



TPDES PERMIT NO. WQ0004868000
*For TCEQ office use only -
EPA I.D. No. TX0131792]*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

P.O Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES

under provisions of

Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

City of Vernon

whose mailing address is

1725 Wilbarger Street
Vernon, Texas 76384

is authorized to treat and discharge wastes from Vernon Nitrate Treatment Plant, an ion exchange water treatment plant (SIC 4941)

located at 2801 Sullivan Street, approximately one mile east of the intersection of U.S. Highway 70 and U.S. Highway 287 in Wilbarger County, Texas

via pipeline directly to the Pease River in Segment No. 0230 of the Red River Basin

only according to effluent limitations, monitoring requirements and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight on December 1, 2014.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge ion exchange water treatment system waste subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.046 million gallons per day (MGD). The daily maximum flow shall not exceed 0.069 MGD.

Effluent Characteristics	Discharge Limitations		Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency Sample Type
Flow (MGD)	(Report)	(Report)	N/A	1/day Estimate
Chemical Oxygen Demand	Report	Report	N/A	1/month Grab
Nitrate Nitrogen	Report	Report	N/A	1/month Grab
Chloride	N/A	Report	N/A	1/month Grab
Total Dissolved Solids	N/A	Report	N/A	1/month Grab
Sulfate	N/A	Report	N/A	1/month Grab

2. The pH shall not be less than 6.0 standard units or greater than 9.0 standard units and shall be monitored 1/day, by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 001, at the discharge pipeline immediately downstream of the discharge flow meter at the Nitrate Treatment Plant, prior to entering Pease River.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

The "daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (Fecal coliform, E. coli, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements of . made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9 (b).
- b. Grab sample - an individual sample collected in less than 15 minutes.
4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes .
6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be reported on an approved self-report form that is signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TCW Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time, and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 µg/L);
 - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 µg/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Executive Director of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;

- ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy.

- a. Each permittee shall notify the executive director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Land Application Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).

7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

- a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 149) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

- c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
- d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.
- e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

TCEQ Revision 08/2008

OTHER REQUIREMENTS

1. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 3, within 24 hours from the time the permittee becomes aware of the violation followed by a written report within five working days to TCEQ Region 3 and the Enforcement Division (MC 224): None.
2. There shall be no discharge of domestic wastewater. Domestic wastewater shall be routed to the City of Vernon Wastewater Treatment Plant, TPDES Permit No. WQ0010377-001 for treatment and discharge and/or a septic tank/drainfield system.
3. This permit authorizes the discharge of wastewater from the regeneration of resins used for water treatment only. This permit prohibits the discharge of wastewater from the regeneration of resins from wastewater treatment facilities.
4. The mixing zone at Outfall 001 is defined as 300 feet downstream and 100 feet upstream from the point of discharge to Pease River. Chronic toxic criteria apply at the edge of the mixing zone.
5. Attachment 1 (Tables 1) shall be completed with the analytical results for Outfall 001 and sent to the TCEQ, Industrial Permitting Team (MC-148) and the Water Quality Standards Team (MC-150) Wastewater Permitting Section, within 90 days of the facility's initial discharge. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements.

Table 1: Analysis is required for all pollutants. Wastewater shall be sampled and analyzed for those parameters listed in Table 1 for a minimum of four (4) separate sampling events which are a minimum of one (1) week apart.

6. The permittee is hereby placed on notice that this permit may be reviewed by the TCEQ after the completion of any new intensive water quality survey on Segment No 0230 of the Red River Basin and any subsequent updating of the water quality model for Segment No. 0230, in order to determine if the limitations and conditions contained herein are consistent with any such revised model. The permit may be amended, pursuant to 30 TAC Sections 305.62, as a result of such review.

