

# APPLICATION TO THE TCEQ FOR NEW PERMIT FOR A MUNICIPAL SOLID WASTE FACILITY

## Part IV – Site Operating Plan - MSW Permit No. 2430

Vexara Pharmaceuticals

3300 Bingle Road

Houston, TX 77055

*Prepared For:*

Vexara Pharmaceuticals, LLC

1800 West Loop South Suite 1110

Houston, TX 77027

1-281-830-0284

February 1, 2026

Revision Date: February 27, 2026

*Prepared By:*



# Table of Contents

List of Supporting Documents .....	ii
4.0 Description of Facility & Personnel.....	1
4.1 Generalized Construction Details of Treatment and Storage Units .....	4
4.2 Facility Operation Procedures .....	4
4.3 Safety and Hazardous Waste Recognition .....	5
4.4 Inspection of Incoming Loads.....	5
4.5 Hazardous Waste Handling Procedures.....	5
4.6 Fire Protection Plan .....	6
4.7 Materials along the Route to the Site and Control of Accidental Spillage.....	6
4.8 Spill Containment .....	7
4.9 Sanitation and Periodic Cleaning .....	7
4.10 Maximum Storage Time .....	7
4.11 Contingency Plan for Overloading and Breakdown .....	8
4.12 Quality Control Program.....	8
4.13 Operating Hours .....	9
4.14 Site Sign .....	10
4.15 Easements and Buffer Zones .....	11
4.16 Ventilation and Air Pollution Control .....	11
4.17 Noise Pollution/Vector Control Procedures .....	11
4.18 Access Control and Facility Access Roads.....	11
4.19 Endangered Species Protection.....	12
4.20 Abandoned Oil, Gas or Water Wells .....	12
4.21 Alternate Processing Procedures.....	12
4.22 Water Pollution Control.....	13
4.23 Litter Control and Facility Maintenance.....	15
4.24 Employee Sanitation Facilities.....	15
4.25 Recordkeeping and Manifest Retention.....	15
Supporting Documents .....	17
References .....	19

F# 2507



*Erick V. Emerine*  
03-03-2026

# List of Supporting Documents

---

4.1.1: Construction Plans .....18

## 4.0 Description of Facility & Personnel

---

This is a proposed grease/grit trap, lint and septic waste processing facility. The facility will be an enclosed 7800 sq ft building with roll-up doors. Vacuum trucks containing domestic waste consisting of human waste (municipal sewage wastewater), food greases, lint and grit pumped from septic tanks will be offloaded by hose at a receiving station that will be enclosed by a building and surrounded by a curb to contain small spills. The receiving station will contain an automated trash separating screen (dusky shark or screw press) that will remove large non-biodegradable particulate/trash and convey it to a trash receptacle (10 cubic yard box) which will be taken to a landfill once it is filled. The separated waste will be transferred to a separations tank via a 4" trash pump (200 to 400gpm). This tank is 10' diameter x 33' long and has a capacity of 20,000 gallons. It will be used as a separating tank to allow grease to float to the top from the liquids and bio-solids. The grease on the top of the separation tank will be pumped through a pick heater at 25 gpm that will inject steam directly into the waste stream. This will heat the grease instantly from 60°F to 180°F. The waste stream that exits the pick heater will enter a cyclone tank (cone shaped tank, 10" diameter x 2' tall, 8-gallon capacity) where the waste stream enters the cyclone tank at an angle to make the waste stream spin that allows for further separation of brown grease from the waste liquids and bio-solids. The clarified brown grease will stay at the top of the cyclone tank and discharged through the acceptance port where under residual pressure will flow to a 7,000-gallon high density polyethylene recyclable oil tank where it will eventually be offloaded and taken to a recycling facility. The separated waste liquids and bio-solids that fall out of the bottom of the cyclone will be discharged through the reject port where under residual pressure will flow back into the receiving station for re-processing. The remaining waste liquids and bio-solids in the separation tank will be pumped at 200 to 400 gpm through a series of two storage tanks (10' diameter x 33' long with 20,000-gallon capacity each) and then a 21,000-gallon mixing tank (frac tank 46' x 10' x 8.5') where the waste liquids and bio-solids will be batched for processing with the addition of lime manually added to the mixing tank for pH adjustment (optimal pH level: 6.5-7.5) at the appropriate consistency to allow dewatering process to be optimized. Once the batch volume in the mixing tank is pH optimized, the waste liquids and bio-solids will be pumped at 200 to 400 gpm to one of two dewatering boxes (40 cubic yards each or 8,078 gallons each). Polymer will be injected into the waste stream as it is being pumped into one of the two dewatering boxes that will cause bio-solids to bind with the polymer compound enhancing the further separation of solids from the liquids. The dewatering boxes are built with a special arrangement of screens that allows the effluent wastewater to escape into the designated collection space and then drain through ports in the dewatering box and gravity flow into a sump pump pit. The collected bio-solids in the dewatering box with the aid of the ADS 5084G polymer will form dime to nickel size clumps of solid waste material separated from the effluent

