

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 8, 2015

Bridget C. Bohac, Chief Clerk
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: **Application by Nash FM 529, LLC for new TPDES Permit No. WQ0015264001; TCEQ Docket No. 2015-0663-MWD**

Dear Ms. Bohac:

I have enclosed the Executive Director's Response to Hearing Request and Request for Reconsideration in the above-entitled matter. Please let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Ashley McDonald".

Ashley McDonald, Staff Attorney
Environmental Law Division

Enclosure

cc: Mailing List

TCEQ DOCKET NO. 2015-0663-MWD

APPLICATION BY NASH	§	BEFORE THE TEXAS COMMISSION
FM 529, LLC FOR TPDES	§	ON
PERMIT NO. WQ0015264001	§	ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUESTS

I. Introduction

The Executive Director of the Texas Commission on Environmental Quality (the TCEQ or Commission) files this Response to Hearing Requests (Response) on the application of Nash FM 529, LLC for a new Texas Pollutant Discharge Elimination System Permit (TPDES) Permit No. WQ0015264001. The Office of the Chief Clerk (OCC) received hearing requests from Hanelore Domahidi, James W. Riley II, Thomas Shacklett, Christopher Spicer and Brenda Thompson. Hanelore Domahidi and Christopher Spicer also filed requests for reconsideration.

Attached for Commission consideration are the following:

Attachment A—GIS Satellite Map

Attachment B—Compliance History

Attachment C—Technical Summary and Proposed Permit

Attachment D—Executive Director's Response to Public Comment

II. Description of the Facility

Nash FM 529, LLC (Nash) has applied to the TCEQ for a new permit to authorize the discharge of treated domestic wastewater at a daily average flow not to exceed 250,000 gallons per day in the Interim I phase, a daily average flow not to exceed 500,000 gallons per day in the Interim II phase, and an annual average flow not to exceed 1,000,000 in the Final Phase.

The effluent limits in all three proposed phases are 10 mg/l CBOD₅ (carbonaceous biochemical oxygen demand), 15 mg/l TSS (total suspended solids), 2 mg/l NH₃-N (ammonia nitrogen), 63 E. coli CFU or MPN per 100 ml, and 6.0 D.O (dissolved oxygen). The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored daily by grab sample. The permittee shall de-chlorinate the chlorinated effluent to less than 0.1 mg/l chlorine

residual and shall monitor chlorine residual daily by grab sample after the dechlorination process.

The treated effluent will be discharged to a man-made ditch; then to South Mayde Creek; then to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The unclassified receiving water use is minimal aquatic life use for both the man-made ditch and South Mayde Creek. The designated uses for Segment No. 1014 are limited aquatic life use and primary contact recreation.

The Harris County MUD No. 171 Wastewater Treatment Facility will be an activated sludge process plant operated in the extended aeration single-stage nitrification mode. Treatment units in the Interim I phase will include a bar screen, two aeration basins, a final clarifier, two aerobic digesters, and two chlorine contact chambers. In the Interim II phase treatment units will include a bar screen, four aeration basins, two final clarifiers, three aerobic digesters, and three chlorine contact chambers. Treatment units in the Final phase will include a bar screen, eight aeration basins, two clarifiers, five aerobic digester, five chlorine contact basins, and a dechlorination chamber. The facility has not been constructed. The draft permit authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

The proposed wastewater treatment facility will serve the Harris County Municipal Utility District (MUD) No. 171 service area. The plant site will be located approximately 2,000 feet southeast from the intersection of Beckendorff Road and Porter Road in Harris County, Texas 77493.

III. Procedural Background

The permit application was received on May 30, 2014 and declared administratively complete on August 12, 2014. The Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published on August 22, 2014 in the *Houston Chronicle* (English) and on August 24, 2014 in *La Voz* (Spanish). The ED completed the technical review of the Application on October 2, 2014, and prepared a draft permit. The Notice of Application and Preliminary Decision for Water Quality Land Application Permit for Municipal Wastewater Renewal (NAPD) was published on December 26, 2014 in the *Houston Chronicle* (English) and on December 28, 2014 in *La Voz* (Spanish). The public comment period ended on January 27, 2015.

The Executive Director's Response to Public Comment (RTC) was filed on March 19, 2015. The hearing request period and request for reconsideration period ended on April 23, 2015. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant House Bill 801 (76th Legislature, 1999).

IV. Evaluation Process for Hearing Requests

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings. For those applications declared administratively complete on or after September 1, 1999, it established new procedures for providing public notice and public comment, and for the Commission's consideration of hearing requests. The Commission implemented House Bill 801 by adopting procedural rules in 30 Texas Administrative Code (30 TAC) Chapters 39, 50, and 55. The application was declared administratively complete on June 1, 2013; therefore it is subject to the procedural requirement of HB 801.

A. Response to Request

The Executive Director, the Public Interest Counsel, and the Applicant may each submit written responses to a hearing request. 30 TAC § 55.209(d).

Responses to hearing requests must specifically address:

- a) whether the requestor is an affected person;
 - b) whether issues raised in the hearing request are disputed;
 - c) whether the dispute involves questions of fact or of law;
 - d) whether the issues were raised during the public comment period;
 - e) whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment;
 - f) whether the issues are relevant and material to the decision on the application; and
 - g) a maximum expected duration for the contested case hearing.
- 30 TAC § 55.209(e).

B. Hearing Request Requirements

In order for the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements.

A request for a contested case hearing by an affected person must be in writing, must be filed with the chief clerk within the time provided...and may not be based on an issue that was raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment.

30 TAC § 55.201(c).

A hearing request must substantially comply with the following:

- a) give the name, address, daytime telephone number, and, where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and, where possible fax number, who shall be responsible for receiving all official communications and documents for the group;

- b) identify the person’s personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor’s location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a matter not common to members of the general public;
 - c) request a contested case hearing;
 - d) list all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request. To facilitate the commission’s determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the executive director’s response to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy; and
 - e) provide any other information specified in the public notice of application.
- 30 TAC § 55.201(d).

C. “Affected Person” Status

In order to grant a contested case hearing, the Commission must determine that a requestor is an “affected person.” Section 55.203 sets out who may be considered an affected person.

- a) For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest.
- b) Except as provided by 30 TAC § 55.103, government entities, including local governments and public agencies, with authority under state law over issues raised by the application,
- c) In determining whether a person is an affected person, all factors shall be considered, including, but not limited to, the following:
 - 1) whether the interest claimed is one protected by the law under which the application will be considered;
 - 2) distance restrictions or other limitations imposed by law on the affected interest;
 - 3) whether a reasonable relationship exists between the interest claimed and the activity regulated;
 - 4) likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;
 - 5) likely impact of the regulated activity on the use of the impacted natural resource by the person; and
 - 6) for governmental entities, their statutory authority over or interest in the issues relevant to the application.

30 TAC § 50.203.

A group or association may also request a contested case hearing. In order for a group or association to request a contested case hearing, the group or association must show that it meets the following requirements:

- a) one or more members of the group or association would otherwise have standing to request a hearing in their own right;
- b) the interests the group or association seeks to protect are germane to the organization's purpose; and
- c) neither the claim asserted nor the relief requested requires the participation of the individual members in the case.

30 TAC § 55.205(a). In addition the Executive Director, Public Interest Counsel, or the Applicant may request that a group or association provide an explanation of how the group or association meets the above requirements. 30 TAC § 55.205(b).

D. Referral to the State Office of Administrative Hearings (SOAH)

When the Commission grants a request for a contested case hearing, they are required to issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing. 30 TAC § 50.115(b). Subsection 50.115(c) sets out the test for determining whether an issue may be referred to SOAH. "The commission may not refer an issue to SOAH for a contested case hearing unless the commission determines that the issue: 1) involves a disputed question of fact; 2) was raised during the public comment period; and 3) is relevant and material to the decision on the application." 30 TAC § 50.115(c).

V. Analysis of Hearing Requests

A. Analysis of the Hearing Requests

The Executive Director has analyzed the hearing requests to determine whether they comply with Commission rules, who qualifies as affected person, what issues may be referred for a contested hearing, and what is the appropriate length of the hearing.

1. *Whether the Requestors Complied with 30 TAC §55.201.*

The public comment period for this permit application ended on January 27, 2015. The period for timely filing a request for a contested case hearing on this permit application ended on March 21, 2013. Hanelore Domahidi, James W. Riley II and Christopher Spicer all submitted timely hearing requests.¹ The hearing requestors included: their contact information, a physical address, a statement of what he or she believes to be their personal justiciable interest affected by the permit application, and

¹ The date(s) which the requestors filed their respective hearing requests are as follows: Hanelore Domahidi filed a hearing request on October 16, 2014 and a request for reconsideration on April 23, 2015; James W. Riley filed a hearing request on September 08, 2015; Christopher Spicer filed a hearing request on September 05, 2014 and a request for reconsideration on April 22, 2015.

provided a list of disputed facts that were raised during the public comment period. The Executive Director concludes that these hearing requests substantially comply with the requirements of 30 TAC §55.201(c) and (d).

Thomas Shacklett submitted a timely hearing request on September 05, 2014. Mr. Shacklett's hearing request provided his address and phone number, and requested a hearing. However, he did not identify himself as a person with what he believed to be a personal justiciable interest affected by the application. As required by 30 TAC §55.201(d)(4), Mr. Shacklett failed to raise any relevant and material disputed issues of fact that were raised during the comment period. Without any fact issues to base a contested case on, there is no case for the Commission to refer to SOAH under 30 TAC §50.115(c) with respect to this hearing request. The Executive Director concludes that Thomas Shacklett's hearing request does not substantially comply with the requirements of §55.201 (d), and recommends that the Commission deny the hearing request.

Brenda Thompson failed to submit a timely hearing request. The hearing request/request for reconsideration period for this permit application ended on April 23, 2015. Ms. Thompson submitted her hearing request on April 27, 2015. The Executive Director concludes that Brenda Thompson's hearing request does not substantially comply with the requirements of §55.201 (c), and recommends that the Commission deny the hearing request.

The Executive Director recommends that the Commission find that **Hanelore Domahidi, James W. Riley II, and Christopher Spicer's** hearing requests **substantially complied** with the requirements of 30 TAC §55.201 (c) and (d).

2. Whether the Requestors Meet the Affected Persons Requirements

a. Hanelore Domahidi

Ms. Domahidi is listed on the adjacent landowner map, but her property is not located adjacent to the proposed facility or discharge route. However, Ms. Domahidi's property is located approximately within one-half radial from the facility site and discharge route. In her hearing request Ms. Domahidi raises relevant-disputed issues of fact that could impact her and her property; those issues include the impacts of the proposed effluent discharge and contamination of her groundwater well, groundwater contamination and health hazards, impacts to her property, flooding, odor and adverse effects to South Mayde Creek. In consideration of the factors set forth in 30 TAC §55.203(c), given Mr. Domahidi's location relative to the proposed facility and the issues raised she has demonstrated an interest that is not common to members of the general public.

The Executive Director recommends that the Commission find that **Hanelore Domahidi is an affected person.**

b. Christopher Spicer

Mr. Spicer is not listed on the adjacent landowner map. However, according to his hearing request, Mr. Spicer's property is located in Mayde Creek Estates on the 23,000 block of Stockdick School Rd. and Porter Rd., within less than one mile of the proposed project site. The physical address provided by Mr. Spicer indicates that he lives within ¼ of a mile from the facility and his property abuts South Mayde Creek, upstream from the proposed discharge route.

