182171

10/26/2005

I am interested in water and sewer service to my property located near/on <u>CR 404</u> I hope that the City of Lindsay at some point in the future will be able to provide these services to my property. For this reason I would like to be included in the CCN for the Cily of Lindsay.

Sincerely,

là Sandram ī. Signature

Leslie Sandmann

<u>Gainesville, TX 76240</u> City, State, Zip

668-6630 <u>(940)</u> Phone Number

CR 404

# 1 A U.S. Census Bureau Detailed Tables - American FactFinder

# American FactFinder

T1 Population Estimates [9] Data Set: 2006 Population Estimates

Note: For information on errors stemming from model error, sampting arror, and nonsempling error, see: http://www.cansus.gov/popest/topics/mathodokgy.

Lindsey town, Texas		1,003	957	929	878	854	813	792	Jase) 788	20) (00
	Total Population	July 1, 2006	July 1, 2005	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	April 1, 2000 (Estimates E	April 1, 2000 (Census 200

Note: The April 1, 2000 estimates base reflects changes to the Cansus 2000 population resulting from legal boundary updates as of January 1 of the statemates year, other geographic program changes, and Count Question Resolution actions. Jan geographic boundaries for the July 1, 2006 population estimates attenear defined as of January 1, 2006. An '(x)' in fine Cansus 2000 field includates a locality that uses tomated on incorporated after Cansus 2000 or was enroneously omitted from Cansus 2000. See Geographic Change Notes for additional information on these to califies.

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T2. Housing Unit Estimates [9] Data Set: 2006 Population Estimates

NOTE. Estimates for the following geographic area(s) are not available. This table is only available for the United States, States, and Countes. Geography:

Lindsay town, Texas

KDM-8 APP0460 http://factfinder.census.gov/servlet/DTTable?\_bm=y&-context=dt&-ds\_name=PEP\_2006\_EST&-CONTE... 3/7/2008

Page 1 of 1

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Study to Determine the Magnitude of, and Reasons for, Chronically Malfunctioning On-Site Sewage Facility Systems in Texas

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Funded by:

Texas On-Site Wastewater Treatment Research Council

September 2001

Prepared by:

Reed, Stowe & Yanke, LLC 5806 Mesa Drive, Suite 310 Austin, Texas 78731 (512) 450-0991

REED, STOWE & YANKE A Limited Liability Company

September 12, 2001

Mr. Warren Samuelson, Executive Secretary Texas On-Site Wastewater Treatment Research Council C/O Installer Certification Section, MC-178 P.O. Box 13087 Austin, Texas 78711-3087

### RE: Study to Determine the Magnitude of, and Reasons for, Chronically Malfunctioning On-Site Sewage Facility (OSSF) Systems in Texas

Dear Mr. Samuelson:

Reed, Stowe and Yanke, LLC (RS&Y) is pleased to provide the results of the "Study to Determine the Magnitude, and Reasons for, Chronically Malfunctioning On-Site Sewage Facility (OSSF) Systems in Texas" to the Texas On-Site Wastewater Treatment Research Council (Council).

Based on the results of the statewide survey administered for this project, the number of reported chronically malfunctioning OSSFs in the State is approximately 148,573, which represents approximately 13% of the OSSF systems represented by the survey results. These results indicate that there is a potentially serious threat to human health and the environment due to the large number of chronically malfunctioning OSSFs in Texas. As a part of this study, RS&Y evaluated reasons for chronically malfunctioning OSSFs in Texas. Several of the key reasons for malfunction include the following:

- OSSF systems that are older and/or pre-regulatory tend to be problematic and have a higher malfunction rate than newer OSSF systems. The reasons for this high rate of malfunction include, but are not limited to; installation in improper soil types, installation in an undersized lot, system is undersized for current uses, and improper operation and maintenance.
- Since the development of regulations, other types of problems related to OSSFs have emerged. These problems are typically related to the need for on-going maintenance, which is a requirement of many of the newer systems.
- Factors that contribute to malfunctions frequently include a lack of (1) public education programs for OSSF owners, (2) effective enforcement programs, and (3) records about existing OSSF systems.

