
**ORDER REGARDING JUNE 12, 2015 NOTICE OF APPEAL, REQUEST FOR
ADJUDICATORY HEARING, AND REQUEST FOR STAY**

In Re: XTO Energy Incorporated, Colorado Discharge Permit Nos. CO 0048054 and CO 0048062

Attachment 1 Permit No. CO0048054 Stayed and Corresponding Effective Terms and Conditions, Revised June 26, 2015

WET STAYED TERMS AND CONDITIONS

Stayed Terms and Conditions Associated With Effluent Limitations and Monitoring Requirements

Outfalls 010A, 012A, 016A, 018A, 019A, 021A, 025A, 027A, 028A, 031A, 032A, 034A, 035A, 037A, 039A, 040A, 042A, 045A, 047A, 049A, 050A, 051A, 057A, 066A, 067A, 068A, 069A, 070A, 072A, 073A, 074A, 078A, 082A, 083A, 084A, 093A

<u>ICIS Code</u>	<u>Effluent Parameter</u>	<u>Effluent Limitations</u>	<u>Monitoring Requirements</u>	
		<u>Maximum Concentrations</u>		
		<u>Daily Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
TKP6C	Static Renewal 7 Day Chronic <i>Pimephales promelas</i> , Until June 30, 2017	Report, NOEC or IC25 \geq IWC	Quarterly	3 Grabs / Test
TKP3B	Static Renewal 7 Day Chronic <i>Ceriodaphnia dubia</i> Until June 30, 2017	Report, NOEC or IC25 \geq IWC	Quarterly	3 Grabs / Test
	WET, chronic, delayed effective date July 1, 2017			
TKP6C	Static Renewal 7 Day Chronic <i>Pimephales promelas</i>	NOEC or IC25 \geq IWC	Quarterly	3 Grabs / Test
TKP3B	Static Renewal 7 Day Chronic <i>Ceriodaphnia dubia</i>	NOEC or IC25 \geq IWC	Quarterly	3 Grabs / Test

Stayed Terms and Conditions Associated with Compliance Schedules

d. Activities to Meet Chronic Whole Effluent Toxicity (WET) – During the previous permit term, the permittee was given time to conduct research into determining causes of chronic toxicity. Building upon the work already conducted, the Division is allowing an abbreviated compliance schedule to give the permittee time to finalize the work already done and implement strategies to eliminate toxicity.

Code	Event	Description	Due Date
06599	Hire a Consultant/ Professional Engineer	Submit a letter of notification that a Colorado licensed engineering consultant has been obtained to design treatment processes or indicate that underground injection or other method is selected	12/31/2015
CS015	Commence Required Work or On-Site Construction	Submit a letter of notification that construction has commenced, or if underground injection was selected provide a progress update.	07/01/2016
CS016	Complete Required Work or On-Site Construction	Complete construction of facilities or other appropriate actions, which will allow the permittee to meet the final limitations.	06/30/2017

Stayed Terms and Conditions Associated with Chronic WET Testing

3. Chronic WET Testing – Outfalls(s): ALL OUTFALLS

a. General Chronic WET Testing and Reporting Requirements

The permittee shall conduct the chronic WET test using *Ceriodaphnia dubia* and *Pimephales promelas*, as a static renewal 7-day test using three separate grab samples. The permittee shall conduct each chronic WET test in accordance with the 40 CFR Part 136 methods described in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002 (EPA-821-R-02-013) or the most current edition.

The following minimum dilution series should be used: 0% effluent (control), 20%, 40%, 60%, 80% and 100% effluent. If the permittee uses more dilutions than prescribed, and accelerated testing is to be performed, the same dilution series shall be used in the accelerated testing (if applicable) as was initially used in the failed test.

Tests shall be done at the frequency listed in Part I.A.2. Test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting period when the sample was taken. (i.e., WET testing results for the calendar quarter ending March 31 shall be reported with the DMR due April 28, etc.) The permittee shall submit all laboratory statistical summary sheets, summaries of the determination of a valid, invalid or inconclusive test, and copies of the chain of custody forms, along with the DMR for the reporting period.

