

FACT SHEET

FOR THE OPDES GENERAL PERMIT FOR DISCHARGES FROM HYDROSTATIC TESTING OF EQUIPMENT, PIPING AND VESSELS SUBJECT TO DEQ JURISDICTION TO DISCHARGE TO WATERS OF THE STATE UNDER THE OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM (OPDES)

DEQ Permit No.: OKG270000

Applicant: Operators of facilities discharging wastewaters resulting from the hydrostatic testing of equipment, piping and vessels subject to DEQ jurisdiction

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Permit Action: Renewal of a General Permit for the discharge of wastewater from hydrostatic testing projects subject to DEQ jurisdiction.

I. SCOPE OF PERMIT

This General Permit Number OKG270000 (Permit) authorizes discharges resulting from the hydrostatic testing of the following types of equipment, piping and vessels associated with processing at or located in natural gas liquid extraction plants, natural gas processing plants, refineries, petrochemical manufacturing plants, gas compressor stations, or other facilities subject to DEQ jurisdiction: (1) new and existing natural gas equipment, piping and vessels; (2) new and existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels; and (3) new equipment, piping and vessels of other facilities subject to DEQ jurisdiction.

This Permit does not authorize discharges resulting from the hydrostatic testing of existing equipment, piping and vessels associated with processing and storage of any chemicals and raw materials other than natural gas, oil, petroleum, and petrochemical products. Such discharges will require individual discharge permits. This Permit also does not authorize discharges resulting from the hydrostatic testing of natural gas, oil, petroleum or petroleum product pipelines located outside natural gas liquid extraction plants, natural gas processing plants, gas compressor stations, refineries, petrochemical manufacturing plants or other facilities subject to DEQ jurisdiction.

Hydrostatic test projects that are currently permitted by the Oklahoma Department of Environmental Quality (DEQ) through individual wastewater discharge permits may apply for coverage under this Permit no later than 180 days prior to the expiration of their current individual permits, or they may elect to continue coverage under their individual permits. Existing hydrostatic test projects that are not currently permitted by the DEQ through individual wastewater discharge permits (including those that are currently permitted through State general permit authorizations) shall apply for coverage under this Permit within 90 days of the effective date of this Permit. New hydrostatic test projects shall apply for coverage under this Permit and receive an authorization prior to commencing discharge.

II. APPLICANT ACTIVITY

Hydrostatic testing is the practice of using water to pressure test equipment, piping and vessels prior to putting them into service. Hydrostatic testing may be necessary as the result of either new construction or repairs to existing facilities.

Discharges of hydrostatic test water may originate from a wide variety of facilities, including but not limited to gathering or transmission pipelines, natural gas liquid extraction plants, natural gas processing plants, gas compressor stations, refineries, petrochemical manufacturing plants.

III. RECEIVING WATERBODY INFORMATION

Facilities covered by this Permit will be discharging to various waters of the State/United States. These waters will have varying beneficial uses as designated by the Oklahoma Water Quality Standards (OWQS). This Permit will cover discharges to waters of the State with any or all of the following designated beneficial uses as listed in OAC 785, Chapter 45:

- Public and Private Water Supplies (OAC 785:45-5-10);
- Emergency Public and Private Water Supplies (OAC 785:45-5-11);
- Fish and Wildlife Propagation (OAC 785:45-5-12);
- Agriculture/Livestock and Irrigation (OAC 785:45-5-13);
- Hydroelectric Power Generation (OAC 785:45-5-14);
- Industrial and Municipal Process and Cooling Water (OAC 785:45-5-15);
- Primary Body Contact Recreation (OAC 785:45-5-16);
- Secondary Body Contact Recreation (OAC 785:45-5-17);
- Navigation (OAC 785:45-5-18); and
- Aesthetics (OAC 785:45-5-19).

This Permit will not regulate discharges to waters of the State designated with any of the following additional limitations:

- Outstanding Resource Waters (OAC 785:45-5-25(c)(1));
- Appendix B Waters (OAC 785:45-5-25(c)(2));
- High Quality Waters (OAC 785:45-5-25(c)(3)); or
- Sensitive Public and Private Water Supplies (OAC 785:45-5-25(c)(4)).