Developing solutions to the problems presented by malfunctioning OSSFs is a significant challenge facing the State of Texas. Meeting this challenge will require the replacement of many OSSFs in the State and the development and implementation of more effective education, management and enforcement programs by local authorized agents and the TNRCC. Should you have any questions regarding the content of this study, please contact Mr. Scott Pasternak at (512) 450-0991.

Sincerely,

Reed, Stowe: Hake, UC

Reed, Stowe and Yanke, M.C.

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Study to Determine the Magnitude of, and Reasons for, Chronically Malfunctioning OSSFs in Texas

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# **EXECUTIVE SUMMARY**

The State of Texas contains approximately 1.5 million households that rely upon on-site sewage facility (OSSF) systems for wastewater disposal and the numbers are increasing each year. Approximately 55,052 OSSF systems were installed in Texas in 1999, and approximately 49,616 systems were installed in 2000. Unlike households connected to centralized systems, households with OSSF systems are required to have a general understanding of the operation and maintenance needs of the system in order to ensure that it functions properly.

When an OSSF system is not functioning properly, it cannot only become an inconvenience for the homeowner, but it can create threats to public health and the environment. This threat to public health can reach beyond the individual household and extend to the community at large. Recent research completed by the United States Environmental Protection Agency (U.S. EPA) identified a number of public health and environmental problems related to the malfunction of OSSFs.<sup>1</sup> Effluent from malfunctioning OSSF systems can provide a medium for the transmission of disease. For example, the U.S. EPA has estimated that approximately 169,000 viral and 34,000 bacterial illnesses occur each year as the result of drinking contaminated groundwater. Malfunctioning OSSFs have been identified as a potential source of this contamination. Within the context of the natural environment, malfunctioning OSSFs have also been considered a primary reason for reduced harvests in many shellfish growing areas.

#### **Project Overview**

In 2000, the Texas On-Site Wastewater Treatment Research Council (Council) determined that there was a need to study the magnitude of, and reasons for, chronically malfunctioning OSSFs in the State of Texas. Given the large size of Texas and the various soil types and climate conditions within the state, the Council decided to approach the research from a regional perspective. Reed, Stowe & Yanke, LLC (RS&Y) was retained by the Council in October of 2000 to research the issues and factors that contribute to OSSF malfunction, as well as determine the extent of the problem in the various regions of Texas.

After reviewing the existing literature and the available data on OSSF systems, RS&Y determined that the Council's project goals would best be attained through the administration of a survey to the Designated Representatives across Texas. It was decided that Designated Representatives were the appropriate survey population due to their comprehensive knowledge of issues related to OSSF malfunctions within their respective jurisdictions. The survey contained questions that were designed to ascertain the reasons for chronically malfunctioning OSSF systems and covered topics such as

<sup>&</sup>lt;sup>1</sup> EPA Guidelines for Management of Onsite/Decentralized Wastewater Systems (Draft). United States Environmental Protection Agency. September 26, 2000. Pages 1-2.



system design, operation and maintenance, OSSF owner education, effective treatment technologies, soil type, and climate conditions. The survey was mailed to 278 Designated Representatives in January of 2001.









The statewide survey response rate, based on the number of completed surveys returned, was 64%. The survey results were compiled and analyzed on a regional basis and these

regions are presented in Figure ES.1. The analyzed survey results were successful in fulfilling the project goals, and will be an important resource for OSSF professionals and policymakers alike. Important trends in the factors that contribute to OSSF malfunction were revealed through the survey results, as well as data that offers insight into the number of chronically malfunctioning OSSF systems in the State of Texas.

Chart ES.1 shows the percentage of OSSF systems that were reported to malfunction chronically in each region of the State. Statewide, approximately 13% of the OSSF systems were reported to be chronically malfunctioning. Chart ES.2 shows the approximate number of chronically malfunctioning OSSF systems by region. The total number of chronically malfunctioning systems reported through the survey results in the State was approximately 148,573.





The actual total number of malfunctioning OSSF systems in Texas is certain to be higher, as the survey's response rate was less than 100%. However, the rate of OSSF malfunction for the entire State is still unknown and cannot be projected based on survey responses. The project team determined that it would not be statistically valid to use the regional rates of chronic OSSF malfunction for the jurisdictions that responded to the survey, and extrapolate those figures to determine the rate of malfunction for all OSSF systems across the State. Although it might be a useful exercise for the purposes of antidotal discussion, it would not necessarily be representative of the opinions and situations in the remaining jurisdictions.