ATTACHMENT 1

Outfall No.:	<input type="checkbox"/> C <input type="checkbox"/> G	Effluent Concentration (mg/l)				
		Samp.	Samp.	Samp.	Samp.	Average
Pollutants						
BOD (5-day)						
CBOD (5-day)						
Chemical Oxygen Demand						
Total Organic Carbon						
Dissolved Oxygen						
Ammonia Nitrogen						
Total Suspended Solids						
Nitrate Nitrogen						
Total Organic Nitrogen						
Total Phosphorus						
Oil and Grease						
Total Residual Chlorine						
Total Dissolved Solids						
Sulfate						
Chloride						
Fluoride						
Fecal Coliform						
Temperature (°F)						
pH (Standard Units; min/max)						

	Effluent Concentration (µg/l)					MAL (µg/l)
Total Aluminum						30
Total Antimony						30
Total Arsenic						10
Total Barium						10
Total Beryllium						5
Total Cadmium						1
Total Chromium						10
Trivalent Chromium						N/A
Hexavalent Chromium						10
Total Copper						10
Cyanide						20
Total Lead						5
Total Mercury						0.2
Total Nickel						10
Total Selenium						10
Total Silver						2.0
Total Thallium						10
Total Zinc						5

STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: City of Vernon; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004868000, (TX0131792).

Regulated Activity: Industrial Wastewater Permit.

Type of Application: New Permit.

Request: New Permit.

Authority: Federal Clean Water Act §402; Texas Water Code §26.027; 30 TAC Chapter 305, Subchapters C-F, Chapters 307 and 319, Commission Policies; and EPA Guidelines.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. It is proposed the permit be issued to expire on December 1, 2014 in accordance with 30 TAC §305.71, Basin Permitting.

REASON FOR PROJECT PROPOSED

The applicant has applied to the TCEQ for a new permit.

PROJECT DESCRIPTION AND LOCATION

The applicant proposes to operate Vernon Nitrate Treatment Plant, an ion exchange wastewater treatment plant (SIC 4941).

The facility removes nitrates from a side stream of water produced for drinking and through blending in on-site ground storage tanks produces a potable water. Wastewater streams from the regeneration nitrate removal resins and softening resins are combined in a wastewater holding tank and discharged via Outfall 001. Domestic wastewater is routed to the City of Vernon Wastewater Treatment Plant, TPDES Permit No. WQ0010377-001 for treatment and discharge.

The plant site is located at 2801 Sullivan Street, approximately one mile east of the intersection of U.S. Highway 70 and U.S. Highway 287 in Wilbarger County, Texas.

The effluent is discharged via pipeline directly to the Pease River in Segment No. 0230 of the Red River Basin. The designated uses for Segment No. 0230 are intermediate aquatic life use and contact recreation. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

In accordance with 30 TAC §307.5 and the TCEQ implementation procedures (January 2003) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters must be performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the Pease River, which has been identified as having intermediate aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

TPDES Permit No: WQ0004868000

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 0230 is not currently listed on the State's inventory of impaired and threatened waters (the 2008 Clean Water Act Section 303(d) list).

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because the wastewater generated from this facility is discharge into the sanitary sewer to the City of Vernon wastewater treatment plant for treatment and discharge.

PROPOSED PERMIT CONDITIONS

The draft permit authorizes a discharge of ion exchange water treatment system waste at a daily average flow not to exceed 0.046 million gallons per day and a daily maximum flow not to exceed 0.069 via Outfall 001.

Final effluent limitations are established in the draft permit as follows:

<u>Outfall Number</u>	<u>Pollutant</u>	<u>Daily Average</u>	<u>Daily Maximum</u>
001	Flow (MGD)	(0.046)	(0.069)
	Chemical Oxygen Demand	Report, mg/L	Report, mg/L
	Nitrate Nitrogen	Report, mg/L	Report, mg/L
	Total Dissolved Solids	N/A	Report, mg/L
	Chloride	N/A	Report, mg/L
	Sulfates	N/A	Report, mg/L
	pH	Between 6.0 and 9.0 standard units.	

Regulations promulgated in Title 40 of the Code of Federal Regulations (40 CFR) require technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, and/or best professional judgment (BPJ) in the absence of guidelines.

The effluent limitations and/or monitoring and reporting for chemical oxygen demand, total dissolved solids, nitrate nitrogen, chloride, sulfates and pH are based on BPJ.

The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge. Chronic toxic criteria apply at the edge of the mixing zone.

Biomonitoring requirements are not included in the draft permit at Outfall 001.

SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004868000

SUMMARY OF CHANGES FROM EXISTING PERMIT

N/A - New Permit

BASIS FOR PROPOSED DRAFT PERMIT

The following items were considered in developing the proposed permit draft:

1. Application submitted with letter dated October 9, 2008.
2. Existing permits: N/A.
3. TCEQ Rules.
4. Texas Surface Water Quality Standards - 30 TAC §§307.1-307.10, effective April 30, 1997, and Appendix E, effective February 27, 2002.
5. "Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003.
6. Memos from the Water Quality Standards Team and the Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
7. "Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits," TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
8. EPA Effluent Guidelines: N/A.
9. Consistency with the Coastal Management Plan: N/A.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application. This notice sets a deadline for public comment.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment, and is not a contested case proceeding. After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004868000

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application contact Monica Vallin-Baez at (512) 239-5784.


Monica Vallin-Baez

February 25, 2009 (Revised April 3, 2009)
Date

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004868000

Appendix A
Calculated Water Quality-Based Effluent Limits

TEXTTOX MENU #3 - PERENNIAL STREAM OR RIVER

The water quality-based effluent limitations demonstrated below are calculated using:

Table 1, 1997 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
Table 3, 2000 Texas Surface Water Quality Standards for Human Health
Procedures to Implement the Texas Surface Water Quality Standards, Texas Commission on Environmental Quality, January 2003.

PERMITTEE INFORMATION

Permittee Name:	City of Vernon
TPDES Permit No.:	WQ0004868000
Outfall No.:	001
Prepared by:	Monica Vallin-Baez
Date	February 25, 2009

DISCHARGE INFORMATION

Immediate Receiving Waterbody:	Pease River
Segment No.:	0230
TSS:	9
pH:	7.4
Hardness:	1148
Chloride:	3580
Effluent Flow for Aquatic Life (MGD):	0.046
Critical Low Flow [7Q2] (cfs):	0.28
Chronic Effluent % for Aquatic Life:	20.27
Acute Effluent % for Aquatic Life:	50.42
Effluent Flow for Human Health (MGD):	0.046
Harmonic Mean Flow (cfs):	0.67
Human Health Effluent %:	9.60
Public Water Supply Use?:	no

CALCULATE TOTAL/DISSOLVED RATIO:

<i>Stream/River Metal</i>	<i>Intercept</i>	<i>Slope (m)</i>	<i>Partitioning Coefficient (K_{po})</i>	<i>Dissolved Fraction (C_d/C_t)</i>		<i>Water Effects Ratio (WER)</i>	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	96250.49	0.54		1.00	Assumed
Cadmium	6.6	-1.13	332434.40	0.25		1.00	Assumed
Chromium (Total)	6.52	-0.93	429096.00	0.21		1.00	Assumed
Chromium (+3)	6.52	-0.93	429096.00	0.21		1.00	Assumed
Chromium (+6)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	205996.83	0.35		1.00	Assumed
Lead	6.45	-0.8	485966.12	0.19		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	139985.09	0.44		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	249534.28	0.31		1.00	Assumed
Zinc	6.1	-0.7	270414.67	0.29		1.00	Assumed

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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TPDES Permit No. WQ0004868000