wastewater through the use of a belt press filter media that allows the solids to collect in the box and only allows the effluent water to pass through. One 40-cubic yard dewatering box processes up to 80,000 gallons of waste liquids and solids per day. The expected percentage of waste solids in this waste stream entering the dewatering boxes is 0.5%. From the sump pump pit, the effluent wastewater will be pumped at 200 to 400 gpm into a 6,000-gallon high density polyethylene holding tank. The holding tank will set at ground level and will allow the effluent wastewater to gravity flow to the underground sanitary sewer service line that connects to the City of Houston's sanitary sewer system. There will be a sampling/inspection port consisting of a manhole or other City approved structure on the sanitary sewer service line gravity flowing from the holding tank. This will allow the City of Houston access for sampling and inspection. Once a dewatering box is full of waste solids and can pass a dryness test via a paint filter test, the solids will be offloaded into a 40-cubic yard rollbox and hauled to an approved domestic solid waste disposal site landfill or composting facility. If the solids cannot be hauled immediately to a disposal site, the solids will be stored temporarily in the enclosed facility building in an available storage bay until it can be disposed of. This overall process results in dewatered solids of 18-22% on average, reducing the total volume of waste by up to 95%, and reduces FOG, BOD, COD and TSS levels by an average of 99%.

The facility has contacted the City of Houston and will be applying for any required City of Houston permits and will comply with the conditions within these permits as well. The solids will be stored no longer than 7 business days on-site or what local jurisdiction limits require and then it will be transported to an approved domestic solid waste disposal site landfill or composting facility. The facility plans on processing on average 50,000 gallons of waste liquids and solids per day with a maximum capability of 150,000 gallons per day. Based on 50,000 gallons per day with an expected percentage of waste stream solids at 0.5%, it is anticipated that on average it may take up to 32 days to fill a dewatering box of solids prior to disposal. Operating at maximum capability of 150,000 gallons per day it would be projected that it would take 21 days to fill two dewater boxes of solids prior to disposal.

- Brown grease is composed of fats, oils and grease (FOG). It can clog sewer lines and interfere with septic systems and sewage treatment operations. Recognition of its value for production of fertilizer, biodiesel and other products, as well as stringent EPA regulations, are driving a trend of brown grease recycling.
- The solid waste will consist of food particles, grit and septic waste. The lipids are made up of fatty acids, triacylglycerols and fat-soluble hydrocarbons and originate from scraps of baked and fried food items removed from grease traps. The grit includes sand, gravel, cinder, as well as eggshells, bone chips, seeds, coffee grinds and large organic materials (food waste). Septic waste is the liquid and water-borne waste derived from ordinary living processes.
- The liquid waste will be the grey water that is mixed with the solids in the grease and grit traps as well as in the septic tanks.

The proposed facility is working with the City of Houston to obtain a permit to discharge into the City of Houston's sewage treatment system via underground lines. No other permit is required under TPDES or another agency (330.65(d)).

The proposed facility will be operated by a facility manager to ensure proper operation with the design and standards. Also, 5-7 full-time employees will be assigned to the facility. The facility manager will receive hazardous waste screening training. Each employee will have the necessary training and experience to operate all equipment onsite. Facility personnel will be trained in the appropriate sections of the facility's health and safety plan. The operating plan provides guidance on the procedures for site management and operating personnel to conduct day-to-day operations in accordance with the permit requirements.

The minimum number of staff to operate the facility is two, and they are as follows:

**Facility Manager**

1. Supervising all the activities to ensure the safety of all personnel/visitors on site including training and monitoring of the dewatering process;
2. All required recordkeeping;
3. Supervising the operations, processing of materials and equipment inspections;
4. Coordinating with the City of Houston for wastewater discharge, handling and monitoring requirements as well as other agencies;

**Site Employee/Operator**

1. Accepting waste, handling operations and discharge of the processed waste in accordance with the rules explained through 4.0 Site Operating Plan of this application;
2. Ensure the wastewater trucks are properly secured in order to prevent spills and report any violations to the proper authorities;
3. Perform routine maintenance activities;
4. Clean-up spilled materials, cleaning all working surfaces that come in contact with waste material at least 2-3 times per week and tank cleaning;

Attendants/Employees onsite will be trained per the operating manual, and a class B wastewater technician will be available at all times during business hours.

## 4.1 Generalized Construction Details of Treatment and Storage Units

---

The construction and operation of the waste management facility shall comply with Subchapter U of 30 TAC Chapter 330 or other approved air authorizations.

General construction specifications for the treatment units (dewatering tank, polymer mixing and dosing unit, pump, hose, materials and coatings) and typical drawing details of the dewatering tank are contained in Supporting documents – Figure 4.1.1.

## 4.2 Facility Operation Procedures

---

Registered transporters will bring material to the facility in enclosed trucks. The site manager or trained site employee/operator will be on site at all times during operation.