# **Document Format**

This document is divided into five sections. Section 1 describes the methodology used to determine the type of research instrument used in the project, the process of creating the survey instrument, the survey distribution process, and the limitations of the survey. This section also illustrates the regional approach used to analyze the survey results, including a map that depicts the State of Texas divided into the five regions. A copy of the survey questionnaire is located in Appendix A.

Section 2 presents the regional analyses of the survey results. The survey results are presented from Region I through Region V, with the analyzed data discussed in the order in which it was listed on the actual survey questionnaire. The survey results are described in a text format as well as in various tables that illustrate the raw data results and percentage ratios. Key findings from each region are summarized in the next section, "Key Findings Summary" of the Executive Summary.

Section 3 of this report presents a regional comparison of the survey results from the five regions of the State. This section compares and contrasts the significant factors in OSSF malfunction reported in the survey results from each region. Section 4 discusses in detail the major policy issues and key findings that resulted from the survey analysis presented in Section 2. These policy issues are summarized on page xi of the Executive Summary.

The recommendations of the report are presented in Section 5. In this section, the project team has developed a set of recommendations based on the policy issues discussed in Section 4. The project team would like to emphasize that the recommendations presented in this discussion are not intended to provide a comprehensive resolution to all problems effecting OSSF systems. The purpose of these recommendations is to highlight actions that the Council could take based on the findings of this study. These recommendations have also been developed to help identify and prioritize future Council research projects based on the major reasons for malfunctioning OSSFs.

# Key Findings Summary

#### Region I: Key Findings Summary

- Region I reported that approximately 8% of the OSSF systems in the reporting jurisdictions were chronically malfunctioning.
- The age of the OSSF system was ranked as the highest contributor to malfunction. Pre-regulatory "grandfathered" systems were found to be a severe contributor to malfunction by 51% of survey respondents and a moderate contributor by 29%.
- Operation and maintenance issues were ranked as the second highest contributor to malfunction. Problems with operation and maintenance practices were reported to



severely contribute to OSSF malfunction by 34% of the respondents and to moderately contribute by 34%.

- The lack of education for OSSF owners was reported to contribute severely to OSSF malfunction by 34% of the respondents and moderately contribute by 31%. Additionally, 60% of the respondents in Region I reported that OSSF owners do not receive sufficient information about how to properly operate their system.
- Region I did not report significant OSSF problems due to climate or a high water tables and septic tanks/leaching chambers were reported to function well in the region.

#### Region II: Key Findings Summary

- Region II reported that approximately 12% of the OSSF systems in the reporting jurisdictions were chronically malfunctioning.
- The age of the OSSF system was ranked as the highest contributor to malfunction. Pre-regulatory "grandfathered" systems were found to be a severe contributor to malfunction by 22% of the survey respondents and a moderate contributor by 37%.
- The factors that contribute to OSSF malfunction in Region II were varied and were generally reported as being less severe than in other regions of the State. Areas of concern for many respondents included: a lack of education for OSSF owners, improper operation and maintenance, and problems with soils, such as tightly-packed clay soils that do not allow for proper leaching and fractured limestone soils that allow sewage to flow directly into the ground.

#### **Region III: Key Findings Summary**

- Region III reported that approximately 3% of the OSSF systems in the reporting jurisdictions tend to chronically malfunction. This is the lowest reported rate of OSSF malfunction for any region in the State.
- Region III had an unusually low response rate of 44% and the returned surveys only represent approximately 32% of the total number of OSSF systems in the region. Due to this low regional response rate and the lower OSSF representation, the results from this regional analysis may not be representative of the OSSF issues in the entire region, nor can they be assumed to represent the opinions of the majority of Designated Representatives in the region.
- According to the Designated Representatives that responded to the survey, the age of the OSSF system was ranked as the highest contributor to malfunction. Preregulatory "grandfathered" systems were found to be a severe contributor to malfunction by 50% of the survey respondents and a moderate contributor by 25%.
- Improper system design ranked as the second highest contributor to malfunction and 38% of the respondents reported that it severely contributes to malfunction, while



19% stated it was a moderate contributor. Examples of system design issues reported in the region include OSSF systems that are too small for the sewage load from the facility and lot sizes and/or drainfields that are too small.