Facilities proposing to discharge to receiving waters with these additional limitations shall apply for coverage under individual discharge permits in accordance with requirements to obtain permits contained in "Oklahoma Administrative Code" (OAC), Chapter 606. Depending on the additional limitations applicable, facilities proposing to discharge to these receiving waters may be prohibited from any new point source discharge in accordance with Oklahoma's implementation policies for the antidgradation policy statement (OAC 785:45-5-25).

IV. DISCHARGE INFORMATION

A. DISCHARGE LOCATION

For each proposed outfall, the discharge location shall be specified in the application and the Authorization to discharge under this Permit. The discharge locations shall be specified to within ten acres by use of legal description and specified by latitudes and longitudes.

B. DISCHARGE DESCRIPTION

Wastewater discharges regulated by this Permit are discharges resulting from the hydrostatic testing of the following types of equipment, piping and vessels associated with processing at or located in natural gas liquid extraction plants, natural gas processing plants, gas compressor stations, refineries, petrochemical manufacturing plants or other facilities subject to DEQ jurisdiction: (1) new and existing natural gas equipment, piping and vessels; (2) new and existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels; and (3) new equipment, piping and vessels of other

facilities subject to DEQ jurisdiction. Existing equipment, piping and vessels associated with processing and storage of any chemicals and raw materials other than natural gas, oil, petroleum, and petrochemical product will not be regulated by this Permit, but shall instead apply for coverage under an individual permit.

C. WASTEWATER CHARACTERISTICS

1. Fill Water

Fill water used in hydrostatic testing may come from a variety of sources, such as rivers, streams, lakes, ponds, wells, and municipal and rural drinking water supplies. In many cases, the hydrostatic test water is discharged back into the same water body from which it was taken. In these cases, the pollutants of concern will be those added to the fill water during the hydrostatic test. Where the fill water is discharged into a different water body, the pollutants of concern will not only be those added during the pipeline test, but also those contained in the fill water prior to the test. When the fill water is obtained from a municipal or rural drinking water supply, residual chlorine may also be a pollutant of concern.

2. Nature and Volume of Hydrostatic Test Water Discharges

Hydrostatic testing is generally performed by sealing the equipment, piping or vessel to be tested and providing a water fill location. After the equipment, piping or vessel is full, the pressure is increased to the desired level using a high pressure pump system and then held at pressure for several hours (in some cases, hydrostatic testing may be performed at atmospheric pressure). Following the test, the pressure is released and the equipment, piping or vessel is drained by gravity flow, pumping or air pressure. Hydrostatic test water discharges are, therefore, batch discharges of short term duration. For these reasons, limits in this Permit will be expressed in terms of daily maximum concentrations, as allowed by 40 CFR 122.45(e) and (f).

A review of permits issued by the Oklahoma Department of Environmental Quality for the last five years indicate that the storage volume for tanks ranged from 1.1 to 15.5 million gallons per tank. There were five permits involved and the source water was either from a municipality or water stored on hand at the facility. All of the facility's were permitted to discharge into waters of the state.

Pipeline testing over the same period ranged from 10,000 to 20,000 gallons per test. The discharge was generally to storage at the facility.

3. New Equipment, Piping and Vessels

New equipment, piping and vessels should be relatively free of pollutants that could be discharged along with the hydrostatic test water. Pollutants in the equipment, piping or vessel prior to the hydrostatic test may include construction debris, suspended solids from soil and welding solids, lubricating oil and pH.

4. Existing Natural Gas Equipment, Piping and Vessels

Sources of contamination in hydrostatic test water discharged from existing natural gas equipment, piping and vessels may include hydrocarbon condensates and residues left by the natural gas. Large molecular weight petrochemicals tend to deposit on the internal equipment, piping and vessel walls due to retrograde gas condensation. Hydrocarbons typically found in gas condensates which may contaminate the test water include benzene, toluene and xylenes. Scale, compressor engine oil, and organic and inorganic corrosion inhibitors can also be found in natural gas equipment, piping and vessels.

Several studies of hydrostatic test water discharges from existing natural gas pipelines have been performed (Sprester, et al., "Characterization and Treatment of Spent Hydrostatic Test Water in the Natural Gas Industry," 41st Purdue University Industrial Waste Conference Proceedings; Tallon, Myerski and Fillo, "Environmental Aspects of Hydrostatic Test Water Discharges: Operations, Characterization, Treatment and Disposal," prepared for the Gas Research Institute, April 1996). These studies showed that benzene and BTEX have the potential of being of concern in hydrostatic test water discharges from existing natural gas pipelines, with benzene being the main component of the BTEX analytical results. The studies

also showed that benzene is an appropriate surrogate parameter representing the toxic hydrocarbons which may be discharged along with the test water. These studies should also be partly indicative of hydrostatic test water discharges from existing natural gas equipment, piping and vessels located in natural gas liquid extraction plants, natural gas processing plants, or other facilities subject to DEQ jurisdiction.