If a test is considered invalid, the permittee is required to perform additional testing during the monitoring period to obtain a valid test result. Failure to obtain a valid test result during the monitoring period shall result in a violation of the permit for failure to monitor.

b. Violations of the Permit Limit, Failure of One Test Statistical Endpoint and Division Notification

A chronic WET test is considered a violation of a permit limitation when both the NOEC and the IC25 are at any effluent concentration less than the IWC. The IWC for this permit has been determined to be 100% effluent.

A chronic WET test is considered to have failed one of the two statistical endpoints when either the NOEC or the IC₂₅ are at any effluent concentration less than the IWC. The IWC for this permit has been determined to be 100% effluent

In the event of a permit violation, or during a report only period when both the NOEC and the IC25 are at any effluent concentration less than the IWC, or when two consecutive reporting periods have resulted in failure of one of the two statistical endpoints (regardless of which statistical endpoints are failed), the permittee must provide written notification to the Division. Such notification should explain whether it was a violation or two consecutive failures of a single endpoint, and must indicate whether accelerated testing or a Toxicity Identification Evaluation or Toxicity Reduction Evaluation (TIE or TRE) is being performed, unless otherwise exempted, in writing, by the Division. If the permittee is already conducting a TRE from previous failures, or as a result of a compliance schedule, no additional TREs are required. **Regardless of the nature of the failure, notification must be received by the Division within 14 calendar days of the permittee receiving notice of the WET testing results.**

c. Automatic Compliance Response

The permittee is responsible for implementing the automatic compliance response provisions of this permit when one of the following occurs:

- there is a violation of the permit limit (both the NOEC and the IC25 endpoints are less than the applicable IWC)
- during a report only period when both the NOEC and the IC25 are at any effluent concentration less than the IWC
- two consecutive monitoring periods have resulted in failure of one of the two statistical endpoints (either the IC25 or the NOEC)
- the permittee is otherwise informed by the Division that a compliance response is necessary

When one of the above listed events occurs, the following automatic compliance response shall apply. The permittee shall:

- Conduct a Toxicity Identification Evaluation (TIE) or a Toxicity Reduction Evaluation (TRE) investigation as described below.

ii. Toxicity Identification Evaluation (TIE) or Toxicity Reduction Evaluation (TRE)

If a TIE or a TRE is being performed, the results of the investigation are to be received by the Division within 180 calendar days of the demonstration chronic WET in the routine test, as defined above, or by the deadline in a compliance schedule. A status report is to be provided to the Division at the 60 and 120 calendar day points of the TIE or TRE investigation, or as directed under a compliance schedule.

The Division recommends that the EPA guidance documents regarding TIEs or TREs be followed. If another method is to be used, this procedure should be submitted to the Division (Compliance Section) for approval prior to initiating the TIE or TRE.

If the pollutant(s) causing toxicity is/are identified, and is/are controlled by a permit effluent limitation(s), this permit may be modified upon request to adjust permit requirements regarding the automatic compliance response.

If the pollutant(s) causing toxicity is/are identified, and is/are not controlled by a permit effluent limitation(s), the Division may develop limitations the parameter(s), and the permit may be reopened to include these limitations.

If the pollutant causing toxicity is not able to be identified, or is unable to be specifically identified, or is not able to be controlled by an effluent limit, the permittee will be required to ; .

Move to a TRE by identifying the necessary control program or activity and proceed with elimination of the toxicity so as to meet the WET effluent limit.

The control program developed during a TRE consists of the measures determined to be the most feasible to eliminate WET. This may happen through the identification of the toxicant(s) and then a control program aimed specifically at that toxicant(s) or through the identification of more general toxicant treatability processes. A control program is to be developed and submitted to the Division within 180 calendar days of beginning a TRE, or as directed under a compliance schedule. Status reports on the TRE are to be provided to the Division at the 60 and 120 calendar day points of the TRE investigation, or as directed under a compliance schedule.

d. Toxicity Reopener

This permit may be reopened and modified to include additional or modified numerical permit limitations, new or modified compliance response requirements, changes in the WET testing protocol, the addition of both acute and chronic WET requirements, or any other conditions related to the control of toxicants.