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS

Parameter	Acute	Chronic	WLAa	WLAc	LTAA	LTAc	Daily Avg.	Daily Max.
	Standard (ug/L)	Standard (ug/L)						
Aldrin	3.000	N/A	5.95	N/A	3.41	N/A	5.01	10.60
Aluminum (d)	991.000	N/A	1965.68	N/A	1126.33	N/A	1655.71	3502.90
Arsenic (d)	360.000	190.000	1332.64	1749.58	763.60	1347.18	1122.49	2374.80
Cadmium (d)	528.602	7.709	4185.51	151.83	2398.30	116.91	171.86	363.60
Carbaryl	2.000	N/A	3.97	N/A	2.27	N/A	3.34	7.07
Chlordane	2.400	0.004	4.76	0.02	2.73	0.02	0.02	0.05
Chlorpyrifos	0.083	0.041	0.16	0.20	0.09	0.16	0.14	0.29
Chromium (+3) (d)	12816.53	1527.658	123598.20	36647.03	70821.77	28218.21	41480.77	87758.64
Chromium (+6) (d)	16.000	11.000	31.74	54.28	18.19	41.79	26.73	56.56
Copper (d)	191.355	102.988	1083.25	1450.27	620.70	1116.70	912.43	1930.38
Cyanide (free)	45.780	10.690	90.81	52.75	52.03	40.61	59.70	126.31
4,4'-DDT	1.100	0.001	2.18	0.00	1.25	0.00	0.01	0.01
Dementon	N/A	0.100	N/A	0.49	N/A	0.38	0.56	1.18
Dicofol	59.300	19.800	117.62	97.70	67.40	75.23	99.08	209.61
Dieldrin	2.500	0.002	4.96	0.01	2.84	0.01	0.01	0.02
Diuron	210.000	70.000	416.54	345.39	238.68	265.95	350.86	742.29
Endosulfan I (alpha)	0.220	0.056	0.44	0.28	0.25	0.21	0.31	0.66
Endosulfan II (beta)	0.220	0.056	0.44	0.28	0.25	0.21	0.31	0.66
Endosulfan sulfate	0.220	0.056	0.44	0.28	0.25	0.21	0.31	0.66
Endrin	0.180	0.002	0.36	0.01	0.20	0.01	0.01	0.03
Guthion	N/A	0.010	N/A	0.05	N/A	0.04	0.06	0.12
Heptachlor	0.520	0.004	1.03	0.02	0.59	0.01	0.02	0.04
Hexachlorocyclohexane (Lindane)	2.000	0.080	3.97	0.39	2.27	0.30	0.45	0.95
Lead (d)	1824.887	71.113	19451.27	1885.53	11145.58	1451.86	2134.23	4515.28
Malathion	N/A	0.010	N/A	0.05	N/A	0.04	0.06	0.12
Mercury	2.400	1.300	4.76	6.41	2.73	4.94	4.01	8.48
Methoxychlor	N/A	0.030	N/A	0.15	N/A	0.11	0.17	0.35
Mirex	N/A	0.001	N/A	0.00	N/A	0.00	0.01	0.01
Nickel (d)	11180.51	1242.930	50116.76	13859.24	28716.90	10671.61	15687.27	33188.71
Parathion (ethyl)	0.065	0.013	0.13	0.06	0.07	0.05	0.07	0.15
Pentachlorophenol	13.558	8.559	26.89	42.23	15.41	32.52	22.65	47.92
Phenanthrene	30.000	30.000	59.51	148.02	34.10	113.98	50.12	106.04
Polychlorinated Biphenyls (PCBs)	2.000	0.014	3.97	0.07	2.27	0.05	0.08	0.17
Selenium	20.000	5.000	39.67	24.67	22.73	19.00	27.92	59.08
Silver, (free ion)	0.920	N/A	65.95	N/A	37.79	N/A	55.55	117.53
Toxaphene	0.7800	0.0002	1.55	0.00	0.89	0.00	0.00	0.00
Tributyltin (TBT)	0.130	0.024	0.26	0.12	0.15	0.09	0.13	0.28
2,4,5 Trichlorophenol	136.000	64.000	269.76	315.78	154.57	243.15	227.22	480.72
Zinc (d)	928.794	838.225	6325.93	14201.59	3624.76	10935.22	5328.40	11273.00

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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TPDES Permit No. WQ0004868000