#### **Region IV: Key Findings Summary**

- Region IV reported that approximately 12% of the OSSF systems in the reporting jurisdictions were chronically malfunctioning.
- Soils were ranked as the highest contributor to OSSF malfunction in Region IV. Soils were found to severely contribute to malfunction by 42% of the respondents and to moderately contribute by 36%. Specifically, tightly-packed clay soils that do not allow for proper leaching were reported to be severe contributors to malfunction by 51% of the respondents and a moderate contributor by 22%.
- The age of the OSSF system was ranked as the second highest contributor to malfunction. Pre-regulatory "grandfathered" systems were found to be a severe contributor to malfunction by 46% of the survey respondents and a moderate contributor by 32%.
- Lack of education for OSSF owners was reported to contribute severely to malfunction by 28% of the respondents and moderately contribute by 46%. Additionally, 85% of the respondents in Region IV stated that OSSF owners do not receive sufficient information about how to properly operate their system.
- Operation and maintenance was generally reported to be a moderate contributor to malfunction in Region IV. A total of 15% of the respondents reported that operation and maintenance was a severe contributor to malfunction while 51% reported it was a moderate contributor. Specifically, failure to renew maintenance contracts and failure to add the proper disinfectant to the system were identified as the two main contributors to malfunction under the operation and maintenance category.

#### **Region V: Key Findings Summary**

- Region V reported that approximately 19% of the OSSF systems in the reporting jurisdictions were chronically malfunctioning. This is the highest reported rate of malfunction for any region.
- Soil was ranked as the highest contributor to malfunction, with 66% of the respondents reporting severe contribution to malfunction, and 14% reporting moderate contribution. Tightly-packed clay soils were reported to contribute severely to malfunction by 69% of the respondents and moderately by 24%.
- High water tables were ranked as the second highest contributor to malfunction and were reported to severely contribute to malfunction by 34% of the respondents and moderately contribute to malfunction by 31%.



- The age of the OSSF system was ranked as the third highest contributor to malfunction. Pre-regulatory "grandfathered" systems were found to be a severe contributor to malfunction by 55% of the survey respondents and a moderate contributor by 31%.
- Lack of education for OSSF owners was found to severely contribute to malfunction by 34% of the respondents and moderately contribute to malfunction by 45%. Additionally, 79% of respondents in Region V stated that OSSF owners do not receive sufficient information about how to properly operate their system.
- Failure to renew maintenance contracts was reported to be a severe contributor to malfunction by 48% of the respondents and a moderate contributor by 45%. A failure to add the proper disinfectant to the system was reported to be a severe contributor by 38% of the respondents and a moderate contributor by 45%. These factors were the two main contributors to malfunction under the operation and maintenance category.
- One hundred percent of the respondents reported that aerobic system treatment technologies function well and 93% reported that surface irrigation systems function well.

#### **Synopsis of Policy Issues**

Issue 1: Malfunctioning OSSFs are a significant problem in Texas based on the results of the survey. In the State of Texas, there are approximately 148,573 chronically malfunctioning systems, which represents about 13% of all OSSFs.

Issue 2: OSSF systems installed in improper soil classes was the factor that had the highest impact on OSSF system malfunction in Region IV and Region V.

Issue 3: Malfunctions related to system age and "grandfathered" systems was the category that consistently ranked as having the highest impact on the malfunction of OSSF systems in Region I, Region II, and Region III. The age of the OSSF systems was ranked as the second highest factor in Region IV and the third highest factor in Region V. The age of OSSF systems is also affected by several other factors, as many older systems were installed prior to the development of regulations.

Issue 4: System operation and maintenance issues related to surface irrigation/aerobic systems, such as a lack of maintenance contracts and improper addition of disinfectant to the OSSF system, were the key reasons for malfunction in Region IV and Region V.

Issue 5: A need for more education for OSSF system owners is a key issue. Approximately 73% of responding Designated Representatives believe that OSSF owners are not receiving adequate education regarding their systems.