In his hearing request, Mr. Spicer raised issues regarding impacts of the discharge on South Mayde Creek, odor, impacts of the proposed discharge use and enjoyment of his home, and impacts of the effluent discharge on contamination of groundwater wells in the area. In consideration of the factors set forth in 30 TAC §55.203 (c), given Mr. Spicer's location relative to the proposed WWTF and the issues raised he has demonstrated an interest not common to members of the general public.

The Executive Director recommends that that Commission find that Christopher Spicer **is an affected person.**

c. James W. Riley II

Mr. Riley's property is listed on Nash's downstream landowner map, but his property is not located adjacent to the proposed facility or discharge route. In Mr. Riley's hearing request, he states that his property is approximately within 1000 feet of the proposed outfall location. The physical address provided by Mr. Riley indicates that he owns property along the discharge route, and within 1 radial mile of the wastewater treatment facility.

The Executive Director has determined that in consideration of the factors set forth in 30 TAC §55.203 (c), Mr. Riley did not raise any issues that both were relevant to the TCEQ's review of this application and demonstrated how he or his property will be impacted by the facility or its discharge.² In his hearing request, Mr. Riley mainly raised the issue of the discharge causing flooding to South Mayde Creek and the Mayde Creek Estates neighborhood. Flooding issues are outside the jurisdiction of the TCEQ's review of a wastewater application. Mr. Riley's hearing requests did not identify his personal justiciable interest, related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public.³

The Executive Director recommends that the Commission find that James Riley **is not an affected person.**

² 30 Tex. Admin. Code §55.203(c).

³ 30 Tex. Admin. Code §55.203(a).

B. Whether Issues Raised Are Referable to the State Office of Administrative Hearings (SOAH) for a Contested Case Hearing.

In addition to recommending to the Commission those persons who qualify as affected persons, the Executive Director analyzed the issues raised in the hearing requests in accordance with the regulatory criteria. Except where noted, all issues were raised during the public comment period and none of the issues were withdrawn. All identified issues in the response are considered disputed unless otherwise noted.

Issue 1: Whether the draft permit is adequately protective of groundwater and private wells in the area.

This issue is an issue of fact. If it can be shown that the draft permit would adversely affect groundwater and private groundwater wells in the area, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 2: Whether the discharge route has been properly characterized.

This is an issue of fact. However, this issue was not raised during the comment period. According to TCEQ's rules, the Commission can only refer issues to SOAH that were raised during the public comment period. 30 TAC §50.115 (c).

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 3: Whether there are engineering studies that can support the contention that South Mayde Creek can handle the amount of treated effluent discharged from the proposed wastewater treatment plant.

This is an issue of fact. However, it is not relevant and material to a decision on the application, given that the Executive Director requires the applicant for a wastewater permit to submit USGS topographic maps and aerial photographs to determine the impacts on waters in the state. The submission of engineering reports on the receiving stream is not required by the TCEQ.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 4: Whether the draft permit is sufficient to prevent odors that would adversely impact the requestors' properties.

This is an issue of fact. If it can be shown that the draft permit is not sufficient to prevent odors that would adversely impact the requestors' properties, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 5: Whether the draft permit is adequately protective of surface water.

This is an issue of fact. If it can be shown that the proposed permit would adversely affect surface water quality, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 6: Whether the discharge from the Nash facility will interfere with the surrounding property owners' quality of life.

This issue is an issue of fact. However, it is not relevant or material to the Commission's decision on the application. Quality of life issues are not part of the TCEQ's wastewater discharge permit application review process.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 7: Whether wind would push air pollutants into neighboring properties.

This is an issue of fact. However, it is not relevant and material to a decision on the application, given that air pollution or quality is not an issue a wastewater discharge permit issue.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 8: Whether the Nash facility will reduce property values in the surrounding areas.

This is an issue of fact. However, it is not relevant or material to the Commission's decision on the application. TCEQ's review of a wastewater permit application does not consider impacts to surrounding property values. Issues outside of this scope are not relevant to the Commission's decision on an application for a TPDES permit.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 9: Whether the Nash facility would qualify as both a private and public nuisance.

This is a question of law. The TCEQ does not have jurisdiction to address questions of law. TCEQ rules provide that only disputed issues of fact may be referred to SOAH. 30 TAC §50.155 (c).

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 10: Whether the Nash facility will would interfere with the use and enjoyment of private property.

This issue is a question of fact. If it can be shown that the proposed permit would adversely affect the normal use and enjoyment of the requestors' property, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 11: Whether the effluent discharge will be odorous.

This is an issue of fact. This issue was not raised during the public comment period. According to TCEQ's rules the Commission can only refer issues to SOAH that were raised during the public comment period. 30 TAC §50.115 (c).

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 12: Whether there is a need for the proposed wastewater treatment plant and whether the permit complies with the state's regionalization policy.

This is an issue of fact. If it can be shown that issuance of the draft permit would not comply with the state's regionalization policy, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 13: Whether the proposed permit is adequately protective of human health.

This is an issue of fact. If it can be shown that the proposed permit creates harm to human health, this issue is relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 14: Whether the proposed permit will harm animals and livestock that graze on Ms. Domahidi's property.

This issue was not raised during the comment period. According to TCEQ's rules, the Commission can only refer issues to SOAH that were raised during the public comment period. 30 TAC §50.115 (c).

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 15: Whether the proposed facility site is located in a 100-year flood plain.

This is an issue of fact. If it can be shown that the facility is located in a floodway or 100-year flood plain, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 16: Whether impounded discharge when South Mayde Creek is dry will affect quality of life.

This is an issue of fact. However, this issue is not relevant or material to a decision on the application. Quality of life issues are outside the scope of the TCEQ's review of a wastewater permit application, and such issues are not relevant or material to a decision on the application.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 17: Whether the proposed facility and activities will contribute to existing flooding issues and flooding biological concerns.

This is an issue of fact. However, it is not relevant or material to a decision on the application. The TCEQ does not have jurisdiction to consider flooding during its review of a wastewater discharge permit application.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 18: Whether the discharge will be polluted and include sewage, and flood neighboring properties.

This is an issue of fact. However, it is not relevant or material to a decision on the application. Nash has applied for a TPDES which authorizes the discharge of treated effluent into water in the state. The discharge of raw sewage is not authorized by this permit action and would be a violation of its terms and conditions. Additionally, the TCEQ does not have jurisdiction to consider flooding during the review of a wastewater discharge permit application.

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 19: Whether the discharge of treated domestic wastewater will have an environmental impact on the receiving creek.

This is an issue of fact. If it can be shown that the discharge of treated domestic wastewater will have an environmental impact on the receiving, that information would be relevant and material to a decision on the application.

The Executive Director recommends that the Commission refer this issue to SOAH.

Issue 20: Whether the draft permit includes contaminant provisions.

This issue was not raised during the public comment period. According to TCEQ's rules the Commission can only refer issues to SOAH that were raised during the public comment period. 30 TAC §50.115 (c).

The Executive Director recommends that the Commission not refer this issue to SOAH.

Issue 21: Whether the draft permit reflects the cumulative impacts of the proposed discharges from the Nash and Pulte facilities and whether the combined discharges from both facilities will contribute to flooding of South Mayde Creek.

This is an issue of fact. The TCEQ's review of wastewater discharge application only considers the one proposed discharge route and plant site. Based on the information provided in the application, the Executive Director does not anticipate any adverse impact to the receiving stream from the proposed discharge. Additionally, the TCEQ does not have jurisdiction to consider flooding during its review of a wastewater discharge permit application.

The Executive Director recommends that the Commission not refer this issue to SOAH.

VI. Requests for Reconsideration

Hanelore Domahidi and Christopher Spicer each had a hearing request and also filed a request for reconsideration. The Executive Director (ED) will discuss each issue raised in the requests individually.

Issue 1: Christopher Spicer asserts that the size of the receiving water plays a big role in the dilution, potency of toxins, contamination and the effect of soil contamination along with seepage to the water table and surrounding environment. Mr. Spicer questions whether the discharge route has been properly characterized. He has provided photos in support of his argument. These issues were not raised during the comment period.

The size of the receiving waters is considered as part of the Water Quality division Water Quality Assessment (WQA) Section review process. The review process for surface water quality is conducted by the Standards Implementation Team and Water Quality Assessment Team surface water modelers. As described in the draft permit, the treated effluent will be discharged to a man-made ditch; then to South Mayde Creek; then to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The critical conditions review for this permit indicated that the receiving waters (Man-made ditch and South Mayde Creek) are intermittent within three miles of the point of discharge. The critical condition review assumed there would be no regular streamflow available for dilution. Therefore the most restrictive critical conditions apply for this permit, 100% effluent (no dilution) applies for acute conditions at the zone of initial dilution. The Water Quality Division has determined that the draft permit is in accordance with the Texas Surface Water Quality Standards, which ensure that the effluent discharge is protective of aquatic life, human health, and the environment.

There is not expected to be any soil contamination from the proposed treatment plant. The proposed facility does not include any authorization for the land application of sewage on land owned by the permittee; these activities are prohibited by the permit. Nor are there any proposed treatment units that are in-ground or pond units. The Water Quality Division has determined that if the surface water quality is protected, then the groundwater and soil quality in the vicinity will not be impacted by the discharge.

Issue 2: Christopher Spicer asserts that the effects of high temperatures on the effectiveness of the treatment process at the facility. This issue was not raised during the comment period.

Within the range found in a typical wastewater treatment plant activated sludge aeration basin, increased temperature results in increased reaction rates, not decreased. This relationship is reflected in the Chapter 217 Design Criteria sizing for aeration basins. Regarding the gene transfer rate, the facility will be designed to provide disinfection of effluent prior to discharge. The facility is required to monitor chlorine levels five times per week in the Interim I and Interim II phases, and monitor chlorine

levels daily in the Final phase. The chlorine levels are required to be between 1.0 mg/l and 4.0 mg/l after a minimum of twenty minutes of detention time in the chlorination basin (based on peak flow).

The permit includes E. coli bacteria limits which are half the geometric mean for the most stringent contact recreation category as specified in 30 TAC Chapter 307 and as specified in Eighteen Total Maximum Daily Loads (TMDL) for Bacteria in Buffalo and Whiteoak Bayous and Tributaries (TMDL Project No. 22). Regarding increased potential odors during warmer weather, as mentioned in Response No. 5 of the Executive Director's RTC, Nash's permit application indicates that it plans to meet the buffer zone requirements of the proposed permit by a combination of ownership of the required buffer zone area and right of way into Beckendorf Road.

Issue 3: Christopher Spicer states that the excessive storms and period of high precipitation will cause for overflow at the facility and pose a health risk to the surrounding environment. Additionally, Mr. Spicer expressed concern that during period of low precipitation, the treated effluent would be discharged into the dry creek undiluted.

This permit action is for a new facility that will require the construction of a new collection system. New collection systems have much less likelihood of inflow and infiltration problems. For ongoing operation, the facility includes design features to minimize the likelihood of an unauthorized discharge. These include an onsite diesel engine generator to provide standby power to the blower units, clarifier drives, liquid chlorination system, lighting panel, metering, and control equipment. The facility will also include alarm features and an autodialer for a power outage, loss of air supply for aeration basins, and for a clarifier torque overload. Standby equipment will be provided for critical functions such that any required maintenance or repair can be performed without adversely affecting the operation of the facility. Process units are designed with adequate freeboard to allow time for eliminating any blockage or diversion of flow to other units for holding.

