

**APPENDIX K – E & P WASTE MANAGEMENT AND OPERATIONS PLAN**

*E&P Waste Management and Operations Plan including a detailed statement of the proposed method of operation and procedures for the receipt, storage, treatment and/or disposal of E&P Wastes (Section 519.C.11 & Section 515)*

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## E and P WASTE MANAGEMENT AND OPERATIONS PLAN

### 1. Facility Description

By definition in LAC Title 43, Part XIX, Subpart 1, Chapter 5 Statewide Order 29-B, the Defiance Energy Services, LLC (Defiance) Salt Water Disposal (SWD) Facility (The Facility) is a Class II, Type B Facility – a commercial E and P Waste disposal facility within the state that utilizes underground injection technology for the receipt, storage, treatment, and disposal of only saltwater or other E and P waste fluids (liquids) for a fee or other consideration in accordance with LAC Title 43, Part XIX, Subpart 1, Chapter 5 Statewide Order 29-B.

### 2. Disposal Rates and Volumes of Waste Processed Daily by the Proposed Facility

#### A. Average Daily Waste Volume

- The average volume of waste that enters The Facility is estimated at 15,000-barrels per day.

#### B. Average Daily Disposal Rate.

- The average daily disposal rate is estimated at 15,000-barrels per day and at approximately 10.4-barrels per minute.

The maximum daily rate of waste disposal is estimated at 25,000-barrels per day and at approximately 17.4-barrels per minute.

### 3. Description of Type of Waste Received and Processed by The Facility

The following “types” of waste are processed, stored, and injected down hole into an onsite disposal well at The Facility on a daily basis:

*Exploration and Production Waste (E and P waste)* - drilling wastes, salt water, and other liquid wastes associated with the exploration, development, or production of crude oil or natural gas wells and which is not regulated by the provisions of, and, therefore, exempt from the Louisiana Hazardous Waste Regulations and the Federal Resource Conservation and Recovery Act, as amended. E and P Wastes to be injected into the onsite disposal well at The Facility on a daily basis include:

#### A. Type 01 Defined as:

Salt water (produced brine or produced water), except for salt water whose intended and actual use is in drilling fluids, workover or completion fluids or in enhanced mineral recovery operations, process fluids generated by approved salvage oil operators who only receive oil (BS and W) from oil and gas leases, and nonhazardous natural gas plant processing waste fluid which is or may be commingled with produced formation water.

B. Type 04 Defined as:

Completion, workover, and stimulation fluids.

C. Type 08 Defined as:

Produced formation fresh water.

D. Type 09 Defined as:

Rainwater from firewalls, ring levees, and pits at drilling and production facilities.

E. Type 10 Defined as:

Washout water and residual solids generated from the cleaning of containers that transport E and P waste and are not contaminated by hazardous waste or material; washout water and solids (E and P waste Type 10) is or may be generated at a commercial facility or transfer station by the cleaning of a container holding a residual amount of E and P Waste.

F. Type 11 Defined as:

Washout pit water and residual solids from oil field related carriers and service companies that are not permitted to haul hazardous waste or material.

G. Type 14 Defined as:

Pipeline test water which does not meet discharge limitations established by the appropriate state agency, or pipeline pigging waste, i.e., waste fluids/solids generated from the cleaning of the a pipeline.

H. Type 15 Defined as:

E and P wastes that are transported from the permitted commercial facilities and transfer stations to permitted commercial treatment and disposal facilities, except those E and P waste defined as waste Types 01 and 06.

I. Type 16 Defined as:

Crude oil spill clean-up waste.

J. Type 99 Defined as:

Other E and P waste not described above (shipment to a commercial facility or transfer station must be preapproved prior to transport).

Defiance intends to receive only the liquid portions of Waste Types 15, 16, and 99 at The Facility.

**4. Description of Methods Followed to Assure Proper Handling of the Origination of the Waste Through the Final Disposal at the Proposed Facility**

All E and P waste must be accompanied by a properly completed manifest (“E and P Waste Shipping Control Ticket” (Form UIC-28)) to be accepted into The Facility. This waste movement and disposal monitoring method must include the following:

A. Generator and Transporter

1. The generator or initiator of the waste must possess an operator code number and complete and sign Part I of the Form UIC-28.
2. The transporter of the waste must then complete and sign Part II of the Form UIC-28.
3. The generator of the waste shall retain the “Generator Copy No. 1” (green) for his files. All other copies accompany the E and P waste shipment to the disposal facility or transfer station.

B. Transporter and Disposal Facility

1. Upon delivery to The Facility, Defiance-assigned personnel will measure for percent solids and perform required testing prior to accepting any load E and P waste as required by LDNR regulations. Upon completion of the tests (pH, Chloride, and Conductivity), Defiance will document the results on the UIC-28 and sign Part III of the manifest.
2. The transporter shall retain “Transporter’s Copy” (pink) for his files.

C. Disposal Facility and Generator

1. Upon the completion of the manifest, The Facility will mail the “Generator Copy No. 2” to the generator.

D. Disposal Facility Records

1. The original manifest for each load received at The Facility will be stored in a secure area. An accurate system of filing of these manifests will be provided for review during inspections or audits.
2. The manifests for the current months and prior months are to be kept at The Facility.