The resource guide should be developed in such a manner that the Designated Representatives can use individual sections independent of information from other sections. The resource guide should also include specific recommendations on steps that could be taken to implement each topic. Additionally, the recommendations should be based upon case studies of other Texas communities that have effectively developed and implemented programs to address various OSSF problems.

# **Recommendation 4: Conduct Further Regional Research**

In order obtain an understanding of the magnitude of, and reasons for, malfunctioning OSSF systems in Region III, which includes the area of South Texas know as the Lower Rio Grande Valley, the project team recommends that the Council fund additional research in this area of the State. This research is needed because the survey response rate for this region was significantly lower than the response rates for the other four regions of the State. This research would ideally build from the research completed through this study.

This future research could be conducted through a combination of case studies, interviews and/or surveys. This additional research could be especially helpful in determining potential infrastructure or other resource needs in this area of the State. Information gathered through the additional research would be valuable and useful for Region III since there are several state and federal programs that can provide financial assistance for water and wastewater infrastructure problems in the border region.

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Study to Determine the Magnitude of, and Reasons for, Chronically Malfunctioning OSSFs in Texas

#### 09/14/2006 17:38 FAX 9406654910

CITY OF LINDSAY

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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 IPDES PERMIT NO. WO0010923001[For TCEQ Office Use Only:EPA ID No. TX0025097]

This is a renewal that replaces TPDES Permit No. 10923-001 issued November 6, 2001.

Town of Lindsay

whose mailing address is

P.O. Box 153 Lindsay, Texas 76250

is authorized to treat and discharge wastes from the Lindsay Wastewater Treatment Facility, SIC Code 4952

located at 100 Sycamore Street, approximately 600 feet east of the Farm-to-Market Road 3108 bridge over Elm Fork Trinity River, southeast of the Town of Lindsay in Cooke County, Texas

to Elm Fork Trinity River Above Lake Ray Roberts in Segment No. 0824 of the Trinity River Basin

only according with 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, September 1, 2010.

ISSUED DATE: II

JUN 23 2006

& The

For the Commission

#### APP0009

**KDM-10** 

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nere shall be no discharge	ıe pH shall not be less the	e total residence time in th disinfection may be subs	spended Solids	nical Oxygen mand (5-day)	GD	<u>Characterístic</u>	daily average flow of eff	ing the period beginning by the period beginning by owing effluent limitations	NT LIMITATIONS AND	indsay
of floating solids or <b>v</b>	m 6.0 standard units n	ie wastewater treatmer tituted only with prior	90 (50)	30 (17)	Report	Daily Avg 7. mg/l(lbs/day)	fluent shall not exceed	upon the date of issuan s:	MONITORING REO	
isible foam	or greater th	ıt system sha approval of	135	45	N/A	i <u>scharge Lir</u> day Avg mg/l	0.066 millio	ce and lastin	UREMENT	
in other than tra	an 9,0 standard	ll be at least 21 d the Executive I	N/A	70	Report	nitations Daily Max mg/i	on gallons p <del>er</del> di	ıg through the di	ζά.	
ce amounts and no dis	units and shall be mon	ays, based on a daily av birector.	N/A	100	N/A	Single Orab mg/l	ay (MGD).	ne of expiration, the p		
scharge of visible oil.	litored once week by grat	verage flow of 0,066 MGI	One/week	One/week	Five/week	<u>Minimum Self-Mon</u> Report Daily Avg. & Measurement Freque		ermittee is authorized to (		:
	o sample.	D. An equivalent method	Grab	Grab	Instantaneous	<u>uitoring Requirements</u> Max. Single Grab ncy Sample Type		discharge subject to the	Outfall Number 001	

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\$ The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

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Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.

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# 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 §§ 5.103 and 5.105, and the Texas Health and Safety Code §§ 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 Section 26.001 of the Texas Water Code 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 1 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.
  - I. Maximum 2-hour peak flow (domestic wastewater treatment plants) the highest 2-hour peak flow for any 24-hour period in a calender 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 calender 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 calender 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.