As mentioned above, the WQA's Critical Condition review assumed that 100% effluent would apply for critical conditions at the zone of initial dilution. For receiving waters described as intermittent by the WQA Standards Team, dissolved oxygen modeling is done with no headwater (background) flow, which is a conservative representation for DO modeling. Additionally, because the applicant proposed a Final phase of 1.0 MGD they are required within 120 days of plant startup of the Interim I phase to do a Priority Pollutant scan for all required pollutants in TCEQ form 10054 Worksheet 4.0. The required pollutants are based on 30 TAC § 307.6 and the federally mandated list of pollutants to test for found in 40 CFR 122 Appendix J as well as the pesticides list found in 40 CFR 122. Depending upon the results of the priority pollutant analysis, additional monitoring or effluent limits can be included in the permit. When the plant is operating in the Final 1.0 MGD phase whole effluent toxicity testing is

required with 48-hour acute aquatic life toxicity testing and 24-hour acute aquatic life toxicity testing.

The facility is required to report any unauthorized discharge to TCEQ within 24 hours. If the Applicant fails to report the unauthorized discharge or bypass to TCEQ within the prescribed time period, the Applicant is subject to potential enforcement action for failure to comply with TCEQ rules or the permit. At the time of any accidental discharge, TCEQ and other local governmental entities determine if nearby residents need to be notified of any leak or runoff based on the severity and potential health impact of the discharge.

Issue 4: Christopher Spicer asserts that the creek into which the proposed WWTF would discharge effluent floods to its bank with as little as 2-3 inches of rain.

As mentioned in the Executive Director's RTC Response No. 1, the TCEQ does not have jurisdiction to address flooding issues in the wastewater permitting process. The permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes and coastal waters. The draft permit includes effluent limits that must be maintained even during rainfall events and periods of flooding. Regarding the relative flow of the receiving stream compared to the proposed flow of treated effluent, when considering an approximate 2,000 acre drainage area upgradient of the proposed outfall, a 2.74 inch rain will result in approximately 149 million gallons that would eventually flow into the discharge route. A conservative assumption would be that it takes three days following the rainfall to drain the 149 million gallons, and that would equate to 49 million gallons per day. At full capacity, the wastewater treatment plant would increase this amount by 2 percent.

Issue 5: Christopher Spicer expresses concern regarding the likelihood of the concentration of a drug being released in the effluent discharge, including the effects of transitional seasons and the sporadic plug-flow influx of toxicants from various sources. This issue was not raised during the comment period.

Neither the TCEQ nor the U.S. Environmental Protection Agency (EPA) has promulgated rules limiting pharmaceutical and personal care products (PPCPs). The EPA is investigating PPCPs, and has, to date, stated that scientists have not found evidence of adverse human health effects from PPCPs in the environment. Examples of pharmaceuticals are antibiotics and analgesics; and examples of personal care products are cosmetics and fragrances. PPCP removal during municipal wastewater treatment, including processes, has been documented in the scientific studies/literature (for example, Lee, Howe and Thompson, 2009; Oulton, Kohn and Cuiertny, 2012; EPA-820-R-10-002, 2010). However, standard removal efficiencies have not been established for PPCPs nor are there state or federal effluent limits.

Issue 6: Christopher Spicer expresses concern regarding the TCEQ's review of a wastewater permit and whether the property values of surrounding property owners is

considered an economic impact. Additionally, Mr. Spicer argues that the policy of TWC §26.081 should include the economic effects of the wastewater treatment facility on his property values. Hanelore Domahidi asserts that the facility should be moved somewhere else.

This issue was addressed in the Executive Director's RTC, Response No. 2. The Executive Director does not have the jurisdiction to address the location of a wastewater treatment facility and a proposed discharge route might have on the property values of surrounding landowners in reviewing a domestic discharge permit application.

The regionalization policy in Chapter 26.081 of the Texas Water Code supports the intention of reducing the number of wastewater treatment facilities by encouraging the establishment of service areas that would be served by existing or proposed facilities. New entities requesting to build wastewater facilities in an already established service area are required to contact the regional facility to determine if that facility can take the additional load that would be generated by the new proposed entity. The state's policy on regionalization does not take into consideration the economic effects of a wastewater treatment facility on local landowner's property values, but does however, consider the needs of the citizens of the state, prevents pollution, and maintains and enhances the quality of water in the state.

Issue 7: Christopher Spicer and Hanelore Domahidi state that the approval of the proposed wastewater treatment facility and treatment activities (including discharge of effluent) will affect the use and enjoyment of their homes, property and way of living.

As mentioned Executive Director's RTC Response No. 4, the TCEQ does not have jurisdiction to address these types of issues as part of the wastewater permitting process. While the Texas Legislature has given the TCEQ the responsibility to protect water quality in the state, the water quality permitting process is limited to controlling the discharge of pollutants into or adjacent to water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. The TCEQ does not consider issues such as common law nuisance claims when reviewing wastewater applications and preparing draft permits.

The proposed permit does not authorize any invasion of personal rights or any violation of federal, state or local laws. It also does not limit the ability of nearby landowners to use common law remedies for trespass, nuisance, or other causes of action in response to activities that may or actually do result in injury or adverse effects on human health or welfare, animal life, vegetation, or use and enjoyment of property, or that may or actually do interfere with the normal use and enjoyment of animal life, vegetation or property.

Furthermore, 30 TAC §305.122(d) states that the issuance of a permit does not authorize any injury to persons or property, an invasion of other property rights, or any infringement of state or local statutes or regulations. Under sections 305.122 (c) and 305.125 (16) of the same, the issuance of a permit does not convey any property right or exclusive privilege.

Issue 8: Christopher Spicer asserts that the wind rose calculations submitted with the application were out of date and located over 29 miles away from the proposed facility site.

The application for a TPDES permit does not require a site specific wind rose. The wind rose submitted with the application is available data compiled by the US Department of Agriculture Natural Resources Conservation Service. This information is used to understand the predominant wind speed and direction for a particular area of Texas. Wind rose data is limited in availability to stations in the area; therefore, the nearest wind rose calculations submitted with this permit were gathered from Bush Intercontinental Airport. Nash submitted a wind rose as Exhibit 7 to its application that indicates the primary direction of wind in the Houston area blows from the southeast to the northwest. The proposed plant site is north of Mr. Spicer's subdivision, therefore, the wind rose indicates that the prevailing winds at the proposed facility site would predominately travel away from his property.

As discussed in Response 5 of the Executive Director's RTC, the TCEQ's rules require that all domestic wastewater treatment facilities meet buffer zone requirements for the abatement and control of nuisance odor. The applicant has indicated that it will meet the buffer zone requirement in 30 TAC §309.13 (e) by providing the required distance (150 feet) from the each treatment unit nearest to the property line. Nuisance odor is not expected to occur as a result of the permitted activities at the facility if the permittee operates the facility in compliance with TCEQ's rules and the terms and conditions of the draft permit.

Issue 9: Christopher Spicer and Hanelore Domhahidi question whether the proposed facility is accurately determined to be above the 100-year flood plain. Additionally, both requestors questioned whether the treated effluent will have an adverse impact on private water wells and groundwater in the surrounding area.

As discussed in the Executive Director's RTC, Response No. 1, Nash indicated in their permit application that the proposed facilities will be located above the 100-year frequency flood level. In addition, the draft permit contains Other Requirement No. 6 which states, "the permittee shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood." The Applicant has requested authorization to discharge treated wastewater into water of the state. A groundwater review was not conducted because the Executive Director does not anticipate an effect on groundwater from a surface water discharge at this location. Generally, 30 TAC § 305.45(a)(6)(A) requires that applicants submit maps of a sufficient quality, size, and scale capable of sufficiently illustrating wells, springs, other surface water bodies, and water in the state.

During the application process, Nash provided a complete original USGS Topographic Quadrangle map of a sufficient quality, size, and scale that indicates, among other things, public water supply wells within a one-mile radius of the proposed facility location. Additionally, 30 TAC § 309.13 requires that a wastewater treatment

plant unit may not be located closer than 500 feet from a public water well or 250 feet from a private water well. On the map provided by Nash, two water supply wells were identified within one mile of the proposed facility location, but beyond the 500 feet requirement. Additionally, Nash indicated in the application that the proposed facility complies with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13 (a) through (d).

Based on the maps and application submitted, the Nash has indicated that it has complied with applicable rules regarding facility location in relation to public and private wells. By submitting a signed and completed application, the Applicant certified under penalty of law that, to the best of their knowledge and belief, the information submitted is accurate and complete. In the event the applicant or 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 must promptly submit such facts or information. A permit may be modified, suspended, or revoked, in whole or in part, if it is determined that the permit was obtained by misrepresentation or failure to disclose fully all relevant facts.

Issue 10: Hanelore Domahidi argues that the proposed wastewater effluent discharge will adversely impact the public's health and the health of horses that graze in the area. This issue was not raised during the public comment period.

The Water Quality Division has determined that the draft permit complies with the Texas Surface Water Quality Standards (TSWQS). The Commission does not have specific water-quality based effluent limitations for water consumed by livestock or wildlife. However, the TCEQ Water Quality Assessment Team has determined that the proposed permit for the facility meets the requirements of the TSWQS, which are established to protect human health, terrestrial and aquatic life. Aquatic organisms are more sensitive to water quality components than terrestrial organisms. Therefore, wildlife and horses would not be negatively impact by the discharge from the facility if the permittee maintains and operated the facility in accordance with TCEQ rules and the provisions of the proposed permit.

As specified in the TSWQS, water in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock and domestic animals resulting from contact, consumption of aquatic organisms or consumption of water. To ensure that the effluent discharge is protective of aquatic life, human health and environment as proscribed by the TSWQS, the proposed permit requires disinfection of the effluent before discharge. Chlorination of the treated effluent is required to provide adequate disinfection and reduce pathogenic organisms. Nash's proposed permit requires that the effluent must be chlorinated in a chlorine contact chamber to a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention of at least 20 minutes and shall be monitored five times per week by grab sample. The draft permit also contains effluent limits for bacteria, using *E. Coli* as the bacterial indicator organism.

Issue 11: Hanelore Domahidi expresses concern regarding the TCEQ’s consideration of both the Pulte Homes wastewater treatment facility and the proposed Nash facility on South Mayde Creek, specifically mass and flow limits, since the individual permit limits could be exceeded by the combined effluent discharge. Also, Christopher Spicer has expressed concern that the additional discharge from the Nash and Pulte wastewater facilities will contribute to flooding of South Mayde Creek.

As mentioned in the Executive Director’s RTC Responses Nos. 1 and 3, the TCEQ’s review of a wastewater discharge application only considers one proposed discharge route and plant site presented in the application. Based on the information provided in the application, the Executive Director does not anticipate any adverse impact to the receiving stream from the proposed discharge. During the technical review of Nash’s application, staff conducted a dissolved oxygen (DO) modeling analysis to ensure that the DO criteria of the receiving waters are maintained, including South Mayde Creek. The DO modeling analysis included the existing and proposed continuous flow discharges with significant effluent CBOD₅ and ammonia nitrogen concentrations, including the proposed discharges from the Nash FM 529 LLC, Pulte Homes of Texas LP and other facilities. The TCEQ’s Water Quality Division does not compare the impact of discharges from different wastewater treatment facilities in regards to flooding on a receiving stream.