3. These original manifests are kept at The Facility for a period of three (3) years.

E. Disposal Facility and Office of Conservation

1. A monthly report of E and P waste receipts will be completed on Form UIC-19, "Commercial Facility Monthly Report of Waste Receipts" and UIC-19A "Commercial Facility Monthly Summation of Waste Receipts". These reports will be submitted within 15 days after the end of each month to the following address:

Office of Conservation  
Environmental Division  
P. O. Box 94275  
Baton Rouge, LA 70804-9275

2. Out-of-state movement of E and P waste requires the same manifest system as within the State of Louisiana.

DNR's website currently shows a UIC-19A

F. Refusal to Accept Unauthorized Waste

It is forbidden to accept E and P waste without a properly completed manifest form in accordance with LAC 43:XIX.545.A. The Facility will not accept E&P waste without a properly completed manifest form in accordance with LAC 43:XIX.545.A as discussed above. Should The Facility refuse to accept a load of unauthorized waste (not meeting the definition of E and P waste); the Office of Conservation shall be notified immediately by electronic submission (facsimile) with the following data:

1. A completed Form UIC-26 "Waste Refusal Notification".
2. The manifest that accompanied the shipment of unauthorized waste.
3. The generator and transporter will be identified in these facsimile transmissions.

**5. The Facility's Acceptance, Storage, and Disposal Procedures for Waste Delivered from a Generator with an Operator's Code.**

The following is a description for accepting the approved "Types" of Waste at The Facility:

- A. A Defiance employee trained in unloading procedures will witness the entry of the waste into The Facility. This trained employee will supervise the waste entering The Facility Monday through Sunday. Defiance trained employee(s)

will also witness, accept, and process the entry of waste into The Facility. To limit unauthorized access, The Facility has a locked gate at the entrance and a six (6) foot chain link fence surrounding the permitted commercial facility. E and P waste is received by truck 24-hours daily. A trained employee of Defiance will be at The Facility during the hours of operation to monitor facility operations and injection/pumping of E and P waste.

Defiance only intends to receive E&P Waste liquids for disposal via deep well injection

- B. Each load of salt water or liquids delivered to the facility will be measured for percent solids and analyzed for the following parameters by an on-duty trained employee of Defiance:
1. Chloride Content
  2. Electrical Conductivity
  3. pH

All analysis will be conducted in accordance with “Laboratory Procedures for Analysis of Exploration & Production Waste” provided by the Office of Conservation, Environmental Division.

- C. The results of the testing procedure are recorded on the Form UIC-28 prior to unloading each load of waste.
- D. An eight ounce sample of each load is collected, dated, and labeled with the manifest number and operator identification. The sample will be kept on site for thirty 30 days. The collected samples are stored in a separate area with minimum exposure to individuals at The Facility.
- E. Test results are kept on file for a period of three years for future review by the Commissioner or his representative.
- F. A load of approved “Types” of waste enters The Facility through a security gate and is directed to a 75' X 40' concrete slab to prepare for the unloading procedures. A sign at the entrance mandates that truck engines will be turned off upon entry and parking on the unloading pad to prevent any accumulation of fumes under the covered unloading area. LEL alarms installed at the unloading pad are set to go off if dangerous levels of fumes accumulate and facility personnel will additionally be equipped with personal H<sub>2</sub>S meters to alert for hazardous conditions. If the LEL alarms or personal H<sub>2</sub>S alarms go off while unloading, unloading operations will be immediately shut down and personnel on the unloading pad will proceed immediately upwind from the unloading pad until hazardous fumes are no longer a threat. All personnel at The Facility will be accounted for and will stage in a safe area, until it is deemed safe to return The Facility to normal operation. Investigation into the cause of