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- e. Fecal coliform bacteria concentration the number of colonies of fecal coliform bacteria per 100 milliliters effluent. The daily average fecal coliform 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 a equals the number of measurements made: or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made: or, computed as the antilogarithm of ficeal coliform bacteria equaling zero, a substituted value of one shall be nade for input into either computation method. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calender week.
- f. Daily average loading (lbs/day) the arithmetic average of all daily discharge loading calculations during a period of one calender 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).
- g. Daily maximum loading (lbs/day) the highest dally discharge, in terms of mass (lbs/day), within a period of one calender 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 which 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 which 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, the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, 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

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.

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- 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;
    - ly, 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 which may endanger human licalth 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.
  - b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

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- Unauthorized discharges as defined in Permit Condition 2(g). i.
- Any unanticipated hypass which exceeds any effluent limitation in the permit. ii.
- iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% C. 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.
- 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:

- That any activity has occurred or will occur which 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) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

  - One hundred micrograms per liter (100  $\mu$ g/L); Two hundred micrograms per liter (200  $\mu$ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ii. us/L) for 2.4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - Five (5) times the maximum concentration value reported for that pollutant in the permit application; or iii.
  - The level established by the TCEQ. iv.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - Five hundred micrograms per liter (500 µg/L); i.
  - 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. Signatorics 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 which would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants;
  - Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing b. 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:
    - The quality and quantity of effluent introduced into the POTW; and
    - Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. ii.

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#### 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. Fallure 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 which has a reasonable likelihood of adversely affecting human health or the environment.
  - 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 Texas Water Code Section 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 hypass to occur from a TPDES permitted facility which 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 penaltics, as applicable, under Texas Water Code §§7.051 7.075 (relating to Administrative Penalties), 7.101 7.111 (relating to Civil Penaltics), and 7.141 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal Clean Water Act, §§ 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).

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- 3. Inspections and Entry
  - a. Inspection and entry shall be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28, and Texas Health and Safety Code 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 thas 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 reincides authorized in Texas Water Code Section 7.002. The statement above, that Commission cutry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, shall occur in accordance with an establishment's rules and regulations concerning safety 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 which 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 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 error to the expiration date of the permit, the permit shall error authorization to continue such activity after the permit, the permit shall expire and authorization to continue such activity shall terminate.
  - d. Prior to accepting or generating wastes which are not described in the permit application or which 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 Texas Water Code § 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 Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit

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- 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 Section 307(a) of the Clean Water Act 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 which 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 Chapter 11 of the Texas Water Code.

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;
    - an entity (as that term is defined in 11 USC, §101(14)) controlling the permittee or listing the 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 and the permit number(s):
    - ii. the bankruptcy court in which the petition for bankruptcy was filed; and
    - iii. the date of filing of the petition.

#### **OPERATIONAL REQUIREMENTS**

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.

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- 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.
- 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 Texas Water Code § 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 dues not agree with the designation of confidentiality, the person submitting the information will be notified.

- Facilities which 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 percent 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 percent 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 which reaches 75 percent of the permitted daily 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 judgement 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.

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- 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.
- 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 percent, unless otherwise authorized by this permit.
- 11. Facilities which 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.
  - 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 Registration, Review, and Reporting 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:
    - 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 Chapter 361 of the Texas Health and Safety Code.

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#### SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site. or co-disposal landfill. The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of sludge. This provision does not authorize to land apply sludge on property owned, leased or under the direct control of Class A Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.

#### SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

#### A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner which protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the sludge.
- 2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
- The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage shudge disposal practice.

#### **B.** Testing Requirements

 Servage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method, which receives the prior approval of the TCEQ for the contaminants listed in Table 1 of 40 CFR Section 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division and the Regional Director (MC Region 4) within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year.

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 Sewage sludge shall not be applied to the land if the concentration of the pollutants exceed the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section 1.C.

	IABLE I	
Pollutant /	(milligrans per )	ration (ilogram)*
Arsenic	75	
Cadmium	85	
Chromium	3000	
Conper	4300	
Lead	840	
Mercury	57	
Molybdenum	75	
Nickel	420	
PCBs	49	
Scienium	100	
Zinc	7500	

\* Dry weight basis

#### 3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following methods to ensure that the sludge meets either the Class A or Class B pathogen requirements.

a. Six alternatives are available to demonstrate compliance with Class A sewage sludge. The lirst 4 options require either the density of fecal coliform in the sewage sludge be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of <u>Salmonella</u> sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. Below are the <u>additional</u> requirements necessary to meet the definition of a Class A sludge.