Issue 12: Hanelore Domahidi questions whether the TCEQ needs approval from the landowners to permit the proposed discharge into South Mayde Creek. Christopher Spicer questions whether the TCEQ has the authority to authorize use of the proposed route. This issue was not raised during the public comment period

Nash has applied for authorization to discharge wastewater under the Texas Pollutant Discharge Elimination Systems (TPDES). TPDES permits establish terms and conditions that are intended to provide water quality pollution control as directed by federal law, state law and the Texas Administrative Code. The proposed permit states the following on page 1:

If the permit is issued, it does not grant the permittee the right to use private or public property for conveyance of water along the discharge route. Neither does the permit does not authorize any invasion of personal rights or any violation of federal, state or local laws and regulations. It is the responsibility of the permittee to acquire all property rights necessary to use the discharge route.⁴

⁴ Nash FM 529, LLC Draft Permit, page 1.

The Texas Water Code, Section 5.012 states that the TCEQ is the agency primarily responsible for “implementing the constitution and laws for this state relating to the conservation of natural resources and the protection of the environment.”⁵ The TWC prohibits the discharge of waste or pollution into or adjacent to water in the state without authorization from the Commission.⁶ To implement this policy TCEQ was given the authority to issue TPDES permits for the discharge of waste or pollutant into or adjacent to water in the state.⁷ Water in the state is broadly defined as, “[g]roundwater, percolating water or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, canals...and all other water bodies of surface water...navigable or nonnavigable, and including the bed banks of all watercourses and bodies of surface water...”⁸ Historically, Texas courts have held that water in a watercourse is the property of the State, held in trust for the public.⁹ Accordingly, the TCEQ is authorized to permit the discharge of treated domestic wastewater into water in the state.

The Texas Court of Appeals considered whether the flow of treated effluent from a city’s wastewater treatment facility cause a taking of or damage to downstream landowners’ property in *Domel v City of Georgetown*.¹⁰ In *Domel*, downstream landowners (Ethel and Norman Domel) sued the city of Georgetown, alleging that the value of their property was diminished by the City’s discharge of treated wastewater into an intermittent stream that crossed there land.¹¹ Therefore, the court in *Domel* held that a city discharging treated effluent from a wastewater treatment facility into a watercourse under a permit from a state agency did not need additional permission to discharge from downstream landowners.¹² The question before the court was whether the City of Georgetown needed permission from downstream landowners in order to discharge treated wastewater into a watercourse on privately-owned land pursuant to a state-issued permit.¹³

The court held that “[the State] does not need title to use the bed and banks of a watercourse for their defined purpose of transporting water,” and that “the State has the right to use the channel of a water course to meet its constitutionally mandated duty to conserve and develop the State’s water resources.”¹⁴ Additionally, the court considered the language that is on the first page of every TPDES permit (quoted above) and determined that the City did not need additional authority to use the watercourse for discharging treated domestic wastewater. ¹⁵ Because the State is authorized to use the

⁵ Tex. Water Code §5.012.

⁶ Tex. Water Code §26.121.

⁷ Tex. Water Code §26.027.

⁸ Tex. Water Code §26.001(5).

⁹ *Goldsmith & Powell v. State*, 159 S.W. 2d 534, 535 (Tex. Civ. App.—Dallas 1942).

¹⁰ *Domel v. City of Georgetown*, 6 S.W.3d 349, 358 (Tex. App.-Austin 1999).

¹¹ *Id.* at 350.

¹² *Id.* at 361.

¹³ *Id.* at 350.

¹⁴ *Id.* at 358.

¹⁵ *Domel v. City of Georgetown*, 6 S.W. 3d 349, 361 (Tex. App.-Austin 1999).

bed and banks of a watercourse to transport water and the TCEQ has jurisdiction to authorize the discharge of treated domestic wastewater to water in the state through a TPDES permit, the applicant for a TPDES permit does not need permission from downstream landowners to use the watercourses running through their properties.

Conclusion: After reviewing the requests for reconsideration, the Executive Director did not see any cause for altering the draft permit. Even if the Commission disagrees, requests will become moot if the Commission grants any of the hearing requests. Because the Executive Director recommends granting some of the hearing requests and continues to support the draft permit, the Executive Director recommends denying the requests for reconsideration.

VII. Duration of the Contested Case Hearing

If the Commission determines that this matter should be sent to SOAH for a contested case hearing, the Executive Director recommends a hearing duration of six months from the preliminary hearing to the presentation of a proposal for decision to the Commission

VIII. Executive Director's Recommendation

The Executive Director recommends the following actions by the Commission:

- (1) The Executive Director recommends that the Commission find that Hanelore Domahidi, and Christopher Spicer are affected persons and grant their respective hearing requests.
- (2) The Executive Director recommends the Commission deny the requests for reconsideration.
- (3) If referred to SOAH, first refer the matter to Alternative Dispute Resolution for a reasonable period.
- (4) If referred to SOAH, refer the following issues:

Issue 1: Whether the draft permit is adequately protective of groundwater and private wells in the area.

Issue 4: Whether the draft permit is sufficient to prevent odors that would adversely impact the requestors' properties.

Issue 5: Whether the proposed permit is adequately protective of surface water.

Issue 10: Whether the Nash facility will would interfere with the use and enjoyment of private property.

Issue 12: Whether there is a need for the proposed wastewater treatment plant and whether the permit complies with the state's regionalization policy.

Issue 13: Whether the proposed permit is adequately protective of human health.

Issue 15: Whether the proposed facility site is located in a 100-year flood plain.

Issue 19: Whether the discharge of treated domestic wastewater will have an environmental impact on the receiving creek.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E.
Executive Director

Robert Martinez, Director
Environmental Law Division

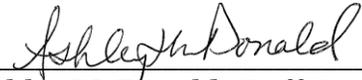


Ashley McDonald, Staff Attorney
Environmental Law Division
State Bar No. 24086775
P.O. Box 13087, MC 173
Austin, TC 78711-3087
(512) 239-1283 phone
(512) 239-0606 fax

REPRESENTING THE EXECUTIVE
DIRECTOR OF THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on June 8, 2015, the original and seven copies of the "Executive Director's Response to Hearing Request" for Nash FM 529, LLC permit No. WQ0015264001 were filed with the TCEQ's Office of the Chief Clerk and a complete copy was served to all persons listed on the attached mailing list via hand delivery, facsimile transmission, inter-agency mail, electronic submittal, or by deposit in the U.S. Mail.



Ashley McDonald, Staff Attorney
Environmental Law Division
State Bar No. 24086775

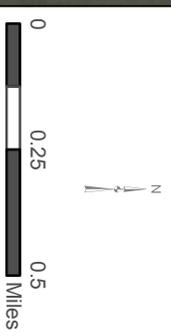
ATTACHMENT A

Nash FM 529, LLC - Harris County MUD No 171 WQ0015264001

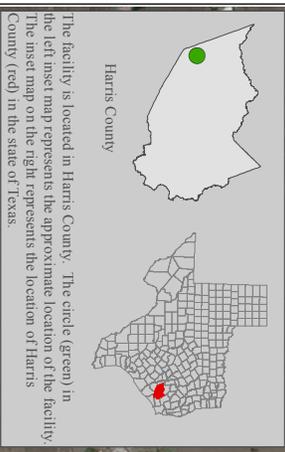
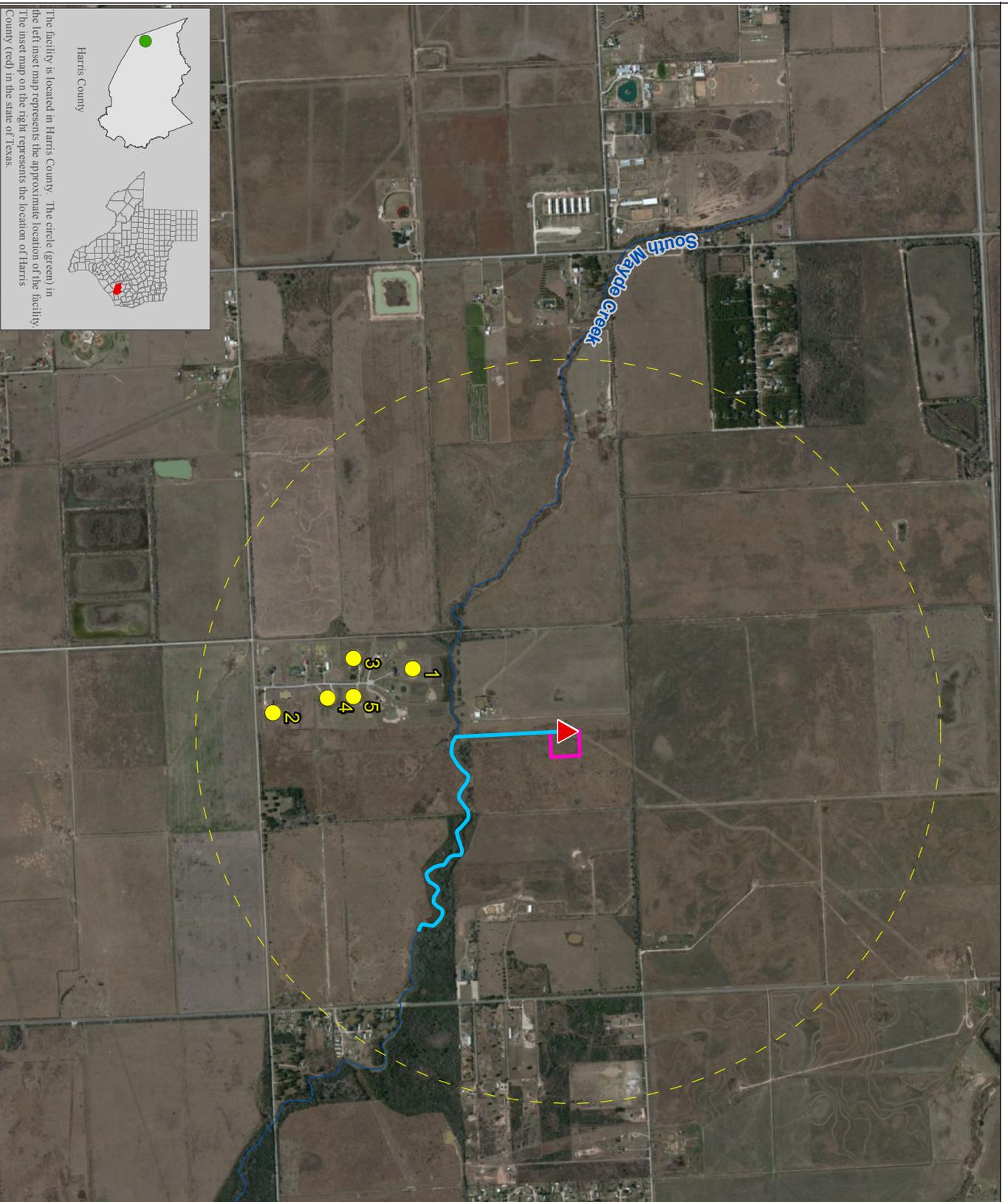
Map Requested by TCEQ Office of Legal Services
for Commissioners' Agenda



Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087
Date: 5/13/2015



- Outfall**
 - 1 mile downstream discharge**
 - WWTP Site Boundary**
 - 1 radial mile from outfall**
 - Requester**
- 1 Christopher Spicer
 - 2 Hanelore Domahidi
 - 3 Thomas Shacklett
 - 4 James W. Riley
 - 5 Brenda C. Thompson



Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information from the applicant and the requestor information from the requestor. The background imagery of this map is from the current Environmental Systems Research Institute (ESRI) map service, as of the date of this map.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 259-0800.

ATTACHMENT B

The TCEQ is committed to accessibility.
To request a more accessible version of this report, please contact the TCEQ Help Desk at (512) 239-4357.



Compliance History Report

PENDING Compliance History Report for CN604588350, RN107309437, Rating Year 2014 which includes Compliance History (CH) components from September 1, 2009, through August 31, 2014.