Liquid waste (grease from restaurants, grit from commercial car washes, septage) is delivered to the facility by truck. The load/material will be inspected to make sure no prohibited or unauthorized waste is delivered to the facility. The wastewater will be offloaded from the truck via hose into a receiving station with an automated trash screen. The large trash will be separated out and put into a 10 cubic yard dumpster to be hauled to the landfill. The liquid waste with suspended solids will then go through a 4" trash pump into a 20,000-gallon separation tank (10' diameter x 33' long) and then the separated grease will be pumped into a pick heater and cyclone tank by a trash pump to separate out the brown grease. The brown grease will be stored in a poly oil storage tank so it can be recycled. The separated waste liquids and bio-solids that fall out of the bottom of the cyclone will be discharged through the reject port where under residual pressure will flow back into the receiving station for re-processing. The wastewater and biosolids that remain in the separation tank will be pumped through a series of 2 storage tanks until it reaches the mixing tank where lime will be added to the mixture. This mixture will be pumped into the dewatering boxes. As it is being pumped over, the polymer will be injected into the solution to start the separation process. The solids flocculate and separate from the liquids. The liquids will drain through an opening in the wall of the box and collect in a sump pump pit where it will be pumped to a holding tank to be visual inspected, sampled as needed and pumped to the City of Houston sewer treatment system via underground lines. The facility will follow the requirements set forth in the City of Houston permit. Solids retained in the dewatering box will be offloaded into a rollbox and transferred to an approved disposal site or composting site. The dewatering process is complete after the solids drain for several hours.

The products of this process include treated water and dewatered solids.

- Brown grease: It can clog sewer lines and interfere with septic systems and sewage treatment operations. Recognition of its value for production of fertilizer, biodiesel

and other products, as well as stringent EPA regulations, are driving a trend of brown grease recycling.

- Water: The wastewater will be pumped into a holding tank for visual inspection to ensure the process is functioning as designed before entering a sampling station for city inspection and on to the city of Houston wastewater treatment plant.
- Solids: Dewatered solids in the dewatering boxes will be transferred from the facility by a roll-off truck. It will be delivered to an approved disposal site or composting site in the Houston area.

### 4.3 Safety and Hazardous Waste Recognition

---

Safety procedures will be developed and adapted for the facility with training provided to all employees. All activities will be supervised by the facility manager to ensure the safety of all employees/visitors at the facility.

Vexara Pharmaceuticals employees who are responsible for incoming load inspections will be trained to recognize the potential for the presence of hazardous wastes as defined in 490 Code of Federal Regulations Part 261 and/or PCB wastes as defined by 40 Code Federal Regulations Part 761. The training is required before an individual is qualified to inspect incoming loads. An annual refresher course is required.

The training program should include identification of characteristic odors or visual signs of the presence of hazardous waste characteristics within the material processed at the facility. This training will be provided to all Vexara Pharmaceuticals employees responsible for unloading material.

### 4.4 Inspection of Incoming Loads

---

Trained employees will be responsible for accepting and directing the transport of all waste. These employees are responsible for visual inspections of all loads of waste material coming into the facility to minimize the possibility of unauthorized material being accepted and to verify the load information provided by the generator and transporter.

Attendants onsite will be trained per the operating manual, and a class B wastewater technician will be available at all times during business hours.

### 4.5 Hazardous Waste Handling Procedures

---

In the instance that an incoming load contains hazardous waste or PCB waste, the material will not be unloaded, and the transporter will be responsible for removing the material from the site.

If Vexara Pharmaceuticals inadvertently accepts hazardous waste, the facility manager will contain the accepted material by terminating process flow and return material back

to transport if feasible or contact a company licensed and permitted to handle and dispose of such materials. The TCEQ will be notified immediately if this occurs.

## 4.6 Fire Protection Plan

---

In an emergency, The Houston Fire Department can be reached by dialing 911. The facility will be equipped with fire extinguishers in the office area and around the processing area. All employees will be trained in fire extinguisher use and communication and response in the event of a fire.

The grease trap, sewer sludge and septage materials have sufficient water content to prevent ignition hazard. The brown grease recycling process involves controlled heat. The dewatering process does not involve heat, and generation of heat or flammable vapors is insignificant. Pressurized water is available on-site.

## 4.7 Materials along the Route to the Site and Control of Accidental Spillage

---

There will be no issue of blowing material from open air trucks. The waste material is brought to the facility in tank trucks filled with liquids and sludges. Employees will take necessary steps to ensure that the tank trucks are secured in order to prevent any spills.

Facility employees will be on-site and supervise the unloading process. The waste material will be unloaded via pressurization of the tanker truck pumps and discharging via hose to the receiving station. The dewatering boxes will be positioned inside the building and stored and tarped inside when full. Any spills will be contained in the building or with a curb and can easily be pumped back to the receiving station or storage tanks.

All tanks/containers used for storage will be in the enclosed building or curbed.

Trained employees will only be processing the waste material. Inspections of all connections and piping will be completed regularly during operation. If leakage is detected, waste processing will stop and the leak will be repaired.

Spills of waste material along routes are expected to be minimal because the facility receives liquid waste from enclosed tanker trucks. However, the facility will be responsible for clean-up of waste material manifested to the site that are spilled along and within the right of way of public access roads serving the facility for a distance of two miles in either direction from the entrance used for waste delivery when the facility is in operation in coordination with local authorities or the Texas Department of Transportation before the clean-up operations commence.

## 4.8 Spill Containment

---

In the event of a spill from the receiving area, storage area or processing area, the spill will be contained within the walls of the enclosed 7,800 square foot building. The holding tanks located outside the building will be curbed in the event of a spill.