the event will be discussed and a cause determined to prevent repeats of potential safety threats in the future. Facility personnel will make sure that the truck engines remain off until the tank truck is ready to pull out of the unloading area after unloading. The concrete unloading pad is bermed on four sides with 6-in. roll over berms to prevent any offsite releases. The unloading pad is slightly sloped towards an integrated concrete sump equipped with a float actuated sump pump to prevent the accumulation of any fluids on the unloading pad. Any fluids from the sump are sent to the tanks in the containment to be ultimately disposed of in the disposal well. After taking a sample of the tank truck's contents, a 4-in. flexible hose is connected to the tail end of the tank truck to allow the contents to be pumped by centrifugal pumps through screen baskets to a manifold where it is directed through two (2) 700-barrel fiberglass settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel fiberglass tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then be transferred via centrifuge pumps to the two (2) fiberglass 1,000 gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel fiberglass suction tanks prior to being disposed of in the approved injection well. Fluid from the two (2) 750-barrel suction tanks are then transferred by one of three (3) triplex pumps to the one (1) approved SWD well. Flow meters installed at the approved SWD well will record volumes disposed. The entire system is contained by a 49-in. steel repairable sealed/lined containment wall and repairable sealed/lined floor that is slightly sloped towards the west end of the tank containment area, towards integrated collection sumps to contain and collect any storm water, spills, or leaks. The 49-in. high steel wall will be constructed of 12 gauge steel panels (ASTM A653 SS, Grade 55) that are 8-ft. in length and are connected by overlapping 1-ft. of the panels on each end to ensure the panel joints are adequately sealed. The panels are secured to and supported by posts (H 8.25' x D 2.5", 8 gauge ASTM A653 SS, Grade 55), the panels will be bolted (7/16", SAE J429 Grade 8.2) with gaskets to the posts, and each post will be set on 56.25-ft. centers and set 2.5-ft. deep into the ground in concrete to help support the tank containment integrity in case it becomes full. A civil engineer will be consulted with to ensure adequate ground/soil strength to reinforce the in-ground posts used in the containment system. The metal panels will not be buried below ground, instead they will be sprayed with 40 mils of repairable polyurea on each side of the panel. The panels will then be sealed/lined against the floor by attaching a chemical/abrasion resistant polyurea sprayed 12 oz. repairable geotextile liner (60 mils thick) at 2-ft. above the wall base and then encapsulating the walls again with another 40 mils of repairable polyurea to integrate the geotextile liner and completely seal the containment. Polyurea is formed by reaction of diisocyanates and diamines, and it is one of the toughest synthetic polymer

materials. Polyurea sealants are high strength with tensile strength over 5,000 psi and tear strength higher than 500 lbs/in, 100% solid with no volatile organic compounds (VOC), provides rust protection, chemical resistance, abrasion resistance, environmental resistance, water tight capabilities, and is repairable. The geotextile liner will be integrated into the polyurea sealant, will be installed over the soil, will have the sumps integrated into the liner/sealant, and will cover the entire containment floor. With this design no fluid will be able to drain under the geotextile liner. (<https://www.gantrade.com/blog/fast-setting-polyurea-spray-coatings>). The polyurea sealants that will be used in the construction of this facility are Chemline 6900 PT A Neutral and Chemline 6900 PT B Tan, the MSDS sheets are attached. The Containment System will be installed, maintained, and repaired to the manufacturer's specifications. The integrity of the concrete unloading containment area and the repairable steel sealed/lined containment wall, and the repairable sealed/lined floor will be visually inspected once every hour on a daily basis for any cracks, tears, or problems which might compromise proper containment and for any evidence of unauthorized discharge. See attached Letter of Engineering certifying that this containment system is capable of maintaining integrity and holding all tankage in case of a catastrophic release. In accordance with the attached Letter of Engineering, the waste handled at this facility will not exceed the maximum allowable fluid density of 69 lb/cu. ft.

Once the oil in the 400-barrel steel oil tanks is deemed in condition to be sold, an approved transporter will be notified to pick up the oil. When the transporter arrives on-site he will be directed to the oil load out unloading area on the south side of the containment wall by a trained Defiance Employee, a sample of the oil will be collected and the water percentage will be determined. If the oil is deemed acceptable, the driver will gauge the tank to determine the volume of oil in the tank. The oil will be transferred from the two (2) 400-barrel oil tanks to the load out line. The load out line has a polypropylene containment around the unloading valve to prevent any spills during the unloading process. The driver will then connect the suction hose to the loading valve in the polypropylene containment. The loading valve will be opened, the tank valve will be opened and the valve at the truck will be opened with the vacuum pump running. The driver will monitor the truck compartment with the site gauge and the tank the driver is pulling from with the gauge line. The onsite personnel for Defiance will be monitoring all activities and assisting the driver. Once the tanker is near capacity the driver will slow the vacuum pump down reducing the vacuum being pulled to move oil. The tank valve will be closed then the loading valve in the polyethylene container will be closed. The valve at the truck will be closed and disconnected. A five (5) gallon bucket will be placed beneath the hose and truck connection. The hose will then be disconnected at the loading valve in the polypropylene containment. Any spilled product in the five (5) gallon bucket or the polypropylene containment at the loading valve will be returned to the oil storage tank. Absorbent pads will be in place to

absorb any minor amounts of oil that may be spilled. Fresh water connections are provided at the unloading pad and four sides of the containment to rinse off the containment floors and keep them clean. All tanks will be closed top tanks, vented past the containment perimeter. The integrity of the concrete unloading containment area and the steel, sealed/lined containment wall will be visually inspected on a daily basis for any cracks or problems which might compromise proper containment and for any evidence of unauthorized discharge.