5. Existing Oil, Petroleum, Petroleum Product or Petrochemical Equipment, Piping and Vessels

Sources of contamination in hydrostatic test water discharged from existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels include hydrocarbon condensates, distillates and residues. These condensates, distillates and residues may contain benzene and other BTEX constituents, as well as other medium to high molecular weight petrochemicals. Scale, compressor engine oil, and organic and inorganic corrosion inhibitors can also be found in oil, petroleum, petroleum product or petrochemical equipment, piping and vessels.

6. Other Existing Equipment, Piping and Vessels

Other existing equipment, piping and vessels (e.g., for organic chemicals, inorganic chemicals, etc.) have the potential to contain a wide range of additional toxic pollutants that cannot be adequately controlled through a general permit. Individual permits will therefore be required for these hydrostatic test water discharges to assure that water quality standards are not violated and beneficial uses of the receiving waters are maintained.

V. RATIONALE FOR DETERMINING DISCHARGE PERMIT LIMITS

The following sections set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft general permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under 40 CFR Part 122.44 and Oklahoma Pollutant Discharge Elimination Act (OPDES), OAC 252:606-5, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under 40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternative effluent limitations were developed.

In accordance with regulations promulgated at 40 CFR Part 122.44(d), the draft permit limits are based on the more stringent of technology-based limitations or applicable water quality-based limitations.

A. TECHNOLOGY BASED EFFLUENT LIMITATIONS AND CONDITIONS

1. General Comments Regulations promulgated in 40 CFR 122.44(a) and OAC 252:606-5-2(a)(1) require technology-based effluent limitations to be placed in OPDES permits based on effluent limitations guidelines, where applicable, on Best Professional Judgment (BPJ) in the absence of guidelines or on a combination of the two.

2. Applicable Effluent Limitations Guidelines (ELG's)

Technology-Based Effluent Limitations Guidelines have not been promulgated for this category of discharge.

3. Best Professional Judgment of the Permit Drafter

Under authority of the Clean Water Act and State laws, the State has developed this permit on a case-specific basis since ELG's have not been developed for this category of discharge.

Since hydrostatic test water discharges are batch discharges of short term duration, limits in this Permit will be expressed in terms of daily maximum concentrations rather than in terms of mass limitations, as allowed by 40 CFR 122.45(e) and (f).

a. New Equipment, Piping and Vessels

Pollutants that have the potential to be discharged in hydrostatic test water from new equipment, piping and vessels are TSS, oil and grease, and pH.

Total Suspended Solids -- The permit limit of 45 mg/l daily maximum for Total Suspended Solids is BPJ based on the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

Oil and Grease -- The permit limit of 15 mg/l daily maximum for Oil and Grease is BPJ based on previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

pH -- The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units was established in the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, and was based on hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs). However, the Oklahoma Water Quality Based Limits of 6.5 standard units to 9.0 standard units will be established for this permit. (See Section V(B)(2)(b).

b. Existing Natural Gas Equipment, Piping and Vessels

Pollutants that have the potential to be discharged in hydrostatic test water from existing natural gas equipment, piping and vessels are benzene, TSS, oil and grease, and pH.

Benzene – The permit limit of 50 µg/l daily maximum for Benzene is BPJ based on hydrostatic test general permits developed by other states and EPA. This limit should also serve to control the discharge of other BTEX constituents.

Total Suspended Solids -- The permit limit of 45 mg/l daily maximum for Total Suspended Solids is BPJ based on the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

Oil and Grease -- The permit limit of 15 mg/l daily maximum for Oil and Grease is BPJ based on previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

pH -- The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units was established in the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, and was based on hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs). However, the Oklahoma Water Quality Based Limits of 6.5 standard units to 9.0 standard units will be established for this permit. (See Section V(B)(2)(b).

c. Existing Oil, Petroleum, Petroleum Product or Petrochemical Equipment, Piping and Vessels

Pollutants that have the potential to be discharged in hydrostatic test water from existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels are benzene, TOC, TSS, oil and grease and pH.