<u>Alternative 1</u> - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC Section  $312.82(a)(2)(\Lambda)$  for specific information.

Alternative 2 - The pH of the scwage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

<u>Alternative 3</u> - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grants of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC Section 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grants of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC Section 312.82(a)(2)(C)(iv-vi) for specific information.

<u>Alternative 4</u> - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

<u>Alternative 5</u> (PFRP) - Sewage sludge that is used or disposed of shall be treated in one of the processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

<u>Alternative 6 (PFRP Equivalent)</u> - Sewage sludge that is used or disposed of shall be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

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b. Three alternatives are available to demonstrate compliance with Class B criteria for sewage sludge.

Alternative\_1 -

- A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

<u>Alternative 2</u> - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U. S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and he available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

<u>Alternative 3</u> - Sewage sludge shall be treated in an equivalent process that has been approved by the U. S. Environmental Protection Agency. so long as all of the following requirements are met by the generator of the sewage sludge.

- Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. Prior to any off-site transportation or en-site use or disposal of any scwage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U. S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and he available for inspection by commission staff for review;
- iv. The executive director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

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v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition, the following site restrictions must be met if Class B sludge is land applied:

- i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.
- v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.
- vi. Turf grown on land where scwage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.
- vili. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
- ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC Section 312.44.
- 4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following alternatives I through 10 for Vector Attraction Reduction.

- Alternative 1 The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent.
- <u>Alternative 2</u> If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anacrobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance.
- <u>Alternative 3</u> -If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance.
- <u>Alternative 4</u> The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.
- <u>Alternative 5</u> Sewage sludge shall be treated in an acrobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees Celsius.

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<u>Alternative 6</u> -	The pH of scwage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the scwage sludge is prepared for sale or given away in a bag or other container.
<u>Alternative 7</u> -	The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary vastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
<u>Alternative 8</u> -	The percent solids of sewage sludge that contains unsubilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
Alternative 9 -	i. Sewage sludge shall be injected below the surface of the land.
	the sewage sludge is injected.
	iii. When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
Alternative 10-	<ol> <li>Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.</li> </ol>
	ii. When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

# C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test

- once during the term of this permit

- once during the term of this permit

PCBs

All metal constituents and Fecal coliform or <u>Salmonella</u> sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC Section 312.46(a)(1):

Amo metric	unt of sewage i tons per 365-	sludge (*) day period	Monitoring Frequency
0	to less than	290	Oncc/Year
200	to less than	1,500	Once/Quarter .
1 500	to less than	15,000	Once/Two Months
1.000			Once/Month
15.000	of greater		to the trade of

(\*) The amount of bulk sewage sludge applied to the land (dry weight basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC Section 312.7.

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# SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2. OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

#### A. Pollutant Limits

Pollutant Arsenic Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium Zinc Table 2

Cumulative Pollutant Loading Rate
(pounds per acre)
36
35
2677
1339
268
15
Report Only
375
- 89
2500
•

Table 3

	Monthly Average Concentration
Pollutant	(milligrams per kilogram)*
Arsenic	41
Codminm	39
Chenmins	1200
	1500
Cohbei	300
Lead	17
Mercury	Report Only
Molyboenain	420
NICKEI	36
Zinc	2800

\* Dry weight basis

#### B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A or Class B pathogen reduction requirements as defined above in Section LB.3.

#### C. Management Practices

- Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
- Bulk sewage sludge not meeting Class A requirements shall be land applied in a manner which complies with the Management Requirements in accordance with 30 TAC Section 312.44.
- 3. Bulk sewage shudge shall be applied at or below the agronomic rate of the cover crop.

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4. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:

- a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
- b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instruction on the label or information sheet.
- c. The annual whole sludge application rate for the sewage sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

#### D. Notification Requirements

2.