- G. Any spillage during the unloading procedure is contained on the concrete slab as a result of the 6-in. drive over berms around four sides of the unloading pad. Any spilled fluid flows from the slightly sloping unloading pad towards an integrated, seamless concrete sump with an automated sump pump. Any accumulating fluid is immediately pumped by an automated sump pump to the inlet manifold at The Facility where the sump fluids are commingled with other approved E and P waste. The sump is integrated concrete within the unloading area and the 6-in. concrete curb containment. The storage tanks at The Facility are enclosed by a 205' x 105' sealed/lined floor surrounded by a 49-in. high steel, sealed/lined containment wall that is integrated into the sealed/lined floor, having a spill containment capacity of approximately 15,654 barrels within containment. The floor of the tank containment area is sloped slightly towards the integrated sealed lined sumps at the west end of the tank containment area to collect any rainwater or spilled E and P waste liquids. Liquids collected in the sumps are pumped to the inlet manifold and commingle with other approved E and P waste. The concrete unloading pad will be constructed of seamless concrete and the entire tank battery system is contained by a 49-in. steel repairable sealed/lined containment wall and repairable sealed/lined floor that is slightly sloped towards the west end of the tank containment area, towards integrated collection sumps to contain and collect any storm water, spills, or leaks. The 49-in. high steel wall will be constructed of 12 gauge steel panels (ASTM A653 SS, Grade 55) that are 8-ft. in length and are connected by overlapping 1-ft. of the panels on each end to ensure the panel joints are adequately sealed. The panels are secured to and supported by posts (H 8.25' x D 2.5", 8 gauge ASTM A653 SS, Grade 55), the panels will be bolted (7/16", SAE J429 Grade 8.2) with gaskets to the posts, and each post will be set on 56.25-ft. centers and set 2.5-ft. deep into the ground in concrete to help support the tank containment integrity in case it becomes full. A civil engineer will be consulted with to ensure adequate ground/soil strength to reinforce the in-ground posts used in the containment system. The metal panels will not be buried below ground, instead they will be sprayed with 40 mils of repairable polyurea on each side of the panel. The panels will then be sealed/lined against the floor by attaching a chemical/abrasion resistant polyurea sprayed 12 oz. repairable geotextile liner (60 mils thick) at 2-ft. above the wall base and then encapsulating the walls again with another 40 mils of repairable polyurea to integrate the geotextile liner and completely seal the containment. Polyurea is

formed by reaction of diisocyanates and diamines, and it is one of the toughest synthetic polymer materials. Polyurea sealants are high strength with tensile strength over 5,000 psi and tear strength higher than 500 lbs/in, 100% solid with no volatile organic compounds (VOC), provides rust protection, chemical resistance, abrasion resistance, environmental resistance, water tight capabilities, and is repairable. The geotextile liner will be integrated into the polyurea sealant, will be installed over the soil, will have the sumps integrated into the liner/sealant, and will cover the entire containment floor. With this design no fluid will be able to drain under the geotextile liner. <https://www.gantrade.com/blog/fast-setting-polyurea-spray-coatings>). The polyurea sealants that will be used in the construction of this facility are Chemline 6900 PT A Neutral and Chemline 6900 PT B Tan, the MSDS sheets are attached. The Containment System will be installed, maintained, and repaired to the manufacturer's specifications. The integrity of the concrete unloading containment area and the repairable steel sealed/lined containment wall, and the repairable sealed/lined floor will be visually inspected once every hour on a daily basis for any cracks, tears, or problems which might compromise proper containment and for any evidence of unauthorized discharge. See attached Letter of Engineering certifying that this containment system is capable of maintaining integrity and holding all tankage in case of a catastrophic release. In accordance with the attached Letter of Engineering, the waste handled at this facility will not exceed the maximum allowable fluid density of 69 lb/cu. ft.

- H. The collection manifold feeds approved liquid E&P wastes to the two (2) initial 700 barrel settling tanks, then through a series of 2 rows of four (8 total) settling tanks and then to two (2) 1000-barrel gun barrels provide for initial and final separation of hydrocarbons, which gravity feeds to two (2) 400-barrel oil stock tanks. The saltwater from the initial 700 barrel settling and separation tank(s) gravity feed to eight (8) 1000 barrel fiberglass saltwater tanks for additional separation of hydrocarbons and settling of solids prior to being sent via a centrifuge pump through a screen basket to two (2) 750 barrel suction tanks for final separation of solids and removal of fines prior to being pumped via triplex pump to the approved disposal well, which is equipped with a volume meter to record injection volumes at the well.
1. The oil stock tanks will be constructed of welded steel. The gun barrel tanks will be constructed of fiberglass. The settling tanks will be constructed of fiberglass. All tanks will be totally enclosed. There will be no open-roof tanks. All tanks will be vented to the atmosphere. The vents will extend beyond the containment.
  2. Defiance anticipates having to clean some of the tanks to remove solids twice per year and estimates no more than twenty (20) cubic yards of solids will be removed from

each tank cleaning event. Residual solids are periodically removed from settling in the saltwater tanks and will be removed and placed in a lined steel roll-off container temporarily located at a location that will not impede site operation but will provide for efficient access for sampling of the contents and its subsequent disposal. Residual solids from the rinse-out operations will also be collected in the temporary roll-off as they accumulate around the sump area. The sump area of the unloading pad will be kept rinsed clean of hydrocarbons and solids. Any spills that might take place during tank cleaning operations will remain contained within the confines of the tank containment. Any spills in the tank containment and/or bermed unloading pad will be cleaned up immediately, so as not to accumulate. As soon as a roll-off container is filled, it will be removed. Solids will not be stored any longer than is necessary to clean the tanks, containment or to remove a load. These solids will be sampled and profiled for disposal at an approved facility. The solids generated are anticipated to be less than 0.1 percent of the total throughput handled at The Facility. The solids will be transported by an authorized transporter to an approved facility.