Benzene – The permit limit of 50 µg/l daily maximum for Benzene is BPJ based on hydrostatic test general permits developed by other states and EPA. This limit should also serve to control the discharge of other BTEX constituents.

Total Petroleum Hydrocarbon [Gasoline Range Organics (GRO) and Diesel Range Organics (DRO)] – A permit limit of 1 mg/l total for GRO and DRO has been added to this general permit in lieu of the limits previously set for Total Organic Carbon. This limit should serve to control the discharge of high molecular weight petroleum hydrocarbons that fall

outside the range of molecular weights measured by the oil and grease test.

Total Suspended Solids -- The permit limit of 45 mg/l daily maximum for Total Suspended Solids is BPJ based on the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

Oil and Grease -- The permit limit of 15 mg/l daily maximum for Oil and Grease is BPJ based on the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs).

pH -- The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units was established in the previous State General Permit No. OKG 270000 as revised on August 2, 2001 for this type of discharge, and was based on hydrostatic test general permits developed by other states and EPA, and data submitted by permittees through Self-Monitoring Reports (SMRs). However, the Oklahoma Water Quality Based Limits of 6.5 standard units to 9.0 standard units will be established for this permit. (See Section V(B)(2)(b).

d. Other Existing Equipment, Piping and Vessels

Discharges of hydrostatic test water from other existing equipment, piping and vessels are not covered by this Permit, but must instead obtain coverage through individual permits.

e. Other Technology-Based Permit Conditions

The discharge of hydrostatic test water to which treatment chemicals, corrosion inhibitors or biocides have been added is prohibited. This prohibition does not prohibit the use of fill water whose source is a municipal or rural drinking water supply, except where the permittee has added additional treatment chemicals, corrosion inhibitors or biocides. Such additives could be the source of a range of toxic pollutants in the test water discharge.

The discharge of precleaning wastes is prohibited. Precleaning waste means the waste generated from activities such as washing the equipment, piping or vessels with water or a detergent solution prior to the hydrostatic test and/or prepigging the equipment, piping or vessels prior to the hydrostatic test. Such wastes may contain any of a wide variety of toxic pollutants that were removed from the equipment, piping or vessels during the precleaning operation.

There shall be no impingement and entrainment of fish when drawing water from a surface water body.

B. WATER QUALITY BASED EFFLUENT LIMITATIONS AND/OR CONDITIONS

1. GENERAL COMMENTS

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." A permit that contains technology-based permit limits alone may not adequately protect the quality of the receiving stream. Thus, additional water quality-based effluent limitations and/or conditions are considered in the general permit using State narrative and numerical water quality standards (Oklahoma's Water Quality Standards, as amended (OAC Title 785)). This is to insure that no point source discharge (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard; or (3) results in aquatic bioaccumulation which threatens human health.

2. WATER QUALITY STANDARDS REQUIREMENTS

The narrative and numerical stream standards are provided in "Oklahoma's Water Quality Standards, as amended," Oklahoma Water Resources Board(27A O.S. 2004, Section 2-6-103 and 82 O.S. 2001, Sections 1085.2 and 1085.30).

Where actual or potential exceedances of State water quality criteria are determined to be the result of the facility's discharge to the receiving water(s) or where reasonable potential to violate water quality standards is determined to exist, the DEQ may determine that the facility is no longer eligible for coverage under this Permit and require the facility to apply for an individual discharge permit with additional chemical-specific limits or toxicity testing requirements as necessary to maintain the beneficial uses of the receiving stream.

a. Public and private water supplies (OAC 785:45-5-10)

Test water being discharged from hydrostatic testing of new equipment, piping and vessels should not contain substances listed in Raw Water Numerical Criteria (785:45-5-10(1)) and Water Column Criteria to Protect for the Consumption of Fish Flesh and Water (785:45-5-10(6)) at levels which would have reasonable potential to violate numerical criteria.

Benzene is being used as a surrogate parameter for the hydrocarbons that might be present in the test water being discharged from hydrostatic testing of existing natural gas, oil, petroleum, petroleum product or petrochemical equipment, piping and vessels. The proposed daily maximum BAT limit for benzene of 50 µg/l is less stringent than the long-term average numerical human health criterion to protect for consumption of fish flesh and water of 11.87 µg/l. However, since all of these hydrostatic test water discharges are of a very short term batch nature, compliance with the BAT-based benzene permit limit should assure compliance with human health criteria for consumption of fish flesh and water over the long term.