## 4.9 Sanitation and Periodic Cleaning

---

The equipment will be regularly inspected and cleaned to minimize solid loading. All working surfaces that are in contact with waste material will be washed at least 2-3 times per week. All solids removed from the storage tanks will be processed through the dewatering boxes. Wash water will be collected in sump pump pit and then pumped to the storage tank to be pumped to the City of Houston sanitary sewer system via underground lines. No wash water will accumulate.

## 4.10 Maximum Storage Time

---

The proposed facility is designed with a receiving station where the trucks will be offloaded with a hose. From there the liquid is pumped into a 20,000-gallon separation tank. This is where the brown grease separation occurs and the remaining liquid is pumped back into the receiving station. The liquid and biosolids remaining in the separation tank will be pumped through a series of 2 storage tanks each with a 20,000-gallon capacity and then into a mixing tank (21,000 gallons) where lime is added for pH adjustment. *From here, the wastewater is injected with the polymer and pumped to one of two dewatering boxes with tarps (40-cubic yard with capacity of 8,078 gallons each), providing adequate design capacity to process waste without delays.* The solids will be stored no longer than 7 business days on-site or what local jurisdiction limits require and then it will be transported to an approved domestic solid waste disposal site landfill or composting facility. The facility plans on processing on average 50,000 gallons of waste liquids and solids per day with a maximum capability of 150,000 gallons per day. Based on 50,000 gallons per day with an expected percentage of waste stream solids at 0.5%, it is anticipated that on average it may take up to 32 days to fill a dewatering box of solids prior to disposal. Operating at maximum capability of 150,000 gallons per day it would be projected that it would take 21 days to fill two dewater boxes of solids prior to disposal.

All solids sent to the landfill will pass the Paint Filter Liquids Test (EPA Method 9095B). Any testing required by the landfill for classification of waste will be followed and records of all analyses will be retained on-site for a minimum of three years.

## 4.11 Contingency Plan for Overloading and Breakdown

---

The design capacity of the facility will not be exceeded during operation. If the facility receives waste quantities that cannot be processed within a time frame to prevent the creation of odors, insect problems or vector harboring, additional waste will not be received until the conditions are back to normal operation.

If a major mechanical breakdown or a significant work stoppage occurs which causes the waste storage tanks to become full, no additional waste will be accepted. Measures will be taken to prevent the settlement of solids in the storage tanks.

In the event of an extended breakdown over 72 hours, all incoming material will be diverted directly to the landfill. Vacuum trucks will be utilized to take stored waste to other waste disposal facilities. Any spills will be contained inside the building or curb and cleaned up immediately.

## 4.12 Quality Control Program

---

In order to meet state and local regulations, the facility has adopted the following rules for site operation:

- No unloading or processing of any hazardous waste or prohibited material.
- Diverting material from the waste stream without processing is not considered recycling.
- The material received at the facility will be visually inspected.
- The unloading of material in unauthorized areas is prohibited.
- The wastes received at the facility shall be manifested. The manifests must have the information required by the agency. The following information is expected:
  - Name of waste generator
  - Physical address of waste generator
  - Telephone number of responsible party
  - Type of waste generated and removed
  - Size of vessel
  - Volume of waste removed
  - Signature (with date) of waste generator
  - Name of transporter
  - Telephone number of the transporter
  - TCEQ registration of transporter
  - Vehicle or disposal permit number of transporter
  - Signature of transporter
  - Disposal or processing site
  - Permit number of disposal or processing site; and

- o Signature of (and date) of the site operator

The material will be rejected if discrepancies are found on the manifest.

All solids sent to the landfill will pass the Paint Filter Liquids Test (EPA Method 9095B). Any testing required by the landfill for classification of waste will be followed and records of all analyses will be retained on-site for a minimum of three years.

The facility will analyze wastes received for benzene, lead, and total petroleum hydrocarbons (TPH). Grit trap wastes will be analyzed annually for BOD, TSS, benzene, and pH. Records of each analysis will be retained on-site for a minimum of three years. All sampling and analysis shall be done according to EPA-approved methods.

The facility will be operated such that a sludge that is accepted at municipal landfill will not exceed the benzene, lead and THP concentrations. Sludges exceeding these limits will not be disposed of in a municipal solid waste landfill and will be sent to an authorized facility for further processing or disposal as hazardous waste, as appropriate or disposed in a municipal solid waste landfill with dedicated Class 1 industrial solid waste cells if the sludge is nonhazardous.

<u>Contaminant</u>	<u>Total Limit</u>	<u>TCLP Limit</u>
Benzene	10 milligrams per kilogram (mg/kg)	0.5 milligrams per liter (mg/L)
Lead	30 mg/kg	1.5 mg/L
Total petroleum hydrocarbons (TPH)	1,500 mg/kg	not applicable

### 4.13 Operating Hours

The waste acceptance hours of the facility will be between 4:00 a.m. and 6:00 p.m., Monday-Friday and Saturday 4am-noon. A trained employee will be onsite during normal business hours. Emergency approval will be obtained from the TCEQ Regional Office for acceptance of waste outside permitted hours. A log will be kept in the site operating plan to record dates, times and duration when any alternative operating hours are utilized. The commission's regional offices may allow additional temporary operating hours to address disaster or other emergencies or unforeseen circumstances that could result in the disruption of waste management services in the area.