There will be no hazardous chemicals at the site to generate air emissions. There may be situations where minor or insignificant amounts of chemicals, such as biocide, corrosion & scale inhibitors, and oxygen scavengers may be required to maintain injection flowline, tanks and equipment for optimal injection and lower workover and remediation shut-downs, and/or to treat steel piping for prevention of corrosion. Any chemical evaluated for use will be tested for compatibility with current operations at the site, and, if utilized, will be properly stored within the containment area of The Facility in closed drums or poly containers and labeled at the site according to State and Federal regulations. These chemicals, if used, will be brought to the site only on an as needed basis. These drums or tanks will remain closed until product is required; will be of small enough quantities and for short, limited time periods so as to not generate air emissions. The estimated amount of chemicals that might be required on a daily basis would be approximately 12 gallons of Scale Inhibitor/Surfactant, 7 gallons of Oxygen Scavenger, and/or 6 gallons of Iron Sulfide Chelator. This amounts to less than one percent of the daily throughput at The Facility and will be added in a closed loop system. There will be no discharge of contact storm water at this facility.

- I. The waste is then pumped through buried steel injection lines, through a meter and down hole into the approved Edwards SWD well.
- J. A trained employee of Defiance will be at The Facility during operating hours to monitor facility operations and injection/pumping of E and P waste. All areas of the injection facility will be inspected on a daily basis for potential problems, leaks and/or maintenance issues.

#### **6. Accepting, Storing, and Disposal Procedures for Waste Delivered from a Generator Without an Operator's Code**

The following is a description for accepting approved "Types" of E and P waste at this facility from a company that does not possess an Office of Conservation Operator Code Number:

- A. The Form UIC-23 – “Request to Transport and Dispose of E and P Waste at a Commercial Disposal Facility” (In Lieu of Generator Code Number) is completed in detail.
  - B. Prior approval of Form UIC-23 is required by the Department of Conservation and must accompany the E and P Waste Shipping Control Ticket (Manifest) to The Facility for disposal.
  - C. The submittal of the completed Form UIC-23 will be the responsibility of the waste generator.
- 7. The Defiance Water Disposal Commercial Facility Contingency Plan for Any Type of Spill, Leak, or Release**

The following is the Contingency Plan for this facility if any type of spill, leak, or release or other unauthorized discharge would occur inside and/or outside of containment:

- A. Defiance’s trained personnel will take immediate action to minimize the impact of any spill, leak, or release, or hazardous fumes. Immediate actions may include but not be limited to:
  - 1. Close valves that will reduce the flow of the waste.
  - 2. Place absorbent materials, booms or construct a levee around the waste to contain the spill.
  - 3. If any spills occur within the confines of the tank containment or bermed unloading pad, the solids will be shoveled into an appropriate container for removal and the liquids will be rinsed towards the sump, where it can be reprocessed through the process flow. No contaminants will be allowed to accumulate within the tank containment or bermed unloading pad.
  - 4. Make required notifications to Federal, State, and Local agencies, as required. In accordance with LAC 43:XIX.535.E any noncompliance shall be reported to the commissioner.
  - 5. Once contained, use vacuum trucks to remove the waste.
  - 6. Hire additional contractor equipment to assist containing and clean-up of the spill.
  - 7. Recovered material will be sent back through the process flow or returned to an appropriate tank on the site.
  - 8. The Facility is designed to prevent spills from escaping any of the containment areas. Absorbent materials will be available on site to contain and collect any spills

that might occur outside of the containment areas. Any spills that may result in E and P waste being spilled on the natural ground will be cleaned up by containing the limits of the spill. This would be accomplished by placing absorbent materials, boom, berm, or constructing a temporary levee around the waste to contain it and take action to reduce and stop the source of the spill as soon as practical. Liquid wastes contained within the contained area will be removed and sent back through the treatment system. Contaminated soil will be loaded to a depth and area void of contamination and in the event of a relatively small spill into a roll off, manifested, and transported to a facility permitted to accept such waste. In the event of a large spill, a remediation plan acceptable to the regulatory authority with jurisdiction for such a spill will be submitted for approval. Reporting of any spills will follow all Louisiana Department of Natural Resources and Louisiana Department of Environmental Quality regulations.

8. In the event of an alarm indicating the presence of hazardous fumes; operations will cease immediately if personnel are able to safely get to the shut-down switches, valves, etc. and they will immediately proceed downwind from the point of alarm to a safe staging area to further assess the situation and take appropriate steps to assess and/or correct the cause of the alarm. All personnel on site will be accounted for and proceed to a safe staging area until it is deemed safe to return The Facility to normal operation. An investigation into the cause of the event will be discussed and a cause determined, to prevent repeats of potential safety threats in the future.