In addition, the prohibitions against discharging hydrostatic test water to which treatment chemicals, corrosion inhibitors or biocides and against discharge of pre-cleaning wastes should also assure compliance with human health criteria for consumption of fish flesh and water.

Thus, additional permit action is not necessary for this beneficial use.

b. Fish and Wildlife Propagation (OAC 785:45-5-12)

Toxics -- Test water being discharged from new equipment, piping and vessels should not contain substances listed in Toxic Substances (785:45-5-12(f)(6)) and Water Column Criteria to Protect for the Consumption of Fish Flesh and Water (785:45-5-10(6)) at levels which would have reasonable potential to violate numerical criteria.

Benzene is being used as a surrogate parameter for the hydrocarbons that might be present in the test water being discharged from existing natural gas, oil, petroleum, petroleum product or petrochemical equipment, piping and vessels. The proposed daily maximum BAT limit for benzene of 50 µg/l is more stringent than both the chronic criterion of 2200 µg/l and the long-term average numerical human health criterion to protect for consumption of fish flesh of 714.1 µg/l. Thus, compliance with the BAT-based benzene permit limit should assure compliance with both chronic criteria and human health criteria for consumption of fish flesh.

In addition, the prohibitions against discharging hydrostatic test water to which treatment chemicals, corrosion inhibitors or biocides and against discharge of precleaning wastes should also assure compliance with numerical acute and chronic criteria and human health criteria for consumption of fish flesh.

The source of fill water for many, but not all, hydrostatic tests is the receiving water to which the spent test water will be discharged. As discussed in Section IV.C.1 of this fact sheet, one potential source of new pollutants or increased levels of pollutants in the test water discharge is the fill water itself where its source is different from the receiving water to which it is discharged. Where the source of fill water is a municipal or rural drinking water supply a Total Residual Chlorine limit of "no measurable" (defined as <0.1 mg/l instantaneous maximum) will be applied.

Oil and Grease – According to OWQS as amended, OAC 785:45-5-12(4), "All waters having the designated beneficial use of any subcategory of fish and wildlife propagation shall be maintained free of oil and grease to prevent a visible sheen of oil or globules of oil or grease on or in the water."

Therefore, a narrative prohibition to the effect that “there shall be no discharge of visible sheen of oil or globules of oil or grease” is being included in the draft permit. In addition, the technology-based limit of 15 mg/l for Oil and Grease should help assure that the narrative criterion is maintained.

pH -- According to OWQsas amended, OAC 785:45-5-12(3), "The pH values shall be between 6.5 and 9.0 in waters designated for fish and wildlife propagation; unless pH values outside that range are due to natural conditions."

Therefore, permit limitations for pH of 6.5 to 9.0 standard units are being placed in this Permit based on a reasonable potential to violate water quality standards. The proposed water quality-based daily minimum pH limit of 6.5 s.u. is more stringent than the technology-based daily minimum pH limit of 6.0 s.u. used in the previous permit..

c. Agriculture/Livestock and Irrigation (OAC 785:45-5-13)

Hydrostatic testing of equipment, piping and vessels should not result in significant increases in levels of chloride, sulfate or total dissolved solids in the test water above levels contained in the fill water. Where the fill water is from the same source as the receiving water, levels of chloride, sulfate and total dissolved solids in the test water should be essentially the same as in the receiving water.

Where the fill water is from a source that is different from the receiving water, levels of chloride, sulfate and total dissolved solids in the test water may vary from those in the receiving water. However, the fact that these hydrostatic test water discharges are of a very short term batch nature, should assure that the Agriculture beneficial use is maintained.

Thus, additional permit action is not necessary for this beneficial use.

d. Primary Body Contact Recreation (OAC 785:45-5-16)

Hydrostatic test wastewater should not contain coliform bacteria, Escherichia coli, and Enterococci at significant levels.

Thus, permit action is not necessary for this beneficial use.

VI. ENDANGERED SPECIES ACT

The DEQ has concluded that issuance of this OPDES general permit is unlikely to adversely affect any endangered or candidate species or the critical habitat. The effluent limitations established in the permit and the short-term batch nature of hydrostatic test discharges ensure protection of aquatic life and maintenance of the receiving stream as aquatic habitat. In addition, the prohibition against impingement and entrainment of fish when drawing water from a surface water body should prevent accidental take of endangered or candidate species.