Customer, Respondent, or Owner/Operator:	CN604588350, NASH FM 529, LLC	Classification:	UNCLASSIFIED	Rating:	-----
Regulated Entity:	RN107309437, NASH FM 529 WWTP	Classification:	UNCLASSIFIED	Rating:	-----
Complexity Points:	4	Repeat Violator:	NO		
CH Group:	14 - Other				
Location:	LOCATED APPROX 2000 FT SE FROM THE INTERSECTION OF BECKENDORFF RD AND PORTER RD HARRIS, TX, HARRIS COUNTY				
TCEQ Region:	REGION 12 - HOUSTON				
ID Number(s):					
WASTEWATER PERMIT	WQ0015264001	WASTEWATER EPA ID	TX0135461		
Compliance History Period:	September 01, 2009 to August 31, 2014	Rating Year:	2014	Rating Date:	09/01/2014
Date Compliance History Report Prepared:	September 16, 2014				
Agency Decision Requiring Compliance History:	Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.				
Component Period Selected:	May 30, 2009 to September 16, 2014				
TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.					
Name:	Larry Diamond	Phone:	(512) 239-0037		

Site and Owner/Operator History:

- 1) Has the site been in existence and/or operation for the full five year compliance period? NO
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO
- 3) If YES for #2, who is the current owner/operator? N/A
- 4) If YES for #2, who was/were the prior owner(s)/operator(s)? N/A
- 5) If YES, when did the change(s) in owner or operator occur? N/A

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

N/A

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

N/A

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A

ATTACHMENT C

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Zak Covar, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Mr. Alan F. Bauer, Vice President
Nash FM 529, LLC
10235 West Little York, Suite 300
Houston, Texas 77040

Re: Nash FM 529, LLC, TPDES Permit No. WQ0015264001
(CN604588350; RN107309437)

Dear Mr. Bauer:

Enclosed is a copy of the above referenced water quality permit issued on behalf of the Executive Director pursuant to Chapter 26 of the Texas Water Code.

Self-reporting or Discharge Monitoring Forms and instructions will be forwarded to you from the Water Quality Management Information Systems Team so that you may comply with monitoring requirements. For existing facilities, revised forms will be forwarded if monitoring requirements have changed.

Enclosed is a "Notification of Completion of Wastewater Treatment Facilities" form. Use this form (if needed) when the facility begins to operate or goes into a new phase. The form notifies the agency when the proposed facility is completed or when it is placed in operation. This notification complies with the special provision incorporated into the permit, as applicable.

Should you have any questions, please contact Mr. Larry Diamond of the Texas Commission on Environmental Quality's (TCEQ) Wastewater Permitting Section at (512) 239-4671 or if by correspondence, include MC 148 in the letterhead address below.

Sincerely,

David W. Galindo, Director
Water Quality Division

DWG/LD/ml

ccs: TCEQ, Region 12
Ms. Jennifer Mays, P.E., Brown & Gay Engineers, Inc., 10777 Westheimer Road,
Suite 400, Houston, Texas 77042



TPDES PERMIT NO. WQ0015264001
[For TCEQ office use only - EPA I.D.
No. TX0135461]

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

Nash FM 529, LLC

whose mailing address is

10235 West Little York Road, Suite 300
Houston, Texas 77040

is authorized to treat and discharge wastes from the Harris County Municipal Utility District No. 171 Wastewater Treatment Facility, SIC Code 4952

located approximately 2,000 feet southeast from the intersection of Beckendorff Road and Porter Road in Harris County, Texas 77493

to a man-made ditch; thence to South Mayde Creek; thence to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin

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

This permit shall expire at midnight, **May 1, 2017**.

ISSUED DATE:

For the Commission

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the completion of the expansion to the 0.50 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.25 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 694 gallons per minute (gpm).

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Min. Self-Monitoring Requirements</u>	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (21)	15	25	One/week	Grab
Total Suspended Solids	15 (31)	25	40	One/week	Grab
Ammonia Nitrogen	2 (4.2)	5	10	One/week	Grab
<i>E. coli</i> , CFU or MPN/100 ml	63	N/A	N/A	One/month	Grab

- The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored five times per week by grab sample at each chlorination chamber. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
- There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored once per week by grab sample.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of the expansion to the 0.5 million gallons per day (MGD) facility and lasting through the completion of expansion to the 1.0 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:
The annual average flow of effluent shall not exceed 0.5 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 1,389 gallons per minute (gpm).

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Min. Self-Monitoring Requirements</u>		
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (42)	15	25	35	One/week	Composite
Total Suspended Solids	15 (63)	25	40	60	One/week	Composite
Ammonia Nitrogen	2 (8.3)	5	10	15	One/week	Composite
<i>E. coli</i> , CFU or MPN/100 ml	63	N/A	200	N/A	One/month	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorination chamber. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored once per week by grab sample.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of the expansion to the 1.0 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 1.0 MGD; nor shall the average discharge during any two-hour period (2-hour peak) exceed 2,778 gallons per minute (gpm).

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Min. Self-Monitoring Requirements</u>		
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (83)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (125)	25	40	60	Two/week	Composite
Ammonia Nitrogen	2 (17)	5	10	15	Two/week	Composite
<i>E. coli</i> , CFU or MPN/100 ml	63	N/A	200	N/A	Two/month	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample at each chlorination chamber. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l chlorine residual and shall monitor chlorine residual daily by grab sample after the dechlorination process. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.

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

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

6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored twice per week by grab sample.

7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

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

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

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

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

- e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
 - f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
 - g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.
3. Sample Type
- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

- b. Grab sample - an individual sample collected in less than 15 minutes.
4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge 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 (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

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

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period

of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

7. Noncompliance Notification

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

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

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

- a. That any activity has occurred or will occur 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":

- i. One hundred micrograms per liter (100 µg/L);
 - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur 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":
 - i. Five hundred micrograms per liter (500 µg/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.

10. Signatories to Reports

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

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

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility 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 penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

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

4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

- ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
 - c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
 - d. Prior to accepting or generating wastes 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 TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
 - f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant 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 shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
5. Permit Transfer
- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee 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

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

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not

confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

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

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 169) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and

related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Environmental Cleanup 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 § 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;

- iii. Date(s) of disposal;
- iv. Identity of hauler or transporter;
- v. Location of disposal site; and
- vi. Method of final disposal.

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

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

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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 land application 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 § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that 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.
3. 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.

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in the Interim I and Interim II phase; annually in the Final phase 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 that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. 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 Permitting and Remediation Support Division and the Regional Director (MC Region 12) within seven (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 12) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

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

TABLE 1

<u>Pollutant</u>	<u>Ceiling Concentration</u> <u>(Milligrams per kilogram)*</u>
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	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 first 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 *Salmonella* 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 additional requirements necessary to meet the definition of a Class A sludge.

Alternative 1 - 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 § 312.82(a)(2)(A) for specific information.

Alternative 2 - The pH of the sewage 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° 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%.

Alternative 3 - 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 grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 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 grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information.

Alternative 4 - 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.

Alternative 5 (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.

Alternative 6 (PFRP Equivalent) - 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.

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

Alternative 1

- i. 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.
- ii. 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).

Alternative 2 - 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.

- i. 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 be 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.

Alternative 3 - 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.

- i. 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 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;
- 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 be 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

- 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 sewage 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.
 - viii. 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 § 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 1 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%.

- Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.
- Alternative 3 - 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 percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.
- Alternative 4 - 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° Celsius.
- Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.
- Alternative 6 - The pH of sewage 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 sewage sludge is prepared for sale or given away in a bag or other container.
- Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% 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.
- Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% 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.
 - ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after 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-
- i. 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.
 - 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 in the Interim I and Interim II phase; annually in the Final phase
PCBs	- once during the term of this permit in the Interim I and Interim II phase; annually in the Final phase

All metal constituents and fecal coliform or Salmonella sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

<u>Amount of sewage sludge (*) metric tons per 365-day period</u>	<u>Monitoring Frequency</u>
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

() 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 § 312.7

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

Table 2

<u>Pollutant</u>	<u>Cumulative Pollutant Loading Rate (pounds per acre)*</u>
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

<u>Pollutant</u>	<u>Monthly Average Concentration (milligrams per kilogram)*</u>
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	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 I.B.3.

C. Management Practices

1. 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.
2. 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 § 312.44.
3. Bulk sewage sludge shall be applied at or below the agronomic rate of the cover crop.
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

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:
 - a. 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.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.
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 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 representative for a

period of five years. 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 § 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 sludge, if applicable).
3. A description of how the vector attraction reduction requirements are met.
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 § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 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 penalties for false certification including fine and imprisonment.”

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. 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 § 312.47 for persons who land apply:
 - a. 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 § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
 - b. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.
 - c. The number of acres in each site on which bulk sludge is applied.
 - d. The date and time sludge is applied to each site.
 - e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
 - f. 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 12) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30 of each year the following information:

1. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
2. The frequency of monitoring listed in Section I.C. that 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).
12. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, 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.
15. Amount of sludge land applied in dry tons/year.
16. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 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 sewage sludge applied to each site.
- e. The amount of sewage sludge (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.

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

- A. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 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 § 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 the Interim I and Interim II phase; annually in the Final phase 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) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 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 Permitting and Remediation Support Division and the Regional Director (MC Region 12) of the appropriate TCEQ field office 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 12) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 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.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 12) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 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.
5. A certification that the sewage sludge meets the requirements of 30 TAC § 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.

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 C in the Interim I and Interim II phases and category B facility in the Final phase facility must be operated by a chief operator or an operator holding a Category C in the Interim I and Interim II phases and must be operated by a chief operator or an operator holding a Category C the Final phase 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 that 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. There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.
4. 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. 1014 of the San Jacinto River Basin and any subsequent updating of the water quality model for Segment No. 1014, 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 §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.
5. The permittee shall comply with the requirements of 30 TAC § 309.13 (a) through (d). In addition, by ownership of the required buffer zone area, and right of way into Beckendorf Road the permittee shall comply with the requirements of 30 TAC § 309.13(e). (See Attachment A).
6. The permittee shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.
7. In accordance with 30 TAC §319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 1/month may be reduced to 1/quarter in the Interim I and Interim II phases, and

2/month may be reduced to 1/month in the Final phase. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).**

The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

8. Within 120 days from the start-up of the facility, the permittee shall complete Attachment B with the analytical results for Outfall 001. The completed tables with the results of these analysis and laboratory reports shall be submitted to the Municipal Permits Team, Wastewater Permitting Section MC 148, TCEQ Water Quality Division. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements. Test methods utilized to complete the tables shall be according to the test procedures specified in the Definitions and Standard Permit Conditions section of this permit and sensitive enough to detect the parameters listed in Attachment B at the minimum analytical level (MAL).
9. Prior to construction of the Interim I, Interim II, and Final phase treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary submittal letter in accordance with the requirements in 30 TAC Section 217.6(c). If requested by the Wastewater Permitting Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the permitted effluent limitations required on Page 2, 2a, and 2b of this permit.
10. Reporting requirements according to 30 TAC Sections 319.1-319.11 and any additional effluent reporting requirements contained in this permit are suspended from the effective date of the permit until plant startup or discharge from the facility described by this permit, whichever occurs first. The permittee shall provide written notice to the TCEQ Regional Office (MC Region 12) and the Applications Review and Processing Team (MC 148) of the Water Quality Division as well as Harris County Pollution Control Services, at least forty-five (45) days prior to plant startup or anticipated discharge, whichever occurs first and prior to completion of each additional phase on Notification of Completion Form 20007.