**B. Spill Notification Contact List:**

National Response Center	(800) 424-8802
Louisiana Hazardous Materials Hotline (Notify within one hour of oil spill)	(877) 925-6595)
State Police Troop G – Bossier City, LA	(318) 741-7411 (866) 853-6580
Red River Parish Sheriff’s Office	(318) 932-4221
EPA Region 6	(800) 887-6063
Louisiana EPA Office	(504) 342-1234
Red River Parish wide Fire District	(318) 932-6676 (318) 932-6674
Red River Parish Emergency Planning Committee Contact: Shane Hubbard, Chair	(318) 932-8502
Louisiana State Office of Conservation (Main)	(225) 342-8244

District Manager  
Contact: Mr. Jackie DeVall (318) 676-7585

Environmental Division  
Contact: Gary Snellgrove, Director (225) 342-7222

Field Inspector  
Contact: Mr. Pete Bradford (318) 518-2677

Injection and Mining Division  
Contact: Mr. Stephen Lee, Director (225) 342-5569

Louisiana Department of Environmental Quality (225) 342-1234

Defiance Energy Services, LLC Contacts:  
*Defiance, Mr. Scott Wooten, CFO (318) 377-5755*

*Mr. Charlie Reynolds, Geologist (318) 687-3771*

The Spill Notification Contact List will be posted in the main office of The Facility.

Use the attached Spill Notification Form to fill in the details of the incident. All the blanks do not have to be filled in before you start your notification.

**C. Notification of surrounding landowners or inhabitants that will be directly or indirectly affected by the release.**

1. Edwards, Jason Davis (Parcel # 700031378)  
715 South Ridge Dr.  
Minden, LA 71055
2. Timberstar Louisiana I LP C/O Hancock Forest Management (Parcel # 700031376)  
8570 Business Park Dr. STE #200  
Shreveport, LA 71105
3. Bienville Timberlands Co., LP C/O Hancock Forest Management (Parcel # 700031376B)  
8570 Business Park Dr. STE #200  
Shreveport, LA 71105
4. Edith R. Foster C/O Tye Stephen Adams (Parcel # 700009000)  
2739 Hwy 515  
Coushatta, LA 71019
5. Elizabeth Full Gospel Baptist Church (Parcel # 7700000151)  
P.O. Box 1275  
Coushatta, LA 71019
6. Johnson Construction Co., Inc (Parcel # 700013990)  
60 Southgate Dr.  
Bossier City, LA 71112
7. Rosalie C. Jackson (Parcel # 700008750)  
312 Lancashire Dr.  
Bossier City, LA 71111
8. Freddie M. Stafford Nelson (Parcel # 700030250)  
P.O. Box 672  
Coushatta, LA 71019
9. Walter Johnson Jr. C/O Lula Evans (Parcel # 700014300)  
7029 Hwy 371  
Coushatta, LA 71019

D. Any liquids recovered or generated from a release will be pumped into the inlet manifold of the treatment system for processing. A manifest will be completed documenting the volumes. Any solids generated from a release will be sampled and analyzed for certain constituents to meet the specifications for acceptance at an approved landfill. The solids will be placed in an enclosed steel roll-off until the E and P waste can be profiled for disposal. The roll-off container will be

located at The Facility at a location that will not impede site operation but will provide for efficient access for sampling of the contents and its subsequent disposal, so that the sumps can be kept clean of solids and for cleaning tank bottoms from aboveground storage tanks. A waste profile will be completed for any such solids placed in the roll-off container and submitted to the landfill, land treatment facility or other permitted facility, which is authorized by the Louisiana Department of Environmental Quality or the Office of Conservation to accept E and P waste. An authorized transporter will transport the E and P waste with a manifest to the approved facility. Documentation of the roll-off loads and any remediation activities will be kept on site at The Facility.

### 1. Monitoring Procedures and Scheduled Maintenance Plan

The annulus pressure of the proposed Class II Salt water disposal well is equipped with pressure gauges on the wellhead that have half-inch fittings, scaled in increments of not more than 10 psi, and maintained in good working order will be monitored daily and will have a minimum of 100 psig positive pressure at all times, except during approved workover operations. The pressure changes in the annulus portion of the well will be affected by temperature. As the injection piping is utilized the temperature will affect the closed annulus of all salt water disposal well. Although the annulus pressure may fluctuate with temperature the mechanical integrity of the well remains intact. Similar gauges at the wellhead will indicate injection pressure on the injection string at the surface.

- A. The volume of waste injected into the well is metered by a tamper-proof volume recorder at the wellhead. This meter will be calibrated at least once a year.
- B. The Form UIC-21 – “Daily Monitoring Log” is completed daily with information from the well and mailed to the Department of Natural Resources, Environmental Division by the fifteenth (15th) day of the following month. Additional copies of the completed Form UIC-21 will be kept on file at The Facility. The observed annulus pressure, observed injection rate, the observed injection pressure and/or shut-in pressure, note if injection is on-going at the time of the observation, recorder initials and time of reading and any comments will be recorded on the Daily Monitor Log.
- C. The pipeline/connections/valves leading to the injection well will be inspected daily for leaks.
- D. The integrity of the concrete unloading containment area and the repairable steel sealed/lined containment wall, and the repairable sealed/lined floor will be visually inspected once every hour on a daily basis for any cracks, tears, or problems which might compromise proper containment and for any evidence of unauthorized discharge.