A copy of the draft general permit and fact sheet have been forwarded to the U.S. Fish and Wildlife Service for review. If comments are received from this agency, additional conditions may be included in the final permit.

VII. 303(d) LIST AND ANTIDegradation EVALUATION

This General Permit shall not cover those facilities discharging greater than one million gallons per day (1 MGD) of process wastewater or discharging to the following waters: Outstanding Resource Waters; High Quality Waters; Sensitive Public and Private Water Supplies. A list of these waters can be found at OAC 785:45-5. Additional waters that cannot be discharged into, include: Appendix ‘B’ Waters [OAC 785:45-5-25(c) (2)]; and receiving streams included in Oklahoma’s ‘303(d) List’ of impaired water bodies where the impairment is caused by “Oil and Grease” (Cause code 1900), “Total Suspended Solids” (Cause Code 2100), Turbidity (Cause Code 2500) or “pH” (Cause Code 1000) for which

a Total Maximum Daily Load (TMDL) has not been performed or the result of the TMDL indicates that discharge limits more stringent than 45 mg/l for Total Suspended Solids (TSS) or pH more stringent than 6.5-9.0 standard units are required. In addition, this General Permit will not cover those facilities located on Indian Country Lands or that require more stringent stormwater controls than allowed by this General Permit.

VIII. DRAFT PERMIT LIMITS AND OTHER REQUIREMENTS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The effluent limitations listed in Table 1 will apply to discharges resulting from the hydrostatic testing of the following types of equipment, piping and vessels associated with processing at or located in natural gas liquid extraction plants, natural gas processing plants, refineries, petrochemical manufacturing plants, or other facilities subject to DEQ jurisdiction: (1) new and existing natural gas equipment, piping and vessels; (2) new and existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels; and (3) other new equipment, piping and vessels.

TABLE 1
EFFLUENT LIMITATIONS

Parameters	Technology-based		Water-Quality-based		Draft Permit	
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.
Flow (MGD)	Report	Report	N/A	N/A	Report	Report
Benzene ⁽¹⁾	N/A	50 µg/l	N/A	N/A	N/A	50 µg/l
Oil and Grease	N/A	15 mg/l	N/A	N/A	N/A	15 mg/l
T P H	Gasoline Range Organics (GRO) ⁽²⁾	N/A	N/A	N/A	N/A	1 mg/l ⁽³⁾
	Diesel Range Organics (DRO) ⁽²⁾	N/A	N/A	N/A	N/A	1 mg/l ⁽³⁾
TSS	N/A	45 mg/l	N/A	N/A	N/A	45 mg/l
Total Residual Chlorine ⁽⁴⁾	N/A	N/A	N/A	Report (4)	N/A	No Measurable ⁽⁵⁾
pH	between 6.0 - 9.0 s.u.		between 6.5 - 9.0 s.u.		between 6.5 - 9.0 s.u.	

⁽¹⁾The Benzene limit and monitoring requirement applies only to discharges from existing natural gas, oil, petroleum, petroleum product or petrochemical equipment, piping and vessels.

⁽²⁾The GRO and DRO limit and monitoring requirement applies only to discharges from existing oil, petroleum, petroleum product or petrochemical equipment, piping and vessels.

⁽³⁾The Daily Maximum Limit of 1mg/l is the total combined amount allowed for the GRO and DRO.

⁽⁴⁾The TRC limit and monitoring requirement applies only when the fill water is from a municipal or rural drinking water supply.

⁽⁵⁾No measurable; defined as <0.1 mg/l instantaneous maximum.

Monitoring requirements listed in Table 2 shall become effective along with the effluent limitations listed in Table 1.

TABLE 2
MONITORING REQUIREMENTS

PARAMETERS	MEASUREMENT FREQUENCY ⁽¹⁾	SAMPLE TYPE
Flow (MGD)	Daily	Estimate ⁽²⁾
Benzene	1/Discharge Event	Grab ⁽³⁾
Oil and Grease	1/Discharge Event	Grab ⁽³⁾
Gasoline Range Organics (GRO)	1/Discharge Event	Grab ⁽³⁾

Diesel Range Organics (DRO)	1/Discharge Event	Grab ⁽³⁾
TSS	1/Discharge Event	Grab ⁽³⁾
TRC	1/Discharge Event	Grab ⁽⁴⁾
pH	1/Discharge Event	Grab ⁽³⁾