**HUMAN HEALTH
CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS**

Parameter	Water and	FW Fish	WLAh	LTAh	Daily Avg.	Daily Max.
	FW Fish	Only			(ug/L)	(ug/L)
	(ug/L)	(ug/L)				
Acrylonitrile	1.28	10.9	113.51	105.56	155.18	328.31
Aldrin	0.00408	0.00426	0.04	0.04	0.06	0.13
Arsenic (d)	50	N/A	N/A	N/A	N/A	N/A
Barium (d)	2000	N/A	N/A	N/A	N/A	N/A
Benzene	5	106	1103.86	1026.59	1509.09	3192.70
Benzidine	0.00106	0.00347	0.04	0.03	0.05	0.10
Benzo(a)anthracene	0.099	0.81	8.44	7.84	11.53	24.40
Benzo(a)pyrene	0.099	0.81	8.44	7.84	11.53	24.40
Bis(chloromethyl)ether	0.00462	0.0193	0.20	0.19	0.27	0.58
Cadmium (d)	5	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	3.76	8.4	87.48	81.35	119.59	253.01
Chlordane	0.021	0.0213	0.22	0.21	0.30	0.64
Chlorobenzene	776	1380	14371.03	13365.06	19646.64	41565.34
Chloroform	100	1292	13454.62	12512.80	18393.81	38914.79
Chromiumd	100	3320	34573.79	32153.62	47265.82	99997.76
Chrysene	0.417	8.1	84.35	78.45	115.32	243.97
Cresols	3313	13116	136587.29	127026.2	186728.5	395051.4
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.0103	0.01	0.10	0.10	0.14	0.30
4,4'-DDE	0.0073	0.007	0.07	0.07	0.10	0.21
4,4'-DDT	0.0073	0.007	0.07	0.07	0.10	0.21
2,4'-D	70	N/A	N/A	N/A	N/A	N/A
Danitol	0.709	0.721	7.51	6.98	10.26	21.72
Dibromochloromethane	9.2	71.6	745.63	693.43	1019.35	2156.58
1,2-Dibromoethane	0.014	0.335	3.49	3.24	4.77	10.09
1,3-Dichloropropene (1,3- Dichloropropylene)	22.8	161	1676.62	1559.26	2292.11	4849.29
Dieldrin	0.00171	0.002	0.02	0.02	0.03	0.06
p-Dichlorobenzene	75	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	5	73.9	769.58	715.71	1052.09	2225.85
1,1-Dichloroethylene	1.63	5.84	60.82	56.56	83.14	175.90
Dicofol	0.215	0.217	2.26	2.10	3.09	6.54
Dioxins/Furans (TCDD Equivalents)	1.34E-07	1.40E-07	1.46E-06	1.36E-06	1.99E-06	4.22E-06
Endrin	1.27	1.34	13.95	12.98	19.08	40.36
Fluoride	4000	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0026	0.00265	0.03	0.03	0.04	0.08
Heptachlor Epoxide	0.159	1.1	11.46	10.65	15.66	33.13
Hexachlorobenzene	0.0194	0.0198	0.21	0.19	0.28	0.60
Hexachlorobutadiene	2.99	3.6	37.49	34.87	51.25	108.43
Hexachlorocyclohexane (alpha)	0.163	0.413	4.30	4.00	5.88	12.44
Hexachlorocyclohexane (beta)	0.57	1.45	15.10	14.04	20.64	43.67
Hexachlorocyclohexane (gamma) (Lindane)	0.2	2	20.83	19.37	28.47	60.24
Hexachloroethane	84.2	278	2895.03	2692.38	3957.80	8373.31
Hexachlorophene	0.0531	0.053	0.55	0.51	0.75	1.60
Lead (d)	4.98	25.3	263.47	245.03	360.19	762.03
Mercury	0.0122	0.0122	0.13	0.12	0.17	0.37
Methoxyclor	2.21	2.22	23.12	21.50	31.61	66.87
Methyl Ethyl Ketone	5.29E+04	9.94E+06	1.04E+08	9.63E+07	1.42E+08	2.99E+08
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	37.3	233	2426.41	2256.56	3317.15	7017.92
N-Nitrosodiethylamine	0.0382	7.68	79.98	74.38	109.34	231.32
N-Nitroso-di-n-Butylamine	1.84	13.5	140.59	130.75	192.20	406.62
PCB's (Polychlorinated Biphenyls)	0.0013	0.0013	0.01	0.01	0.02	0.04

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Pentachlorobenzene	6.1	6.68	69.56	64.69	95.10	201.20
Pentachlorophenol	1	135	1405.86	1307.45	1921.95	4066.17
Pyridine	88.1	13333	138847.08	129127.8	189817.8	401587.4
Selenium	50	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.241	0.243	2.53	2.35	3.46	7.32
Tetrachloroethylene	5	323	3363.65	3128.20	4598.45	9728.70
Toxaphene	0.005	0.014	0.15	0.14	0.20	0.42
2,4,5-TP (Silvex)	47	50.3	523.81	487.15	716.11	1515.03
2,4,5-Trichlorophenol	953	1069	11132.34	10353.08	15219.03	32198.08
Trichloroethylene	5	612	6373.24	5927.11	8712.86	18433.32
1,1,1-Trichloroethane	200	12586	131067.98	121893.2	179183.0	379087.9
TTHM (Sum of Total Trihalomethanes)	100	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	2	415	4321.72	4019.20	5908.23	12499.72