48-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing only during the Final phase of this permit.

1. Scope, Frequency and Methodology

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival of the test organisms.
- b. Within 60 days of initial discharge from the 1.0 MGD facility, the permittee shall conduct the following toxicity tests utilizing the test organisms, procedures and quality assurance requirements specified in this Part of the permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition" (EPA-821-R-02-013), or its most recent update:
 - 1) Acute static renewal 48-hour definitive toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
 - 2) Acute static renewal 48-hour definitive toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and submit a valid test for each test species during the required reporting period for that species. A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution. A repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. An invalid test is herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These additional effluent concentrations are 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a Chemical-Specific (CS) limit, a Best Management Practice (BMP), or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

- e. **Testing Frequency Reduction**
 - 1) If none of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.
 - 2) If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee shall continue quarterly testing for that species until the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant lethal effects, the permittee will resume a quarterly testing frequency for that species until the permit is reissued.

2. **Required Toxicity Testing Conditions**

- a. **Test Acceptance** - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:
 - 1) a control mean survival of 90% or greater; and
 - 2) a Coefficient of Variation percent (CV%) of 40 or less for both the control and critical dilution. However, if significant lethality is demonstrated, a CV% greater than 40 shall not invalidate the test. The CV% requirement does not apply when significant lethality occurs.
- b. **Statistical Interpretation**
 - 1) For the water flea and fathead minnow tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced above, or its most recent update.
 - 2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The EPA manual, "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004), provides guidance on determining the validity of test results.
 - 3) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 90% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

- 4) The NOEC is defined as the greatest effluent dilution at which no significant lethality is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which significant lethality is demonstrated. Significant lethality is herein defined as a statistically significant difference the survival of the test organism(s) in a specified effluent dilution compared to the survival of the test organism(s) in the control (0% effluent).
- 5) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 2 above.
- 6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The above-referenced guidance manual will be used when making a determination of test acceptability.
- 7) Staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- 1) Dilution water used in the toxicity tests shall be the receiving water collected at a point upstream of the discharge as close as possible to the discharge point, but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
 - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or
 - b) utilize the closest downstream perennial water unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of preexisting instream toxicity (i.e. fails to fulfill the test acceptance criteria of item 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of item 2.a;

- b) the test indicating receiving water toxicity was carried out to completion; and
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3 of this Section.
- 3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.
- d. Samples and Composites
- 1) The permittee shall collect a minimum of two composite samples from Outfall 001. The second composite sample will be used for the renewal of the dilution concentrations for each toxicity test.
 - 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for the subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum numbers of effluent portions, and the sample holding time, are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.
 - 5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in any Part of this Section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced above, or its most recent update, for every valid and invalid toxicity test initiated whether carried to completion or not.

- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
- 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12 month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6 month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th, for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
- 1) For the water flea, Parameter TEM3D, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter TOM3D, report the NOEC for survival.
 - 3) For the water flea, Parameter TXM3D, report the LOEC for survival.
 - 4) For the fathead minnow, Parameter TEM6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 5) For the fathead minnow, Parameter TOM6C, report the NOEC for survival.
 - 6) For the fathead minnow, Parameter TXM6C, report the LOEC for survival.
- d. Enter the following codes for retests only:
- 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
4. Persistent Toxicity

The requirements of this Part apply only when a toxicity test demonstrates significant lethality. Significant lethality is defined as a statistically significant difference between the survival of the test organisms at the critical dilution when compared to the survival of the test organisms in the control.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates significant lethality. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.
- c. The provisions of item 4.a. are suspended upon completion of the two retests and submittal of the TRE Action Plan and Schedule defined in Part 5 of this Section.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a General Outline for initiating a Toxicity Reduction Evaluation (TRE). The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE Action Plan shall describe an approach for the reduction or elimination of lethality for both test species defined in item 1.b. As a minimum, the TRE Action Plan shall include the following:
 - 1) Specific Activities - The TRE Action Plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled, "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003), or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE Action Plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/ identification/ confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant(s) and source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and source(s) of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE Action Plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, as well as mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE Action Plan and Schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE Activities Reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical specific analyses for the identified and suspected pollutant(s) performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the pollutant(s) and source(s) of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
 - 6) any changes to the initial TRE Plan and Schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species; testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality (herein as defined below) the permittee may end the TRE. A "cessation of lethality" is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b. The permittee may only apply the "cessation of lethality" provision once.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. "Corrective actions" are herein defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a Final Report on the TRE Activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE. The report shall provide information pertaining to the specific control mechanism(s) selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism(s). A copy of the TRE Final Report shall also be submitted to the U.S. EPA Region 6 office.
- h. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and to specify CS limits.

TABLE 1 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

Dates and Times Composites Collected No. 1 FROM: _____ Date _____ Time _____ TO: _____ Date _____ Time _____
 No. 2 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date
 Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	32%	42%	56%	75%	100%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

*Coefficient of Variation = Standard Deviation x 100/mean

Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (100%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

- 1) NOEC survival = _____ % effluent
- 2) LOEC survival = _____ % effluent

TABLE 1 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

Dates and Times Composites Collected No. 1 FROM: _____ Date Time TO: _____ Date Time
 No. 2 FROM: _____ Date Time TO: _____ Date Time

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	32%	42%	56%	75%	100%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

* Coefficient of Variation = standard deviation x 100/mean

Dunnnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (100%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

1) NOEC survival = _____ % effluent

2) LOEC survival = _____ % effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for WET testing only during the Final phase of this permit.

1. Scope, Frequency and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this Section. Such testing will determine compliance with the Surface Water Quality Standard, 30 TAC § 307.6(e)(2)(B), of greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests utilizing the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition" (EPA-821-R-02-012), or its most recent update:
 - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution.
 - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit. All test results, valid or invalid, must be submitted as described below.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a BMP, CS limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.
- e. As the dilution series specified in the 48-Hour Acute Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.

2. Required Toxicity Testing Conditions

- a. Test Acceptance – The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water - In accordance with item 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.
 - 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report required in Part 3 of this Section.
 - 5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in any Part of this Section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced above, or its most recent update, for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before January 20th and July 20th for biomonitoring conducted during the previous 6 month period.
 - 2) Quarterly biomonitoring test results are due on or before January 20th, April 20th, July 20th, and October 20th, for biomonitoring conducted during the previous calendar quarter.

- c. Enter the following codes for the appropriate parameters for valid tests only:
- 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
- d. Enter the following codes for retests only:
- 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

4. Persistent Mortality

The requirements of this Part apply when a toxicity test demonstrates significant lethality, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 24-hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These additional effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a General Outline for initiating a Toxicity Reduction Evaluation (TRE). The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE Action Plan shall lead to the successful elimination of significant lethality for both test species defined in item 1.b. As a minimum, the TRE Action Plan shall include the following:
- 1) Specific Activities - The TRE Action Plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled, "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003), or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan - The TRE Action Plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/ identification/ confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant(s) and source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and source(s) of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE Action Plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, as well as mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE Action Plan should describe the project staff, manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE Action Plan and Schedule, the permittee shall implement the TRE.

- d. The permittee shall submit quarterly TRE Activities Reports concerning the progress of the TRE. The quarterly TRE Activities Reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant(s) performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation that identifies the pollutant(s) and source(s) of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
 - 6) any changes to the initial TRE Plan and Schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species; testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality (herein as defined below) the permittee may end the TRE. A "cessation of lethality" is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b. The permittee may only apply the "cessation of lethality" provision once.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. "Corrective actions" are herein defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a Final Report on the TRE Activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE. The report shall specify the control mechanism(s) that will, when implemented, reduce effluent toxicity as specified in item 5.g. The report will also specify a corrective action schedule for implementing the selected control mechanism(s). A copy of the TRE Final Report shall also be submitted to the U.S. EPA Region 6 office.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE.

The requirement to comply with 30 TAC § 307.6(e)(2)(B) may be exempted upon proof that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g. metals) form a salt compound. Following the exemption, the permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and to specify a CS limit.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN*						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)
 FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

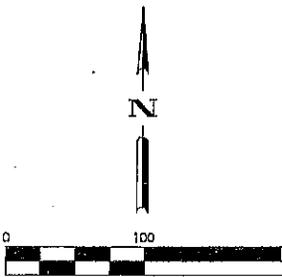
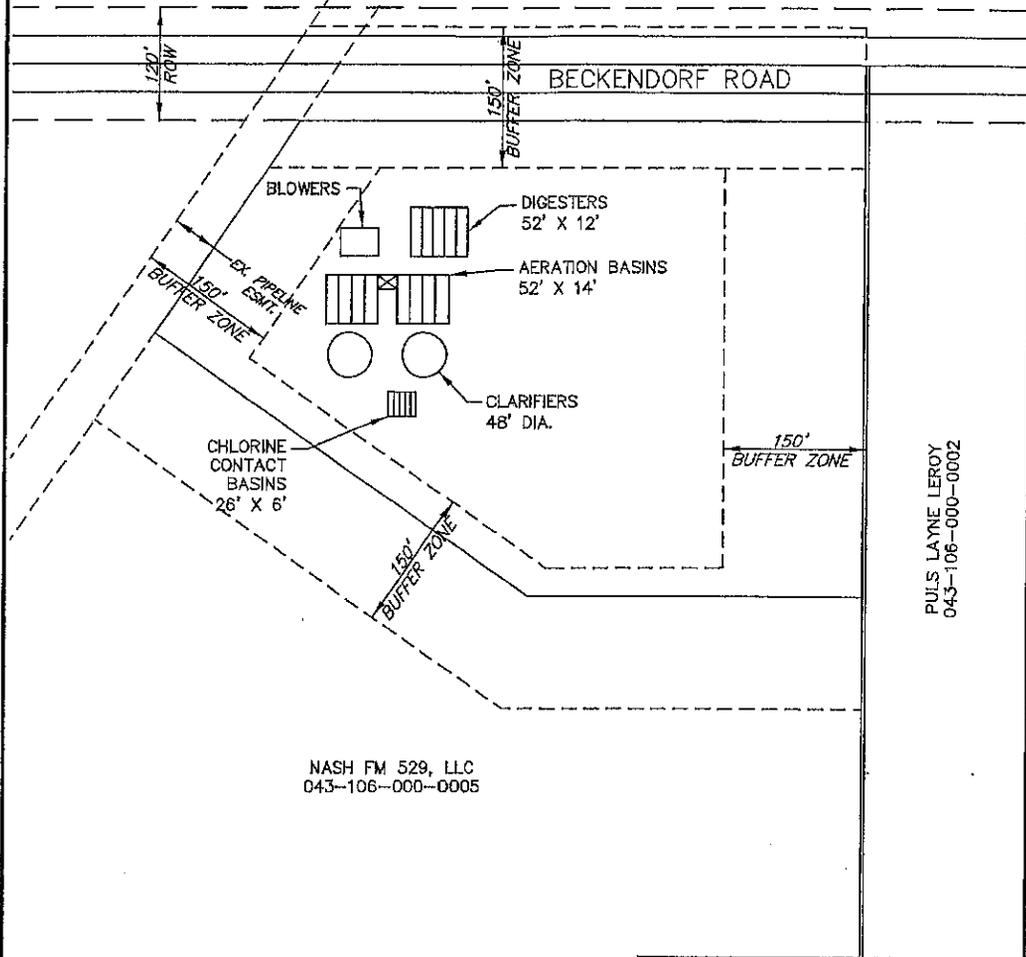
PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

WQ0015264001
Attachment 'A'



HARRIS COUNTY MUD 171 WASTEWATER TREATMENT PLANT		
BROWN & GAY ENGINEERS, INC.		
Brown & Gay Engineers, Inc. 10777 Westheimer, Suite 400, Houston, TX 77042 Tel: 281-558-0700 Fax: 281-558-0701 — Civil engineers and surveyors — www.browngay.com		
NEW TPDES PERMIT APPLICATION		
SITE PLAN WITH BUFFER ZONE INTERIM III PHASE — 1.0 MGD (CORRESPONDS TO DOM. ADMIN. Rpt 1.1, ITEM 2.a, PAGE 16)		
DATE: FEB. 2014	PROJECT #: 2253-00	EXHIBIT: 3C

R:\Projects\WQ0015264001\Drawings\WQ0015264001_0001.dwg 04/22/2014 10:58 AM

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

The following is required for facilities with a permitted or proposed flow of 1.0 mgd or greater, or facilities with an approved pretreatment program. See instructions for further details.