- (1) When discharging.
- (2) Flow may be estimated by calculating the volume of water that can be contained in the equipment, piping or vessels being tested, and prorating it over the duration of the discharge.
- (3) Grab samples shall be taken of the hydrostatic test water being discharged as it leaves the equipment, piping or vessels being tested at the beginning and at the end of the discharge and two times during the discharge at evenly spaced time intervals. All of the grab samples shall be combined into one composite sample at the end of the test period for analysis.
- (4) Grab samples shall be taken of the hydrostatic test water being discharged as it leaves the equipment, piping or vessels being tested at the beginning and at the end of the discharge and two times during the discharge at evenly spaced time intervals. Each grab sample shall be tested individually, and the highest result reported.

Additional Requirements:

The discharge of hydrostatic test water to which treatment chemicals, corrosion inhibitors or biocides have been added is prohibited. This prohibition does not prohibit the use of fill water whose source is a municipal or rural drinking water supply, except where the permittee has added additional treatment chemicals, corrosion inhibitors or biocides.

The discharge of pre-cleaning wastes is prohibited. Pre-cleaning waste means the waste generated from activities such as washing the equipment, piping or vessels with water or a detergent solution prior to the hydrostatic test and/or pre-pigging the equipment, piping or vessels prior to the hydrostatic test.

There shall be no impingement and entrainment of fish when drawing water from a surface water body.

All hydrostatic test water shall be free from any kind of welding scrap or other foreign material before being discharged into the receiving waters.

There shall be no discharge of any wastewater except those resulting from hydrostatic testing of equipment, piping or vessels within the scope of this Permit, unless such discharge is authorized through a separate individual or general OPDES discharge permit.

The permittee shall take such steps as are necessary to prevent or minimize flooding, stream channel scouring or erosion of materials and soils into surface waters caused by the discharge.

No polychlorinated biphenyls (PCBs) shall be contained in compressor lubricants.

There shall be no discharge of visible sheen of oil or globules of oil or grease.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

B. REPORTING OF MONITORING RESULTS

Monitoring results shall be reported in accordance with the provisions of Part III.E.4 of the Permit. Monitoring results obtained during the previous month shall be summarized and reported on the Discharge Monitoring Report (DMR) forms postmarked no later than the 15th day of the following month. If no discharge occurs during the reporting period, DMR forms stating "No Discharge" shall be submitted according to the above schedule.

C. SURFACE IMPOUNDMENTS

The use of surface impoundments for treatment and/or disposal of hydrostatic test water is not standard industrial practice for this type of operation, and thus is not included in this general permit.

D. LAND APPLICATION

The use of land application for treatment and/or disposal of hydrostatic test water at facilities regulated by the DEQ is not included in this permit.

E. REMOVED SUBSTANCES

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a State- approved industrial waste disposal site or to a company for recycling.

If any such industrial wastes are removed from the facility, the permittee shall keep accurate records which include the following information:

- a. Name and address of company hauling waste.
- b. The type and amount of waste hauled.
- c. The final disposal site of waste hauled.

Upon request, the above records shall be made available to the DEQ's staff for review.

IX. ADMINISTRATIVE RECORD

The following sources were used to prepare this Permit and constitute a part of the administrative record for this Permit:

A. DEQ RECORDS

- Industrial Permit files containing permits, applications and monitoring data.

B. FEDERAL WATER POLLUTION CONTROL ACT (CLEAN WATERACT), 33 U.S.C. 1251 ET.SEQ.

- Section 301 and 402(a).

C. FEDERAL RULES AND REGULATIONS

- 40 CFR, in particular, Parts 122, 124, 136.

D. STATE LAW, STANDARDS, AND RULES AND REGULATIONS

- Oklahoma Pollutant Discharge Elimination System (OPDES) Act, 27A O.S. Supp.as amended, §2-6-201 et.seq.
- OAC 252:606.
- Oklahoma's Water Quality Standards, as amended.
- Oklahoma Continuing Planning Process Document (CPP), as amended.

X. REVIEW BY OTHER AGENCIES AND FINAL DETERMINATION

A draft permit, fact sheet and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service upon publication of that notice. If comments are received from these agencies or other State or Federal agencies with jurisdiction over fish, wildlife, or public health, additional conditions may be included in accordance with regulations promulgated under 40 CFR Part 124.59.

The public notice describes the procedures for the formulation of final determinations.