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS

<i>Parameter</i>	<i>70%</i>	<i>85%</i>
<i>Aquatic Life</i>		
Aldrin	3.509	4.260
Aluminum	1158.998	1407.354
Arsenic	785.746	954.120
Cadmium	120.303	146.082
Carbaryl	2.339	2.840
Chlordane	0.017	0.020
Chlorpyrifos	0.097	0.118
Chromium (+3)	29036.54	35258.66
Chromium (+6)	18.712	22.722
Copper	638.702	775.567
Cyanide (free)	41.792	50.747
4,4'-DDT	0.004	0.005
Dementon	0.391	0.475
Dicofol	69.353	84.214
Dieldrin	0.007	0.009
Diuron	245.600	298.228
Endosulfan (alpha)	0.219	0.266
Endosulfan (beta)	0.219	0.266
Endosulfan sulfate	0.219	0.266
Endrin	0.009	0.011
Guthion	0.039	0.047
Heptachlor	0.015	0.018
Hexachlorocyclohexane (Lindane)	0.313	0.380
Lead	1493.962	1814.096
Malathion	0.039	0.047
Mercury	2.807	3.408
Methoxychlor	0.117	0.142
Mirex	0.004	0.005
Nickel	10981.09	13334.18
Parathion (ethyl)	0.051	0.062
Pentachlorophenol	15.857	19.255
Phenanthrene	35.086	42.604
Polychlorinated Biphenyls (PCBs)	0.055	0.066
Selenium	19.547	23.736
Silver, (free ion)	38.887	47.220
Toxaphene	0.001	0.001
Tributyltin (TBT)	0.094	0.114
2,4,5 Trichlorophenol	159.055	193.138
Zinc	3729.877	4529.136

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Human Health

Acrylonitrile	108.626	131.903
Aldrin	0.042	0.052
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	1056.363	1282.726
Benzidine	0.035	0.042
Benzo(a)anthracene	8.072	9.802
Benzo(a)pyrene	8.072	9.802
Bis(chloromethyl)ether	0.192	0.234
Cadmium	N/A	N/A
Carbon Tetrachloride	83.712	101.650
Chlordane	0.212	0.258
Chlorobenzene	13752.65	16699.64
Chloroform	12875.67	15634.74
Chromiumd	33086.08	40175.95
Chrysene	80.722	98.020
Cresols	130709.9	158719.2
Cyanide (free)	N/A	N/A
4,4'-DDD	0.100	0.121
4,4'-DDE	0.070	0.085
4,4'-DDT	0.070	0.085
2,4'-D	N/A	N/A
Danitol	7.185	8.725
Dibromochloromethane	713.543	866.445
1,2-Dibromoethane	3.339	4.054
1,3-Dichloropropene (1,3- Dichloropropylene)	1604.475	1948.292
Dieldrin	0.020	0.024
p-Dichlorobenzene	N/A	N/A
1,2-Dichloroethane	736.464	894.278
1,1-Dichloroethylene	58.200	70.671
Dicofol	2.163	2.626
Dioxins/Furans (TCDD Equivalents)	1.40E-06	1.69E-06
Endrin	13.354	16.216
Fluoride	N/A	N/A
Heptachlor	0.026	0.032
Heptachlor Epoxide	10.962	13.311
Hexachlorobenzene	0.197	0.240
Hexachlorobutadiene	35.876	43.564
Hexachlorocyclohexane (alpha)	4.116	4.998
Hexachlorocyclohexane (beta)	14.450	17.547
Hexachlorocyclohexane (gamma) (Lindane)	19.931	24.202
Hexachloroethane	2770.461	3364.131
Hexachlorophene	0.528	0.641
Lead	252.132	306.160
Mercury	0.122	0.148
Methoxychlor	22.124	26.865
Methyl Ethyl Ketone	9.91E+07	1.20E+08
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	2322.005	2819.577
N-Nitrosodiethylamine	76.536	92.937
N-Nitroso-di-n-Butylamine	134.537	163.366
PCB's (Polychlorinated Biphenyls)	0.013	0.016