## 4.14 Site Sign

---

The facility will display at all entrances to the facility where waste is received, a sign measuring at least four feet by four feet with letters at least three inches in height stating the facility name, type of facility, hours and days of operation, the permit number or facility number and facility rules.

## 4.15 Easements and Buffer Zones

---

Waste unloading, storage and processing operations will not occur within any easement, buffer zone or right-of-way that crosses the site. All pipeline and utility easements will be clearly marked with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet.

A minimum separating distance of 50 feet will be maintained between solid waste processing and disposal activities and the boundary of the facility.

## 4.16 Ventilation and Air Pollution Control

---

The facility is completely enclosed to prevent nuisance odors from leaving the property by minimizing the contact between unprocessed waste and air. All liquid and solid waste will be stored in odor retaining containers and vessels. The storage tanks are curbed and enclosed. Liquid from the mixing tank will be pumped to the dewatering box. Typically, solids will not remain in the boxes long enough to create an odor problem. Tarps will be used to cover the boxes as needed to limit the odors and stored inside. No air emissions from the facility will cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act. Based on other facilities like this facility, no air permit is required. The owner or operator will obtain all required authorizations under Chapter 116 or Subchapter U from Air Permits Division, if required.

The enclosed facility has a large exhaust fan on the south end that would expel the odorous air higher into the atmosphere for odor abatement as well as roof vents. The empty containers will be washed down with hot water and degreaser.

The facility will not be open on Sunday.

## 4.17 Noise Pollution/Vector Control Procedures

---

Noise pollution should be minimal. The facility will receive around 10 trucks a day that will unload and load within the enclosed building or the area of the enclosed building.

Vectors are not expected to be an issue because the waste is fully controlled within the storage and processing site. Spills will be cleaned up immediately on discovery. If a problem develops, a pest control service will be contacted to eliminate the issue.

## 4.18 Access Control and Facility Access Roads

---

Public access to the facility will be controlled by means of artificial barriers such as a locked entrance gate to protect human health and safety and the environment. The facility is an enclosed building that will be off-limits to the public. The facility and the gate will be locked during non-operating hours.

Traffic will access the facility via Bingle Road from the North or South and then exit on the Bingle Road via the existing driveway on the west side of the property. The site traffic will not use any residential streets. Bingle Road is a paved roadway. The estimated 10 vehicles/day generated by the facility will not cause disruption of normal traffic patterns.

The internal driveway from the facility entrance to the facility processing area is asphalt and concrete. Roadways within the facility will be inspected daily and cleaned as required. Dust generation will be minimal due to the asphalt roads as well as slow truck speeds. No tracking of mud will occur. No solid waste unloading, storage, disposal or processing operations will occur within any easement, buffer zone or right-of-way that crosses the facility. Sufficient parking will be available for facility personnel and visitors.

Attendants on site will be trained per the operating manual and a class B wastewater technician will be available at all times during business hours.

## 4.19 Endangered Species Protection

---

The facility will operate in such a manner not to destroy or affect the critical habitat of endangered or threatened species. See Part 2.7.

## 4.20 Abandoned Oil, Gas or Water Wells

---

There are no known abandoned oil, gas or water wells on the site. If any abandoned oil, water or gas wells are discovered, the Executive Director of the TCEQ will be notified immediately. The facility will take the necessary steps to plug such wells required by TCEQ or other state agencies and notify the Executive Director of the TCEQ within 30 days after plugging. The facility will be connected to city water.

## 4.21 Alternate Processing Procedures

---

In the event that the storage tanks are full or inoperable, material will not be accepted. Incoming loads will be re-routed to the landfill. Vacuum trucks will be utilized to take stored waste to other approved disposal sites.

If the transfer pump, polymer system, dewatering box or the drain system is not functioning, material may be received if storage capacity is available. In the event of an extended breakdown over 72 hours, all incoming material will be diverted directly to an approved landfill. Vacuum trucks will be utilized to take stored waste to other waste disposal facilities.

## 4.22 Water Pollution Control

---

The entire facility from unloading, storage and processing will be undercover or curbed. The waste storage units are completely covered or enclosed and do not constitute fire, safety, health or litter hazards. There will be no surface water discharges from these areas or ponded water onsite that could become a nuisance.

All liquids resulting from the operation of processing solid waste will be disposed of in a manner that will not cause surface or ground water pollution. Wastewater from the dewatering process is discharged into the sewer line at the west boundary of the facility in accordance with City of Houston Sanitary Sewer Department Requirements.

The daily effluent design standard for oil and grease concentration leaving the facility and entering a public sewer system shall not exceed 200 milligrams per liter, the concentration established in the wastewater discharge permit pretreatment limit or the concentration established by the treatment facility permitted under Texas Water Code, Chapter 26, the National Pollutant Discharge Elimination System, or following liquid effluent limits, if the discharge points do not require compliance with locally set limits.