*Worksheet not required for minor amendments without renewal

1. TABLE 4.0(1) – Toxic Materials
(Instructions, Page 84)

Table 1 sample information - indicate type of sample.

Grab Composite

Date and time sample(s) collected: _____

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) (*1)				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

2. TABLE 4.0(2) – Priority Pollutants

(Instructions, Page 84)

Table 2 sample information: indicate type of sample.

Grab Composite

Date and time sample(s) collected: _____

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5

Cyanide (*2)				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. ()	MAX Effluent Conc. ()	No. of Samples	MAL ()
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10

Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC				0.05

(Hexachlorocyclohexane)				
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

TABLE 4.0(2)F (DIOXINS/FURAN COMPOUNDS)
(Instructions page 91)

Complete Table 4.0(2)F as directed. (Instructions, Pages 91-93)

- a. Are any of the following compounds used by a contributing industrial user or significant industrial user that is part of the collection system for the facility that you have reason to believe are present in the influent to the WWTP?

Yes No

If **yes**, indicate with a check mark which compound(s) are potentially sent to the facility and provide a brief description of the conditions of its/their presence at the facility.

- | | | | |
|--------------------------|---|--------------------|----------------|
| <input type="checkbox"/> | 2,4,5-trichlorophenoxy acetic acid | (2,4,5-T) | CASRN 93-76-5 |
| <input type="checkbox"/> | 2-(2,4,5-trichlorophenoxy) propanoic acid | (Silvex, 2,4,5-TP) | CASRN 93-72-1 |
| <input type="checkbox"/> | 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate | (Erbon) | CASRN 136-25-4 |
| <input type="checkbox"/> | o,o-dimethyl o-(2,4,5-trichlorophenyl) phosphorothioate | (Ronnel) | CASRN 299-84-3 |
| <input type="checkbox"/> | 2,4,5-trichlorophenol | (TCP) | CASRN 95-95-4 |
| <input type="checkbox"/> | hexachlorophene | (HCP) | CASRN 70-30-4 |

Description:

- b. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

Yes No

If **yes**, provide a brief description of the conditions for its presence.

- c. If you responded **yes** to either item a or b, complete Table 12 as instructed.

Table 12 for Outfall No. _____

Samples are (check one): Composites Grabs

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

ATTACHMENT D

TCEQ INTRA-AGENCY TRANSMITTAL MEMO

DATE: March 19, 2015

TO: FINAL DOCUMENTS TEAM LEADER
OFFICE OF THE CHIEF CLERK
BUILDING F, MC-105

FROM: Ashley S. McDonald
ENVIRONMENTAL LAW DIVISION
BUILDING A, MC-173

CHIEF CLERK'S OFFICE
2015 MAR 19 PM 2:48
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Attached: Executive Director's Response to Comments

Application Information

Program Area (Air, Water or Waste): **Water**

Permit No. **WQ0015264001** Name: **Nash FM 529, LLC.** Docket/CID Item # (if known): _____

OCC Action Required (check applicable boxes)

Date stamp and return copy to above-noted ELD Staff Attorney and:

FOR ALL PROGRAM AREAS: (required only when changes needed to official agency mailing list)

- Update** the mailing list in your file with the attached contact names and addresses
Include corrected or additional names and addresses for mailing list

FOR WASTE & WATER:

- Send Response to Comments Letter which solicits hearing requests and requests for reconsideration to the mailing list in your files

For Waste and Water this would occur in all circumstances when comments have been received for 801 applications

Or

- Send Response to Comments Letter and Motion to Overturn Letter which solicits motions to overturn to the mailing list in your files

For Waste and Water this may occur when all comments have been withdrawn for 801 applications or when comments are received for applications that will not be set for agenda.

FOR AIR (NSR only):

- Send RTC with response to comments letter which solicits contested case hearing requests and requests for reconsideration to the mailing list in your files

For Air NSR applications this would occur only when there are pending contested case hearing requests (except no-increase renewals)

- Set for commission agenda and send RTC with agenda setting letter

This would occur when there are pending contested case hearing requests on a no-increase renewal and technical review is complete.

- Hold until a commission agenda date is requested and then send RTC with the Agenda Setting Letter

For Air applications this would occur when there are pending hearing requests on a no-increase renewal; but technical review is NOT complete. If this box is checked, ED staff must call the OCC Agenda Team Leader to arrange a specific agenda date.

- Place RTC in File - no further action required by OCC

For Air NSR applications this would occur when the matter is uncontested but comments were received, APD will send a copy with MTO letter

- Other Instructions: _____

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

2/5/19 PM 2:49

CHEMISTS OFFICE

TCEQ PERMIT NO. WQ0015264001

APPLICATION BY NASH
FM 529, LLC. FOR
TPDES PERMIT
NO. WQ0015264001

§
§
§
§

BEFORE THE TEXAS
COMMISSION ON
ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on the Nash FM 529, LLC's (Nash) application for a new Texas Pollution Discharge Elimination System (TPDES) Permit No. WQ0015264001 and the Executive Director's preliminary decision. As required by 30 Texas Administrative Code (TAC) Section 55.156, before a permit is issued, the Executive Director(ED) prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief received timely comment letters from Jarrod Baumann, Shari Boothe, Hanelore Domahidi, James Riley, Christopher Spicer, Tyanne Shacklett, and Brenda Thompson. This response addresses all timely comments received, whether or not they were withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.texas.gov.

I. Background

A. Description of Facility

Nash FM 529, LLC has applied to the TCEQ for a new permit to authorize the discharge of treated domestic wastewater at a daily average flow not to exceed 250,000 gallons per day in the Interim I phase, a daily average flow not to exceed 500,000 gallons per day in the Interim II phase, and an annual average flow not to exceed 1,000,000 in the Final Phase.

The effluent limits in all three proposed phases are 10 mg/l CBOD₅ (carbonaceous biochemical oxygen demand), 15 mg/l TSS (total suspended solids), 2 mg/l NH₃-N (ammonia nitrogen), 63 *E. coli* CFU or MPN per 100 ml, and 6.0 D.O (dissolved oxygen). The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units shall be monitored once per week by grab sample. The effluent shall contain a chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow) and shall be monitored daily by grab sample. The permittee shall dechlorinate the chlorinated effluent to less than 0.1 mg/l chlorine residual and shall monitor chlorine residual daily by grab sample after the dechlorination process. The treated effluent will be discharged to a man-made ditch; then to South Mayde Creek; then to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The unclassified receiving water use is minimal aquatic life use for both the man-made ditch and South Mayde Creek. The designated uses for Segment No. 1014 are limited aquatic life use and primary contact recreation.

The Harris County MUD No. 171 Wastewater Treatment Facility will be an activated sludge process plant operated in the extended aeration single-stage nitrification mode. Treatment units in the Interim I phase will include a bar screen, two aeration basins, a final clarifier, two aerobic digesters, and two chlorine contact chambers. In the Interim II phase treatment units will include a bar screen, four aeration basins, two final clarifiers, three aerobic digesters, and three chlorine contact chambers. Treatment units in the Final phase will include a bar screen, eight aeration basins, two clarifiers, five aerobic digester, five chlorine contact basins, and a dechlorination chamber. The facility has not been constructed. The draft permit authorizes the disposal of sludge at a TCEQ authorized land application site or co-disposal landfill.

The proposed wastewater treatment facility will serve the Harris County Municipal Utility District (MUD) No. 171 service area. The plant site will be located approximately 2,000 feet southeast from the intersection of Beckendorff Road and Porter Road in Harris County, Texas 77493.

B. Procedural Background

The permit application was received on May 30, 2014 and declared administratively complete on August 12, 2014. The Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published on August 22, 2014 in the *Houston Chronicle* (English) and on August 24, 2014 in *La Voz* (Spanish). The ED completed the technical review of the Application on October 2, 2014, and prepared a draft permit. The Notice of Application and Preliminary Decision for Water Quality Land Application Permit for Municipal Wastewater Renewal (NAPD) was published on December 26, 2014 in the *Houston Chronicle* (English) and on December 28, 2014 in *La Voz* (Spanish). The public comment period ended on January 27, 2015. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant House Bill 801 (76th Legislature, 1999).

C. Access to Rules, Laws, and Records

Please consult the following websites to access the rules and regulations applicable to this permit:

- Secretary of State website: www.sos.state.tx.us;
- TCEQ rules in Title 30 of the Texas Administrative Code:
www.sos.state.tx.us/tac/ (select “TAC Viewer” on the right, then “Title 30 Environmental Quality”);
- Texas statutes: www.statutes.legis.state.tx.us;
- TCEQ website: www.tceq.state.tx.us/;
- Federal rules in Title 40 of the Code of Federal Regulations:
www.gpoaccess.gov/cfr/index.html; and
- Federal environmental laws and rules: www2.epa.gov/laws-regulations.

Commission records for this facility are available for viewing and copying and are located at TCEQ’s main office in Austin, 12100 Park 35 Circle, Building F, 1st Floor (Office of Chief Clerk). The permit application, Executive Director’s preliminary

decision, and draft permit are available for viewing and copying at Katy Branch Library, 5414 Franz Road, Katy, Texas.

If you would like to file a complaint about the facility concerning its compliance with provisions of its permits or TCEQ rules, you may call the TCEQ Environmental Complaints Hot Line at 1-888-777-3186 or the TCEQ Region 12 Office directly at (713)767-3500. Citizen complaints may also be filed by sending an e-mail to cmplaint@tceq.texas.gov or online at the TCEQ web site (select "Reporting," then "Make and Environmental Complaint"). If the facility is found to be out of compliance, it may be subject to enforcement action.

II. COMMENTS AND RESPONSES

Comment 1:

Shari Boothe, H. Domahidi, James Riley, Christopher Spicer, Tyanne Shacklett, and Brenda Thompson expressed concerns that the proposed facility and discharge activities will contribute to the increased flooding of Mayde Creek and surrounding neighborhoods. In addition, Christopher Spicer stated that his neighborhood is in a federally recognized 100-year flood plain. James Riley stated that no suitable engineering studies supporting the contention that the creek can handle the run off and/or waste have been provided to the community. Also, James Riley stated that a superficial study of Mayde Creek would reveal that many areas along the creek are clogged with brush and debris, and the creek cannot handle the discharge from the Pulte facility, let alone a second development.