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Pentachlorobenzene	66.571	80.836
Pentachlorophenol	1345.368	1633.661
Pyridine	132872.5	161345.2
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.422	2.941
Tetrachloroethylene	3218.917	3908.684
Toxaphene	0.140	0.169
2,4,5-TP (Silvex)	501.274	608.690
2,4,5-Trichlorophenol	10653.32	12936.17
Trichloroethylene	6099.000	7405.928
1,1,1-Trichloroethane	125428.1	152305.6
TTHM (Sum of Total Trihalomethanes)	N/A	N/A
Vinyl Chloride	4135.760	5021.994

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APPENDIX B
**TOTAL DISSOLVED SOLIDS, CHLORIDES, AND SULFATE SCREENING AND EFFLUENT
LIMITATION CALCULATIONS**

Intermittent Stream with Perennial Pools (Unclassified)

The following procedures are used to evaluate total dissolved solids, chloride, and sulfate loadings in discharges to intermittent streams with perennial pools. Screening procedures and effluent limitations are calculated using the methodology in the document "Procedures to Implement The Texas Surface Water Quality Standards" (January 2003) and criteria in the Texas Surface Water Quality Standards (30 TAC §307).

TCEQ Implementation Procedures specify, on page 91, the use of two screening procedures for intermittent streams with perennial pools: those for unclassified intermittent streams (total dissolved solids only) and those for unclassified perennial streams or rivers. These screening values are compared, and the more stringent of the two is used to calculate effluent limitations for the discharge.

Effluent Screening

Screening procedures are as follows:

Intermittent Stream (Unclassified)

The following default screening values (C_{SV}) are assumed:

Specific Type of Intermittent Stream	Default C_{SV}
Intermittent streams demonstrated to be dry, except for short term flow in immediate response to rainfall.	$\geq 4,000$ mg/L
Constructed ditches conveying storm water and wastewater, considered water in the state.	$\geq 4,000$ mg/L
Intermittent streams within 3 miles of tidal waters.	$= 6,000$ mg/L

When default screening values are not assumed, the screening value is determined as follows:

$$C_{TDS} = (C_c / 500 \text{ mg/L}) * 2,500 \text{ mg/L}$$

Where:	C_{SV} = TDS screening value
	C_{TDS} = TDS concentration used to determine C_{SV} screening value
	C_c = TDS criterion at the first downstream segment
	C_E = Effluent concentration

The value 500 mg/L is the median concentration of TDS in Texas streams. 2,500 mg/L is the minimum TDS screening value. The C_{SV} is determined by comparing C_{TDS} with the following:

If C_{TDS}	Then C_{SV}
$\leq 2,500$ mg/L	$= 2,500$ mg/L
$> 2,500$ mg/L	$= C_{TDS}$
$> 6,000$ mg/L	$= 6,000$ mg/L

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Total Dissolved Solids		
C _C	=	30000 mg/L
C _E	=	24000 mg/L
C _{TDS}	=	150000 mg/L
C _{SV}	=	6000 mg/L

C_C > C_{SV}, therefore, no effluent limits are necessary.

Unclassified Perennial Streams or Rivers (Unclassified)

The following default screening equation is used:

$$C_{SV} \geq (Q_S C_A + Q_E C_{E1}) / (Q_E + Q_S)$$

Where:

- C_C = Segment Criterion
- Q_S = Harmon mean flow of the first perennial downstream waterbody
- C_A = Ambient concentration
- Q_E = Effluent flow
- C_{E1} = Effluent concentration
- C_{SV} = TDS screening value

Total Dissolved Solids		
C _C	=	30000 mg/L
Q _S	=	0.67 cfs
C _A	=	7530 mg/L
Q _E	=	0.071 cfs
C _{E1}	=	24000 mg/L
Screening Calculation		
C _{SV}	=	9108.097

C_C > C_{SV}; no effluent limitations are necessary.

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Chlorides		
C_C	=	12000 mg/L
Q_S	=	0.67 cfs
C_A	=	3580 mg/L
Q_E	=	0.071 cfs
C_{E1}	=	11000 mg/L
Screening Calculation		
C_{SV}	=	4290.958

$C_c > C_{sv}$; no effluent limits are necessary.

Sulfate		
C_C	=	3500 mg/L
Q_S	=	0.67 cfs
C_A	=	1690 mg/L
Q_E	=	0.071 cfs
C_{E1}	=	10000 mg/L
Screening Calculation		
C_{SV}	=	2486.235

$C_c > C_{sv}$; no effluent limits are necessary.

Sites Outside of Texas

N/A