30 TAC A§330.207(g)

<b>Effluent Characteristics</b>	<b>Effluent limitations</b>	
	Maximum for any one day:	Average of daily values for 30 consecutive days shall not exceed:
	Metric units (kilograms (kg))/1,000 kg of raw material)	
Oil and grease	0.10	0.05
Total petroleum hydrocarbons (TPH)	0.01	0.01
pH	5.5 - 10.5	5.5 - 10.5
	English units (pounds (lbs))/1,000 lb of raw material)	
Oil and grease	0.10	0.05
TPH	0.01	0.01
pH	5.5 - 10.5	5.5 - 10.5

## 4.23 Litter Control and Facility Maintenance

---

Routine maintenance will be completed by Vexara Pharmaceuticals employees. Outside contractors will be used if needed. Regular maintenance activities include:

- All working surfaces that come in contact with waste will be washed down at least 2-3 times per week
- Wash water will be collected and disposed of in the dewatering process
- Litter and windblown material resulting from the operation will be collected and disposed of properly at least twice per week to minimize unsightly conditions
- Firefighting equipment will be checked on a monthly basis to ensure it is in working condition
- Operation equipment will be maintained and serviced routinely for proper processing conditions

## 4.24 Employee Sanitation Facilities

---

Potable water and a restroom facility are provided for use of employees and visitors in the designated office area.

## 4.25 Recordkeeping and Manifest Retention

---

Manifests will be retained on-site as required by 30 TAC §312.145.

Trip Tickets have five parts:

Part 1- Generator and transporter information – given to generator at time of pick-up

The remaining four parts will have required information filled out completely and signed by appropriate parties before distribution of ticket. All four parts will be signed by Vexara personnel.

Part 2- Remains on file at Vexara Pharmaceuticals

Part 3- Returned by transporter to the waste generator within 15 days after the waste is received at the processing facility

Part 4- Transporter copy for records

Part 5- Available for local authority, if needed

Copies of all manifests will be retained for five years and readily available for review by TCEQ staff.

The executive director of TCEQ will be notified in writing annually of documents added to the operating records as required by 30 TAC §330.675.

The following documents must be kept on-site and readily available:

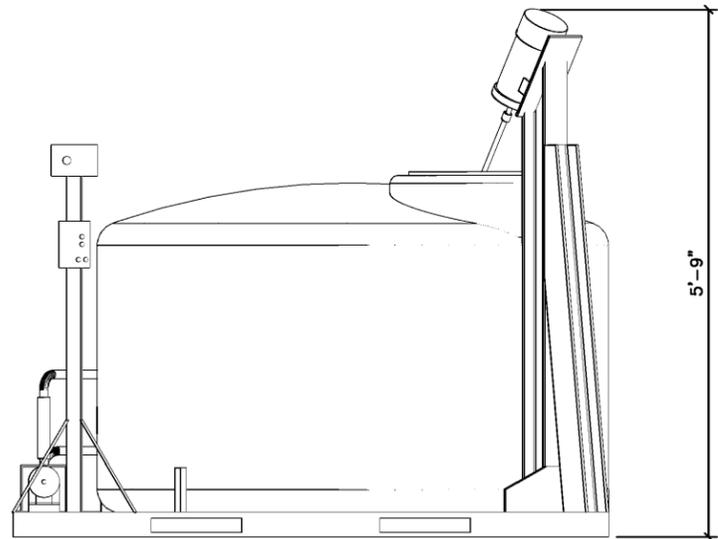
- Copy of permit application, site operating plan, final closure plan
- Any and all location restriction demonstrations
- Inspection records and training procedures
- Notification procedures related to the exclusion of the receipt of the regulated hazardous waste and/or PBC waste
- Cost estimate and financial assurance documentation relating to financial assurance for closure
- Copies of all correspondence and responses related to the operation of the processing facility, modification to the permit, approvals and any other documents referring to technical assistance
- All information in the operating record for the life of the facility

All reports required by the Executive Director will be submitted based off the permit reporting requirements. All reports will be signed by the person who is duly authorized as signatory for the reports according to 305.44(b). If the authorized signatory is no longer accurate, a new authorization will be submitted.