- 1. If bulk sewage sludge is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:
  - The location, by street address, and specific latitude and longitude, of each land application site.
  - b. The approximate time period bulk sewage sludge will be applied to the site.
  - The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk scwage studge. ċ.
- 2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

# E. Record keeping Requirements

The sludge documents will be retained at the facility site and/or shall be readily available for review by a TCEQ The shadge documents with be relative at the facting bie and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ information of shall be readily available for review by a TCEQ information of shall be readily available for review by a TCEQ information of shall be readily available for review by a TCEQ information of five years. If the permittee supplies the sludge to another person who land applies the sludge, representative for a period of five years. the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC Section 312.47 for persons who land apply.

- 1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
- 2. A description of how the pathogen reduction requirements are met (including site restrictions for Class B sludges, if applicable).
- A description of how the vector attraction reduction requirements are met. 3.
- 4. A description of how the management practices listed above in Section II.C are being met.
- 5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC Section 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC Section 312.83(b) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and

supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penaltics for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section ILC.3. above, as well as the actual agronomic loading rate shall be retained.

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The person who applies bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC Section 312.47 for persons who land apply.

- A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC Section 312.47(a)(4)(A)(ii) or 30 TAC Section 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
- 2. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.
- 3. The number of acres in each site on which bulk sludge is applied.
- The date and time sludge is applied to each site.
- 5. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
- 6. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

# F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 1 of each year the following information:

- Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
- The frequency of monitoring listed in Section I.C. which applies to the permittee.
- 3. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 4. Identity of hauler(s) and TCEQ transporter number.
- 5. PCB concentration in sludge in mg/kg.
- 6. Date(s) of disposal.
- 7. Owner of disposal site(s).
- 8. Texas Commission on Environmental Quality registration number, if applicable.
- 9. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.
- 10. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
- 11. Level of pathogen reduction achieved (Class A or Class B).
- Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B shudge, include information on how site restrictions were met.
- 13. Vector attraction reduction alternative used as listed in Section I.B.4.
- 14. Annual sludge production in dry tons/year.

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- 15. Amount of sludge land applied in dry tons/year.
- 16. The certification statement listed in either 30 TAC Section 312.47(a)(4)(A)(ii) or 30 TAC Section 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge treatment activities, shall be attached to the annual reporting form.
- 17. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
  - a. The location, by street address, and specific latitude and longitude.
  - b. The number of acres in each site on which bulk sewage sludge is applied.
  - c. The date and time bulk sewage sludge is applied to each site.
  - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk scwage sludge applied to each site.
  - e. The amount of sewage shidge (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

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# SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage shudge in accordance with 30 TAC Chapter 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC Chapter 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a Municipal Solid Waste Landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.
- D. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix 11 and 40 CFR Part 268, Appendix 1 (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR Section 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP test). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division and the Regional Director (MC Region 4) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that imauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year.

- E. Sewage sludge shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. Record keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

- 1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
- 2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

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G Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year the following information:

1. Toxicity Characteristic Leaching Procedure (TCLP) results,

- 2. Annual sludge production in dry tons/year.
- 3. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.
- 4. Amount of sludge transported interstate in dry tons/year.
- A certification that the sewage sludge meets the requirements of 30 TAC Chapter 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- 6. Identity of hauler(s) and transporter registration number.
- 7. Owner of disposal site(s).
- 8. Location of disposal site(s).
- 9. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

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#### OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category D facility must be operated by a chief operator or an operator holding a Category D license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift which does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

- 2. The facility is not located in the Coastal Management Program boundary.
- 3. 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. 0824 of the Trinity River Basin and any subsequent updating of the water quality model for Segment No. 0824, 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 Section 305.62, as a result of such review. The permittee is also hereby placed on notice that effluent limits may be made more stringent at renewal based on, for example, any change to modeling protocol approved in the TCEQ Continuing Planning Process.

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#### CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

- 1. The following pollutants may not be introduced into the treatment facility:
  - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius) using the test methods specified in 40 CFR §261.21;
  - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;
  - Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
  - d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
  - e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104 degrees Fahrenheit (40 degrees Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;
  - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through:
  - g. Pollutants which result in the presence of toxic gases, vapors, or filmes within the POTW in a quantity that may cause acute worker health and safety problems; and
  - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
- 2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403.
- 3. The permittee shall provide adequate notification to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division within 30 days subsequent to the permittee's knowledge of either of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works, and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

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