- E. Any leaks or any discrepancies in the mechanical integrity of the disposal well or piping will be reported within twenty-four (24) hours to the Office of Conservation, Environmental Division.
- F. All equipment at The Facility is on a repair or maintenance program. A visual inspection of all equipment, tanks, valves and piping is performed daily. A periodic maintenance program is performed in conjunction with the cleanout of the solids that build up in the storage tanks.
- G. A trained employee of Defiance will be at The Facility during the hours of operation to monitor facility operations and injection/pumping of E and P waste.
- H. LEL Sensors and Alarms will be tested on a monthly basis in accordance with the manufacturer's recommendations to ensure they are functioning properly. The sensors and alarms will be installed downwind of the loading connections considering the prevailing wind (southern), and suspended from the ceiling of the loading area.

## 2. Community Relations Plan

Defiance has an "open door" policy when interfacing with the public.

- A. Defiance values its reputation with the community and supported community involvement projects.
- B. Defiance is prepared to readily respond to any concerns the community may have about operations at The Facility.
- C. Defiance will educate any individual that has questions concerning techniques, safety, operations, or any part of the disposal process at The Facility.
- D. Prior notification in writing is required by the individual seeking this information. Approval must be issued by a Defiance Manager to allow this individual from the community to enter The Facility. Anyone entering The Facility must have the proper Personal Protection Equipment (PPE).

## 3. Facility Security Plan

The Defiance Facility Security Plan contains the following:

- A. To prevent unauthorized access, The Facility has a lockable gate at the entrance and a 6-ft. chain link fence around the permitted portion of The Facility. The roads to the well will be restricted with locked steel constructed gates.

- B. A trained employee of Defiance will be at The Facility during the hours of operation to monitor facility operations and injection/pumping of E and P waste. Gates will be locked at any time the facility is unmanned for any reason.

#### 4. The Facility's Environmental, Health and Safety Plan

Defiance is committed to protecting the environment as well as the health and safety of its employees and the surrounding community.

- A. Spill response will be adhered to as specified in the Contingency Plan for Any Type of Spill, Leak, or Release Section of this Waste Management Operations Plan.
- B. Stored samples will be placed in a separate area where exposure to individuals is minimal as specified in the Accepting, Storing, and Disposal Procedures for Waste Delivered from a Generator with an Operator's Code section of this Waste Management Operations Plan.
- C. The storage tank valves, piping, containment areas and equipment will be routinely inspected and kept in good working order as to prevent any adverse incident from occurring at The Facility. This schedule of maintenance is noted in the Monitoring Procedures and Scheduled Maintenance Plan Section of this Waste Management Operations Plan.
- D. Warning signs such as "No Smoking Area" and "Flammable Materials" will be posted around The Facility reminding drivers to shut off their engines upon entering and parking on the unloading pad. Signs will also be posted instructing drivers to chock wheels before loading/unloading. Construction of all electrical connections at The Facility will be made of explosion proof materials. Hydrocarbons or other volatile materials will not be allowed to accumulate anywhere at The Facility other than in the appropriate skim oil tanks where they are collected and periodically sold. Monitoring for hazardous fumes at The Facility will be accomplished via LEL meters/alarms at the unloading area and personal hazardous gas monitors worn by facility personnel.
- E. A trained employee of Defiance will be at The Facility during the hours of operation to monitor facility operations and injection/pumping of E and P waste. Facility personnel will make daily inspections of all above ground valves, pumps, piping and condition of the unloading and tank containment areas for cracks, leaks, and other defects. If any indication of a release is found, facility personnel will deploy appropriate Emergency Response Procedures as stated in this application.
- F. Employees at this facility will be monitored and tested for potential exposure to hazardous vapors annually.

- G. Parish Road Permit requirements have been and will continue to be met for the roads traveled in the parishes Defiance will serve. If the Facility is approved to construct, additional Parish Road Permits will be obtained for any additional roads Defiance might utilize. Defiance is required to obtain Red River Parish Permits for their trucks utilizing parish roads. Defiance currently holds two (2) Red River Parish road access permits (Permit No. 11328 and 11329). Additional Red River Parish road access permits will be applied for and will be submitted to LDNR upon receipt. When necessary, Defiance will add and/or renew the Red River Parish Road Permits. Other Parishes anticipated to be traveled in (Bienville) do require road permits for this activity and have been applied for by Defiance. Should additional parishes be traveled in, Defiance will meet the parish road permit requirements, as applicable.
- H. Should transporters other than Defiance transport E & P waste to the proposed facility, prior to accepting the E & P waste, training will be provided regarding transportation, such as acceptable routes, bridge postings, parish road permit requirements, weight limits, and school zones.