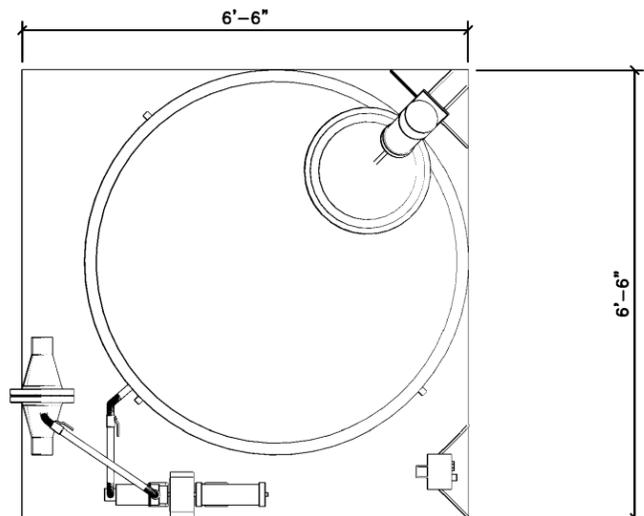
## Supporting Documents

---

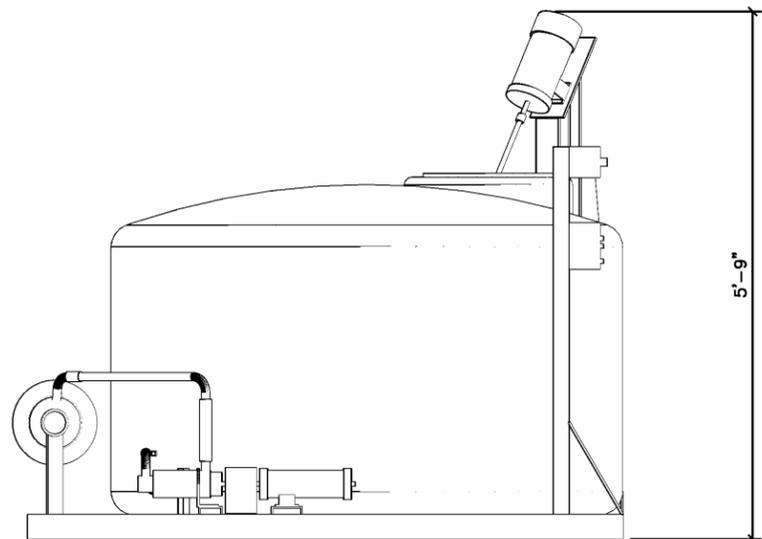
## 4.1.1: Construction Plans



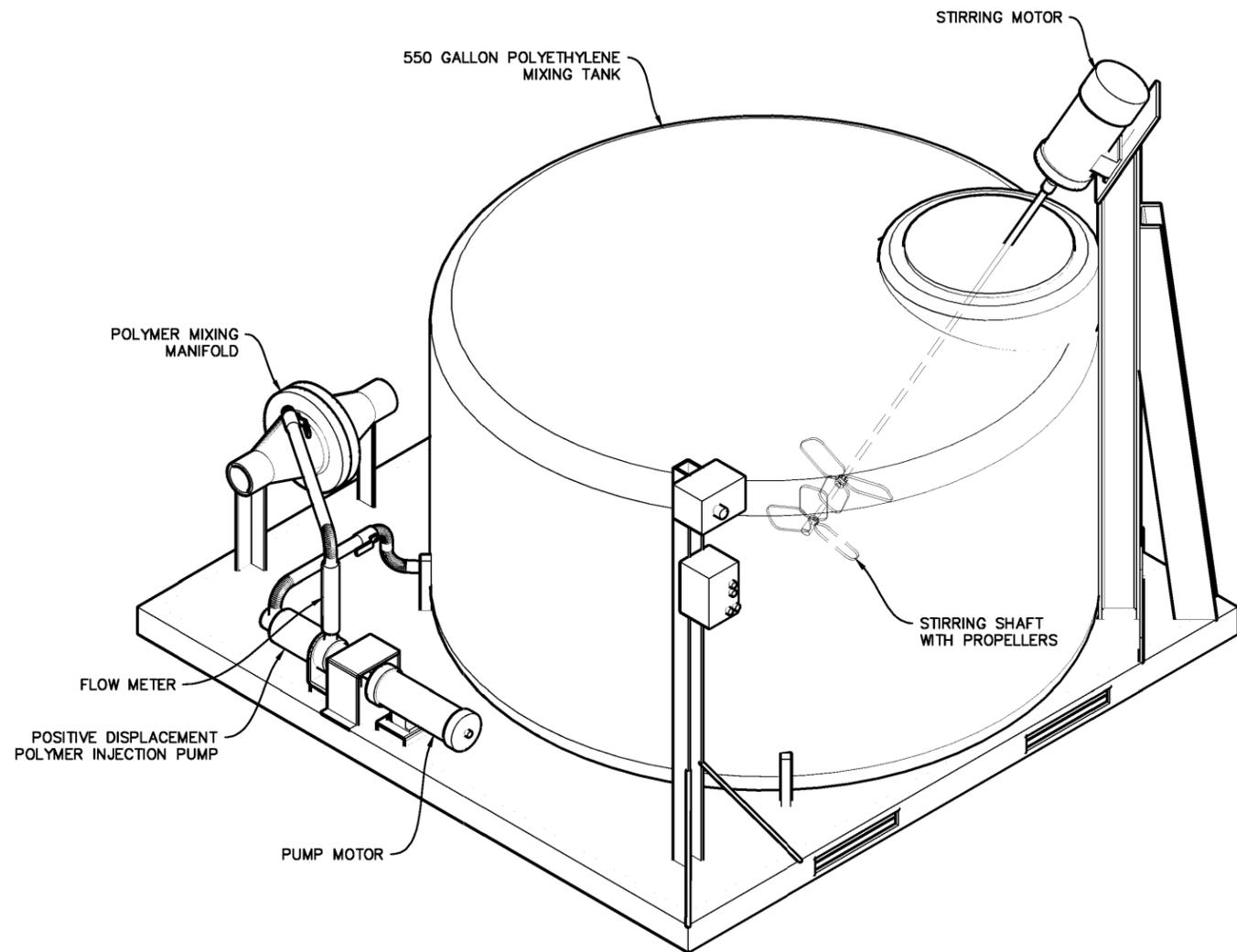
**RIGHT SIDE VIEW**



**TOP VIEW**



**FRONT VIEW**



**ISOMETRIC VIEW**



1221 AVENUE F  
BAY CITY, TEXAS 77414  
PH: (979) 245-8900  
FAX: (979) 245-5345

JOB No:	32933
DRAWN BY:	JSS
SCALE:	AS SHOWN
DATE:	6/29/2020

AQUA-ZYME POLYMER MIXING UNIT

VAN VLECK, TEXAS

DETAILS

**SPECIFICATIONS**  
ADS-Polymer Unit Specifications

**PRODUCTS AND EQUIPMENT**

**□ Polymer Mixing and Dosing Unit**

All components shall be mounted on a single skid constructed of 3" channel iron and 3/16" carbon steel plate.

