods utilized to demonstrate compliance with the effluent limitations established in this permit shall be sufficiently sensitive to detect pollutant levels at or below the required effluent limit [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(i)(1)(iv)].

4.5. Certified Laboratory

The condition that all environmental analysis to be performed by a certified laboratory is consistent with the certified wastewater laboratory requirements [401 KAR 5:320, Section 1].

4.6. Best Management Practices Plan (BMPP)

Permits are to include BMPs to control or abate the discharge of pollutants when: 1) authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) authorized under Section 402(p) of the CWA for the control of stormwater discharges; 3) numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(k)]

4.7. Electronic Notice of Intent

Each individual facility must submit a Notice of Intent (NOI) and be granted coverage prior to the commencement of discharge.

NOI requirements are intended to establish a mechanism that can be used to establish a clear accounting of the number of permittees covered by the general permit, their identities, locations, mailing addresses, and nature of discharge

The NOI application form shall be completed and contain the following:

- a) name of the owner or operator of the vessel or activity, mailing address, the name and address of a contact person;
- b) brief description of the vessel to be tested;

- c) expected volume of discharge;
- d) new/unused or used tanks/pipelines/vessels and explanation of the used system contents;
- e) a description of the type of source waters to be used (surface water, ground water, municipal drinking water, treated effluent, etc.);
- f) if a source water other than potable water is used, the NOI shall also include testing of all parameters believed present in the source water;
- g) description of Best Management Practices (BMPs) to be employed;
- h) location of discharge(s);
- i) name of the waters receiving the discharge; and
- j) a list of any additives proposed to be discharged along with Safety Data Sheets (SDS) which need to be reviewed and approved. (Contact the Division of Surface Water, Permitting Section.

Permit coverage does not become effective until the permittee receives written notification from the Director that coverage is granted.

4.8. Outfall Signage

The KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility. As a member of ORSANCO, DOW is including language in KPDES permits authorizing discharges to the Ohio River to abide by the permanent marker requirements of Part V, Section A 3 of ORSANCO's Pollution Control Standards.

SECTION 5
OTHER INFORMATION

5. OTHER INFORMATION

5.1. Permit Duration

The permit shall have duration of five (5) years from the effective date unless modified or reissued.

5.1.1. Submit Notice of Termination

When one or more of the following conditions have been met, operators shall submit a completed Notice of Termination (NOT) to DOW:

- a) Once all hydrostatic test water discharges are eliminated which the permittee is responsible;
- b) Another permittee has assumed control over all hydrostatic test water discharges;
- c) Coverage under an individual KPDES permit has been obtained.

5.1.2. Automatic Termination

For new projects that do not submit a Notice of Termination (NOT) as described in Section 5.1.1, termination of coverage will occur automatically one (1) year after authorization to discharge is granted unless the operator submits a new NOI application.

5.2. Permit and Public Notice Information

The draft permit, fact sheet and public notice are available on the DOW Public Notice web page and the Department of Environmental Protection's Pending Approvals Search web page at:

<https://eec.ky.gov/Environmental-Protection/Water/Pages/Water-Public-Notices-and-Hearings.aspx>

Comments must be received by the Division of Water no later than 4:30 PM on the closing date of the comment period. Comments may be submitted by e-mail at: DOWPublicNotice@ky.gov or written comments may be submitted to the Division of Water at 300 Sower Blvd, Frankfort, Kentucky 40601.

5.3. References and Cited Documents

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the Division of Water's Open Records Coordinator at (502) 782-6849 or by e-mail at EEC.KORA@ky.gov.

5.4. Contact

For further information, contact the Surface Water Permits Branch by phone at (502) 564-3410 or by email at SWPBSupport@ky.gov.