WET CORRESPONDING EFFECTIVE TERMS AND CONDITIONS

Corresponding Effective Terms and Conditions Associated With Effluent Limitations and Monitoring Requirements

Outfalls 010A, 012A, 016A, 018A, 019A, 021A, 025A, 027A, 028A, 031A, 032A, 034A, 035A, 037A, 039A, 040A, 042A, 045A, 047A, 049A, 050A, 051A, 057A, 066A, 067A, 068A, 069A, 070A, 072A, 073A, 074A, 078A, 082A, 083A, 084A, 093A

<u>Effluent Parameter</u>	<u>Effluent Limitations Maximum Concentrations</u>				<u>Monitoring Requirements</u>	
	<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Daily Maximum</u>	<u>2-Year Average</u>	<u>Frequency</u>	<u>Sample Type</u>
WET, chronic						
Pimephales Lethality			Report Stat Diff & IC25		Annual	3 Grabs / Test****
Ceriodaphnia Lethality					Annual	3 Grabs / Test****
Pimephales Toxicity			Report Stat Diff & IC25		Annual	3 Grabs / Test****
Ceriodaphnia Toxicity					Annual	3 Grabs / Test****

**** Due to the remote location of the discharges, the 3 grab samples for the WET tests may be taken on the same day, as long as the proper techniques are used for sample preservation and storage.

Corresponding Effective Terms and Conditions Associated with Compliance Schedules

There are no corresponding effective terms and conditions associated with compliance schedules.

Corresponding Effective Terms and Conditions Associated with Chronic WET Testing

3. Chronic WET Testing

a. Testing and Reporting Requirements

Tests shall be done at the frequency listed in Part I.A.2. Test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the reporting period during which the sample was taken. (i.e., WET testing results for the first calendar quarter ending March 31 shall be reported with the DMR due April 28.) The results shall be submitted on the Chronic Toxicity Test report form, available from the Division. Copies of these reports are to be submitted to both the Division and EPA along with the DMR.

The permittee shall conduct each chronic WET test in general accordance with methods described in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001 or the most current edition, except as modified by the most current Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests. The permittee shall conduct such tests using *Ceriodaphnia dubia* and fathead minnows.

b. Failure of Test and Division Notification

A chronic WET test is failed whenever 1) there is a statistically significant difference in lethality between the control and any effluent concentration less than or equal to the instream waste concentration (IWC) and, 2) the IC25, which represents an estimate of the effluent concentration at which 25% of the test organisms demonstrate inhibition as reflected by lethality, is at any effluent concentration less than or equal to the IWC. The IWC for this permit has been determined to be 100. The permittee must provide written notification of the failure of a WET test to the Division, along with a statement as to whether a Preliminary Toxicity Investigation (PTI)/Toxicity Identification Evaluation (TIE) or accelerated testing is being performed (see Part I.B.3.). **Notification must be received by the Division within 21 calendar days of the demonstration of chronic WET in the routine required test.** Demonstration for the purposes of Parts I.B.3.b., c., d. and f. means no later than the last day of the laboratory test.

c. Automatic Compliance Schedule Upon Failure of Test

If a routine chronic WET test is failed, regardless of whether the limit is in effect, the following automatic compliance schedule shall apply. As part of this, the permittee shall either:

- i. Proceed to conduct the PTI/TIE investigation as described in Part I.B.3.d., or
- ii. Conduct accelerated testing using the single species found to be more sensitive.

If accelerated testing is being performed, the permittee shall provide written notification of the results within 14 calendar days of completion of the Pattern of Toxicity/No Toxicity demonstration. Testing will be at least once every two weeks for up to five tests until; 1) two consecutive tests fail or three of five tests fail, in which case a pattern of toxicity has been demonstrated or 2) two consecutive tests pass or three of five tests pass, in which case no pattern of toxicity has been found. If no pattern of toxicity is found the toxicity episode is considered to be ended and routine testing is to resume. If a pattern of toxicity is found, a PTI/TIE investigation is to be performed. If a pattern of toxicity is not demonstrated but a significant level of erratic toxicity is found, the Division may require an increased frequency of routine monitoring or some other modified approach.

d. PTI/TIE

The results of the PTI/TIE investigation are to be received by the Division within 120 days of the demonstration of chronic WET in the routine test, as defined above, or if accelerated testing is performed, the date the pattern of toxicity is demonstrated. A status report is to be provided to the Division at the 30, 60, and 90 day points of the PTI/TIE investigation. The Division may extend the time frame for investigation where reasonable justification exists. A request for an extension must be made in writing and received prior to the 120 day deadline. Such request must include a justification and supporting data for such an extension.