Response 1:

The TCEQ does not have jurisdiction to address flooding issues in the wastewater permitting process. The permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes and coastal waters. The draft permit includes effluent limits and other requirements that the Applicant must meet even during rainfall events and periods of flooding. According to the application, the proposed wastewater treatment plant site is

located above the 100-year flood plain.¹ For additional protection, the draft permit includes Other Requirement No. 6, which requires the Applicant to provide protection for the facility from a 100-year flood.² For flooding concerns, please contact the local floodplain administrator for this area. If you need help finding the local floodplain administrator, please call the TCEQ Resource Protection Team (512)239-4691. Additionally, the Federal Emergency Management Agency (FEMA) has programs that are designed to mitigate damage caused by flooding. You can contact your local floodplain administrator if you have additional flooding concerns.

Other Requirement No. 9 of the draft permit requires that prior to construction, the permittee shall submit, to the TCEQ Wastewater Permitting Section (MC 148) of the Water Quality Division, a summary submittal letter signed and sealed by a professional engineer, in accordance with the requirements in 30 TAC Chapter 217.6(c), Design Criteria for Domestic Wastewater Systems.³ If requested by the Wastewater Permitting Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the permitted effluent limits required on Page 2, 2a and 2b of the draft permit. The provisions of Other Requirement No. 9 are a separate process from the permit application review which determines the impact on waters in the state, the maintenance of existing stream uses and dissolved oxygen levels, and compliance with state and federal regulations.

The ED requires submission of an USGS topographic map (which shows key land features such as streams and their tributaries) and aerial photographs during his review to determine the impacts on waters in the state. Both the USGS topographic map and the aerial photographs indicate that the discharge would be to a man-made ditch; then to South Mayde Creek; then to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The ED has made a preliminary determination that the permitted flow of 1,000,000 gallons per day is not expected to flood the intermittent

¹ Nash FM 529, LLC Permit Application, Domestic Technical Report 1.1, page 12.

² Nash FM 529, LLC Draft Permit, Other Provision No. 6, page 31.

³ Nash FM 529, LLC Draft Permit, Other Provision No. 9, page 32.

unnamed tributary of South Mayde Creek. Using the information listed in the application, the ED does not anticipate any adverse impact to the receiving stream resulting from the proposed discharge.

A comparison to a real-life example might be helpful to show how the proposed discharge could impact water levels in the creek. The proposed permitted Final phase permitted flow, 1,000,000 gallons per day, is similar to 26 standard water hoses (5/8 inch x 50 feet) operating at 60 pounds per square inch. This would be the equivalent of a stream flow of 1.5 cubic feet per second.

Comment 2:

Hanlore Domahidi and Christopher Spicer commented that the proposed wastewater treatment facility will adversely affect the property values of homes in the surrounding area.

Response 2:

The TCEQ does not have jurisdiction to review the effect, if any, the location of a wastewater treatment facility and a proposed discharge route might have on the property values of surrounding landowners in reviewing a domestic wastewater discharge permit application. While the Texas Legislature has given the TCEQ the responsibility to protect water quality, the water quality permitting process is limited to controlling the discharge of pollutants into or adjacent to waters in the state and protecting the water quality of the state's rivers, lakes and coastal waters. The TCEQ cannot consider issues such as property value and development when reviewing wastewater applications and preparing draft permits.

Comment 3:

Shari Boothe commented that the proposed wastewater treatment facility should be located at an alternative location. James Riley expressed concern about the proximity of the proposed facility to neighboring homes and another permitted discharge facility within approximately 1000 ft. of each other. Brenda Thompson stated that the proposed facility's discharge, in addition to the Pulte Homes facility, would result in a combined 2 million gallons per day of effluent discharge into Mayde Creek. Additionally,

Christopher Spicer commented that there is no need for the proposed wastewater treatment facility.

Response 3:

The Texas Water Code §26.121, authorizes discharges into waters of the state, provided that the discharger obtains a permit from the Commission. The TCEQ does not have the authority to mandate a different discharge location or different type of wastewater treatment plant. TCEQ's administrative and technical review of a wastewater discharge application only considers the one proposed discharge route and plant site presented in the application.

The Texas Water Code §26.0282, provides that in considering the issuance, amendment or renewal of a permit to discharge waste, the Commission may deny or alter the terms and conditions of the draft permit, amendment, or renewal based on consideration of need, including the expected volume and quality of influent and the availability of existing proposed area-wide or regional waste collection treatment, and disposal systems not designated as area wide or regional disposal systems by Commission Order. This section is expressly directed to the control and treatment of conventional pollutants normally found in domestic wastewater. According to §26.081 of the Texas Water Code, TCEQ has been mandated to "encourage and promote the development and use of regional and area-wide waste collection, treatment, and disposal systems to serve the waste disposal need of the citizens of the state and to prevent pollution and maintain and enhance the quality of water in the state."

The Domestic Wastewater Permit Application Technical Report requires information concerning regionalization of wastewater treatment plants.⁴ The applicant is required to review a three-mile area surrounding the proposed facility to determine if there is a wastewater treatment plant or sewer collection lines within the area that the permittee can use. The wastewater treatment plant must have sufficient existing capacity to accept the additional wastewater. Nash's permit application indicates that there are other wastewater treatment facilities within a three-mile area surrounding the proposed facility. However, these permitted facilities do not have the capacity or they

⁴ Nash FM 529, LLC Permit Application, Domestic Technical Report 1.1, pages 10 & 11.

are not willing to expand to accept the volume of wastewater proposed in the application.

Comment 4:

Christopher Spicer commented that the proposed facility would qualify as both a public and private nuisance that interferes with the use and enjoyment of his home.

Response 4:

TCEQ does not have jurisdiction to address these types of issues as part of the wastewater permitting process. While the Texas Legislature has given the TCEQ the responsibility to protect water quality, the water quality permitting process is limited to controlling the discharge of pollutants into or adjacent to water in the state and protecting the water quality of the state's rivers, lakes and coastal waters. The TCEQ cannot consider such issues as common law nuisance claims when reviewing wastewater applications and preparing draft permits.

The draft permit does not authorize any invasion of personal rights or any violation of federal, state or local laws. It also does not limit the ability of nearby landowners to use common law remedies for trespass, nuisance, or other causes of action in response to activities that may or actually do result in injury or adverse effects on human health or welfare, animal life, vegetation, or use and enjoyment of property, or that may or actually do interfere with the normal use and enjoyment of animal life, vegetation, or property.

Individuals are encouraged to report any concerns about nuisance issues or suspected noncompliance with the terms of any permit or other environmental regulation by using the contact information listed in Section I.C. above. The TCEQ investigates all complaints received. If the facility is found to be out of compliance with the terms and conditions of its permit, it will be subject to investigation and possible enforcement action.

Comment 5:

Christopher Spicer commented that the proposed effluent discharge from the wastewater treatment facility would push air pollutants directly into his neighborhood and create adverse odor conditions that would impact local residents' quality of life.

Response 5:

The TCEQ rules require that domestic wastewater facilities meet buffer zone requirements for the abatement and control of nuisance odor.⁵ Residential structures are prohibited within the parts of buffers not owned by the applicant, but property use is not limited within the buffer zones by these rules in any other way. The applicable buffer zone distance for the proposed facility is 150 feet from any treatment unit to the nearest property line.⁶ According to the application, no treatment units will be built closer than 150 feet to the nearest existing property line.⁷ The TCEQ rules provide three ways in which the buffer zone requirement can be met. The options are ownership or interest in the buffer zone property, and legal restrictions that prohibit residential structures within the buffer zone. For this permit, the Nash plans to meet this buffer zone requirement by owning the required buffer zone area and right-of-way into Beckendorf Road.⁸ Nuisance odor is not expected to occur as a result of the permitted activities at the facility if the permittee operates the facility in compliance with TCEQ's rules and the terms and conditions of the draft permit.

Individuals are encouraged to report any concerns about nuisance issues or suspected noncompliance with the terms of any permit or other environmental regulation contacting the regional offices listed in I.C. above. The TCEQ investigates all complaints received. If the facility is found to be out of compliance with the terms and conditions of its permit, it may be subject to an enforcement action.

Comment 6:

Hanelore Domahidi commented that the additional operation of the proposed wastewater treatment facility would contaminate the local water wells.

Response 6:

The Water Quality Division has determined that the draft permit complies with the Texas Surface Water Quality Standards (TSWQS).⁹ TSWQS ensure that effluent discharges are protective of aquatic life, human health and the environment. The review

⁵ 30 TAC §309.13(e).

⁶ 30 TAC §309.13(e)(1).

⁷ Nash FM 529, LLC Draft Permit, Domestic Administrative Report 1.1, page 16.

⁸ Nash FM 529, LLC Draft Permit, Domestic Administrative Report 1.1, page 16.

⁹ 30 TAC §307.

process for surface water quality is conducted by the Standards Implementation Team and Water Quality Assessment Team. According to the *Texas Groundwater Protection Strategy*, AS-188, if the surface water quality is protected, then the groundwater quality in the vicinity will not be impacted by the discharge.

According to Nash's application the proposed facility will comply with TCEQ's siting requirements found at 30 TAC §309.13 (a)-(d). The siting requirements do not allow wastewater treatment plant units to be located in a 100-year floodplain (unless the units are protected from inundation and damage that may occur during that flood event) or in wetlands. Additionally, a wastewater treatment plant unit must be located a minimum horizontal distance of 500 feet from public water wells and 250 feet from private wells, springs, and similar sources of public drinking water.¹⁰ According to Nash's application, there are no surface water intakes for domestic drinking water supply within five miles downstream of the proposed outfall.¹¹

In addition, the draft permit requires disinfection of the treated effluent before discharge. Chlorination of the treated effluent is required to provide adequate disinfection and reduce pathogenic organisms. Nash's draft permit requires that its effluent be chlorinated in a dechlorination chamber to a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention of at least 20 minutes (based on peak flow), and shall be monitored five times per week by grab sample.¹² The draft permit contains effluent limits for bacteria, using *E. coli* as the bacterial indicator organism.¹³

Comment 7:

Jarrold Bauman stated that there should be some consideration of the ramifications of a decision to the community and individuals in the surrounding areas that will be negatively affected by the influx of waste water being dumped into Mayde Creek that is independent of a developer's ability to monetarily incentivize a HOA or keep details private about the ramifications of their actions. In addition, he stated that

¹⁰ 30 TAC §309.13 (c).

¹¹ Nash FM 529 Permit Application, Domestic Technical Worksheet 2.0, Receiving Waters, page 14.

¹² Nash FM 529, LLC Draft Permit, pages 2, 2a and 2b.

¹³ Nash FM 529, LLC Draft Permit, pages 2, 2a and 2b.

the permit should be withdrawn and the burden of solutions should be on Pulte Homes and Nash FM 529, LLC.

Response 7:

The TCEQ may not prohibit an applicant from receiving authorization if it complies with all statutory and regulatory requirements. Further, the TCEQ does not consider a company's profit motive in determining whether a wastewater discharge permit should be issued.

CHANGES MADE TO THE DRAFT PERMIT IN RESPONSE TO COMMENT

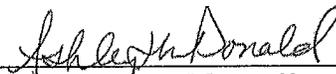
No changes to the draft permit have been made in response to public comment.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E.
Executive Director

Robert Martinez, Director
Environmental Law Division

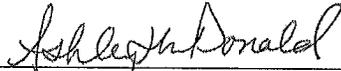


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REPRESENTING THE
EXECUTIVE DIRECTOR OF THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on March 19, 2015, the "Executive Director's Response to Public Comment" for Nash FM 529, LLC Permit No. WQ0015264001 was filed with the Texas Commission on Environmental Quality's Office of Chief Clerk.



Ashley S. McDonald, Staff Attorney
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