Dimensions of the complete unit shall be 78" L x 78" W x 69" H. Unit shall be constructed such that the forks of a fork lift can be inserted into the base of the skid to allow the entire unit to be moved.

Skid shall be primed with a 2-part epoxy; top coated with a polyurethane finish.

All equipment mounted on the Polymer Mixing and Dosing Unit shall be suitable for expected operating conditions.

Polymer Mixing and Dosing Unit shall be capable of accepting liquid polymer.

The Polymer Mixing and Dosing Unit shall include the following features:

- ✓ One (1) 550 gallon polyethylene mixing tank
- ✓ One (1) solid Stainless Steel 3/4" mixing shaft equipped with two (2) 4" Stainless Steel mixing propellers
- ✓ One (1) TEFC 1.5 HP AC electric stirring motor (110v)
- ✓ One (1) TEFC 1 HP DC electric pump motor (110v)
- ✓ One (1) positive displacement polymer injection pump having an adjustable capacity of 3-27 gpm
- ✓ One (1) 3" x 6" polymer mixing manifold with a five-ply neoprene shear plate
- ✓ One (1) 110v (20 amp), single phase electrical supply junction box
- ✓ One (1) Baldor DC controller
- ✓ One (1) flow meter graduated with a flow range of 3–27 gpm
- ✓

**AQUA-ZYME DISPOSAL SYSTEMS, INC.**

P. O. Box 489

Van Vleck, TX 77482

(979) 245-5656

- ✓ One (1) 110v variable rheostat switch and a mixing "on/off" power switch
- ✓ One (1) 25' electrical power cord with 3-way grounded plug

**OPTIONAL EQUIPMENT**

**Prefabricated Aluminum Working Platform**

Extra heavy-duty custom aluminum working platform with locking casters and 3' x 5 1/2' top landing with 33 1/2" high two-line guard rails and 3 riser stairway with 34" high two line handrails

**3" Wye Fitting with NPT male threaded ends**

**15' x 3" Suction Hose**

One (1) or two (2) lengths of 3" hose with camlock fittings suitable for purpose intended.

**DETAILED DESCRIPTIONS**

**ITEM #1** The ADS Polymer Mixing & Dosing Unit shall be completely shop assembled. When delivered, unit will be ready for installation.

**ITEM #2** Controls shall contain the necessary equipment and devices for controlling one ADS Polymer Mixing & Dosing Unit.

**MATERIALS OF CONSTRUCTION**

All materials used in the construction of the ADS Polymer Mixing & Dosing Unit shall be of the best quality and entirely suitable in every respect for the service required. All structural steel shall conform to the ASTM Standard Specification for Structural Steel. All iron castings shall conform to the ASTM Standard Specifications for Gray Iron Castings, and shall be of a class suitable for the purpose intended. Other materials shall conform to the ASTM Specifications where such specifications exist; the use of such materials shall be based upon continuous and successful use under similar conditions of service. Unless otherwise specified herein, all materials in contact with the polymer solution or waste material shall be suitable for the environment intended.

**AQUA-ZYME DISPOSAL SYSTEMS, INC.**

P. O. Box 489

Van Vleck, TX 77482

(979) 245-5656

**TAXES**

Federal, State or local sales use or other taxes applicable to this transaction shall be added to the sale price for the Purchaser's account.

**FREIGHT**

All prices are quoted FOB shipping point, Van Vleck, Texas, unless otherwise indicated.

**OPERATING MANUALS**

Operating instructions and maintenance manuals will be forwarded with shipment of equipment, unless otherwise indicated.

**NOT INCLUDED**

Unless specifically mentioned for inclusion with the proposed equipment, the proposal **DOES NOT INCLUDE:**

- Spare parts (other than outlined above)
- Shipping, unloading, or storage
- Equipment erection or field welding
- Concrete work, grout, or sealant
- Field cleaning or field painting
- Protection against rusting or deterioration due to unprotected storage at your site
- Piping, valves, or fittings (other than outlined above)
- Pipe hangers or supports
- Lubricating oil or grease
- Wire, wiring, or conduit
- Motor starters or controls (other than outlined above)
- Electric controls including alarms and signals (other than outlined above)
- Any electrical devices not described above
- Polymer or any other chemical

**Note: Polymer can be supplied by ADS under separate contract.**

**WARRANTIES**

All warranties will be manufacturers' of equipment warranties, generally for 1 year and excludes any manner of damage due to misuse, mischief, or otherwise use of equipment not for intended purposes.

# References

---

## REFERENCES

Aqua-Zyme Disposal Systems, Inc. Available at [www.aqua-zyme.com](http://www.aqua-zyme.com) . Accessed 1/2026