The permittee may use the time for investigation to conduct a PTI or move directly into the TIE. A PTI consists of a brief search for possible sources of WET, which might reveal causes of such toxicity and appropriate corrective actions more simply and cost effectively than a formal TIE. If the PTI allows resolution of the WET incident, the TIE need not necessarily be conducted. If, however, WET is not identified or resolved during the PTI, the TIE must be conducted within the allowed 120 day time frame.

Any permittee that is required to conduct a PTI/TIE investigation shall do so in conformance with the procedures identified in the following documents, or as subsequently updated: 1) Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA/600/6-91/005F May 92, 2) Methods for Aquatic Toxicity Identification Evaluations, Phase I Toxicity Characterization Procedures, EPA/600/6-91/003 Feb. 91 and 3) Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures, EPA/600/3-88/035Feb. 1989.

A fourth document in this series is Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures, EPA/600/3-88/036 Feb. 1989. As indicated by the title, this procedure is intended to confirm that the suspected toxicant is truly the toxicant. This investigation is optional.

Within 90 days of the determination of the toxicant or no later than 210 days after demonstration of toxicity, whichever is sooner, a control program is to be developed and received by the Division. The program shall set down a method and procedure for elimination of the toxicity to acceptable levels.

e. Request For Relief

The permittee may request relief from further investigation and testing where the toxicant has not been determined and suitable treatment does not appear possible. In requesting such relief, the permittee shall submit material sufficient to establish the following:

- i. It has complied with terms and conditions of the permit compliance schedule for the PTI/TIE investigation and other appropriate conditions as may have been required by the WQCD;
- ii. During the period of the toxicity incident it has been in compliance with all other permit conditions, including, in the case of a POTW, pretreatment requirements;
- iii. During the period of the toxicity incident it has properly maintained and operated all facilities and systems of treatment and control; and
- iv. Despite the circumstances described in paragraphs (i) and (iii) above, the source and/or cause of toxicity could not be located or resolved.

If deemed appropriate by the Division, the permit or the compliance schedule may be modified to revise the ongoing monitoring and toxicity investigation requirements to avoid an unproductive expenditure of the permittee's resources, provided that the underlying obligation to eliminate any continuing exceedance of the toxicity limit shall remain.

f. Spontaneous Disappearance

If toxicity spontaneously disappears at any time after a test failure, the permittee shall notify the Division in writing within 14 days of a demonstration of disappearance of the toxicity. The Division may require the permittee to develop and submit additional information, which may include, but is not limited to, the results of additional testing.

If no pattern of toxicity is identified or recurring toxicity is not identified, the toxicity incident response is considered closed and normal WET testing shall resume.

g. Toxicity Reopener

This permit may be reopened and modified (following proper administrative procedures) to include new compliance dates, additional or modified numerical permit limitations, a new or different compliance schedule, a change in the whole effluent toxicity testing protocol, or any other conditions related to the control of toxicants if one or more of the following events occur:

- i. Toxicity has been demonstrated in the effluent and the permit does not contain a toxicity limitation.
- ii. The PTI/TIE results indicate that the identified toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits and the permit issuing authority agrees that the control of such toxicants through numerical limits is the most appropriate course of action.
- iii. The PTI/TIE reveals other unique conditions or characteristics, which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

IRON ADBEL STAYED AND CORRESPONDING EFFECTIVE TERMS AND CONDITIONS

<u>Outfall</u>	<u>Stayed Effluent Limitations</u> <u>Maximum Concentrations</u>	<u>Corresponding Effective Effluent</u> <u>Limitation Maximum Concentrations</u>
	<u>2-Year Average</u>	<u>2-Year Average</u>
Fe, TR, ug/l 00980		
016-A	819	NA
019-A	871	NA
021-A	683	NA
025-A	779	NA
027-A	818	NA
028-A	819	NA
039-A	495	NA
045-A	643	NA
049-A	NA	NA
067-A	944	NA
073-A	778	NA
078-A	758	NA
082-A	996	NA
083-A	826	NA

SAR STAYED AND CORRESPONDING EFFECTIVE TERMS AND CONDITIONS

SAR Stayed and Corresponding Effective Terms and Conditions Associated with Effluent Limitations

Outfall	Stayed Effluent	Corresponding Effective Effluent Limitation
	Semiannual	30-Day Average
SAR 51613		
010-A	78.0	79.1
012-A	76.2	77.1
016-A	78.4	80.3
018-A	73.7	81.3
019-A	67.2	69.2
021-A	75.0	79.6
025-A	71.1	73.4
027-A	75.1	78.5
028-A	84.7	86.6
031-A	73.3	99.2
032-A	71.8	88.4
034-A	74.5	75.9
035-A	63.7	69.2
037-A	59.0	60.2
039-A	66.0	66.3
040-A	88.5	97.1
042-A	88.8	75.4
045-A	53.7	53.8
047-A	65.8	67.9
049-A	62.5	64.6
050-A	71.4	76.8
051-A	75.8	77.6
057-A	59.4	63.3
066-A	57.8	59.5
067-A	59.1	60.4
068-A	65.2	69.5
069-A	70.7	73.9
070-A	61.8	64.0
072-A	56.7	60.0
073-A	85.7	90.3
074-A	56.5	62.7
078-A	61.3	66.3
082-A	55.4	56.1
083-A	53.0	55.5
084-A	70.0	72.9
093-A	47.4	48.7

** The 85th percentile value applies semiannually. Reporting shall be at the LCL concentration. See the definitions section for information on calculating the LCL concentration.

SAR Stayed Terms and Conditions Associated with Soil Benchmark Monitoring and Reporting

Level 1 monitoring: Soil salinity monitoring- Benchmark values for those parameters have been set at a two-fold increase in the actual field values, to prevent soils from a change in soil salinity. These values are set to 2.4 for SAR and 0.6 dS/m for EC, based on the actual sampling data submitted by the facility.

SAR Corresponding Effective Terms and Conditions Associated with Soil Benchmark Monitoring and Reporting

Level 1 monitoring: Soil salinity monitoring- Baseline salinity data and analysis of the irrigated soils shall be determined from preliminary field sampling to establish initial soil pH, EC, and SAR/SARadj. Benchmark values for those parameters shall be set to half of the soil classification values or two-fold increase in the actual field values, whichever is more stringent, provided in the Brady (1990) to prevent soils from a change in soil salinity classification provided by Brady, 1990.

MERCURY STAYED AND CORRESPONDING EFFECTIVE TERMS AND CONDITIONS

Stayed Terms and Conditions Associated with Mercury

Outfalls 010-A, 012-A, 016-A, 018-A, 019-A, 021-A, 025-A, 027-A, 028-A, 031-A, 032-A, 034-A, 035-A, 037-A, 039-A, 040-A, 042-A, 045-A, 047-A, 049-A, 050-A, 051-A, 057-A, 066-A, 067-A, 068-A, 069-A, 070-A, 072-A, 073-A, 074-A, 078-A, 082-A, 083-A, 084-A, 093-A

<u>ICIS Code</u>	<u>Effluent Parameter</u>	<u>Effluent Limitations Maximum Concentrations</u>		<u>Monitoring Requirements</u>	
		<u>30-Day Average</u>	<u>2- Year Average</u>	<u>Frequency</u>	<u>Sample Type</u>
50286	Hg, Tot (µg/l) Low-level	Report	Report	Semi-Annual	Grab

Corresponding Effective Terms and Conditions Associated with Mercury

There are no corresponding effective terms and conditions associated with mercury.