#### **5. The Facility's Containment Installation, Inspection, Maintenance, and Repair Plan.**

- A. A statement from a company that manufactures these types of facilities is attached certifying that this 105' x 205' x 49" containment system is capable of maintaining integrity and holding all tankage in case of a catastrophic release. See attached Letter of Engineering.
- B. The containment system will be installed per the manufactures and civil engineers specifications.
- C. The containment system will be maintained and repaired according to the manufactures specifications.
- D. Inspection of the containment area, the repairable steel sealed/lined containment wall, and the repairable sealed/lined floor will go above and beyond the manufactures recommended inspection specifications, as they will be visually inspected once every hour on a daily basis for any cracks, tears, or problems which might compromise proper containment and for any evidence of unauthorized discharge.

July 6, 2020

## Letter of Engineering

Subject: 49 Inch Tall Secondary Containment Structure

Chief Industries 49 inch tall containment system is structurally designed based on the following assumptions:

System Configuration: Rectangular

Wall Panel Height:	49 inch (33 inch lower, 16 inch upper)
Post Spacing:	56.25 inch
Fluid Density:	62.4 lb/cu ft, allowable up to 69 lb/cu ft

Configuration Specific Parameters:

Length:	205 ft
Width:	105 ft
Total Capacity of Tanks in System:	13,700 BBL
Total Capacity of System:	15,654 BBL

Structural Components

Wall Panel:	12 gage – ASTM A653 SS, Grade 55
Post:	Z 8.250 x 2.5 – 8 Gage – ASTM A653 SS, Grade 55
Bolts:	7/16 in SAE J429 Grade 8.2

This letter covers the design above. It does not cover any specific location. Chief Industries secondary containment systems have had no reported failures. In the event of a catastrophic failure, in which case the contents of all tanks were to leak into the secondary containment system, Chief Industries asserts the system will not fail to contain all tank contents, provided the system has been installed properly. For systems with in-ground posts, Chief Industries does not assert the ground/soil strength in which the system is installed will be sufficient in any case, and recommends the end user consult a civil engineer to ensure adequate ground/soil strength to reinforce the system.

Regards,

*Stan J. Bovee* PE-6371  
*State of Nebraska*

611 Willow Street  
Grand Island, NE 68801 USA  
Phone: (308) 381-0585  
Toll Free: (800) 259-5303  
Fax: (308) 389-6733  
Web: [environmentalproducts.chiefind.com](http://environmentalproducts.chiefind.com)  
E-Mail: [environmentalproducts@chiefind.com](mailto:environmentalproducts@chiefind.com)

## CHEMLINE 6900 PT A NEUTRAL

## PRODUCT AND COMPANY IDENTIFICATION

**Supplier Details:** Chemline Incorporated  
5151 Natural Bridge Road  
Saint Louis, MO 63115

**Phone:** 314-664-2230  
**Fax:** 314-664-1355  
**Web:** www.chemline.net  
**Emergency:** CHEMTREC 800-424-9300 (24 HOUR SERVICE)

## HAZARDS IDENTIFICATION

## Classification of the Substance or Mixture

## GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Acute toxicity, 5 Oral  
Health, Skin corrosion/irritation, 2  
Health, Respiratory or skin sensitization, 1 Skin  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Health, Respiratory or skin sensitization, 1 Respiratory  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Carcinogenicity, 2

## GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:



## GHS Hazard Statements:

H303 - May be harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H336 - May cause drowsiness or dizziness  
H351 - Suspected of causing cancer

## GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P284 - Wear respiratory protection.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor/physician.

## Hazards not Otherwise Classified (HNOC) or not Covered by GHS

**Route of Entry:** Eyes; Ingestion; Inhalation; Skin;**Target Organs:** Respiratory system; Skin; Eyes;

**Inhalation:** At room temperature, MDI vapors are minimal due to low vapor pressure. However, heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations may generate vapor or aerosol concentrations sufficient to cause irritation or other adverse effects. Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. Severe overexposure may lead to pulmonary edema. May cause respiratory sensitization

with asthma-like symptoms in susceptible individuals. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, dryness of throat, headache, nausea, difficult breathing and a feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilator capacity) has been associated with overexposure to isocyanates

Chronic: As a result of previous repeated overexposures or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) or tissue injury in the upper respiratory tract. Animal tests indicate skin contact alone may also lead to allergic respiratory reaction. These effects may be permanent. Any person developing asthmatic reaction or other sensitization should be removed from further exposure

**Skin Contact:** Isocyanates react with skin protein and moisture and can cause irritation which may include reddening, swelling, rash, scaling, or blistering. Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis, and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization, but is not expected to result in absorption of amounts sufficient to cause other adverse effects. May stain skin. Cured material is difficult to remove.

**Eye Contact:** As a liquid, aerosol, vapor or dust, may cause irritation, inflammation, and/or damage to sensitive eye tissue. Symptoms include watering, reddening, swelling or discomfort of the eyes. Corneal injury is possible if untreated.

**Ingestion:** Single dose oral toxicity is considered to be extremely low. Can result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. Symptoms may include sore throat, abdominal pain, nausea, vomiting and diarrhea.

### COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients:		
CAS#	%	Chemical Name:
101-68-8	35-55%	4,4'-Methylenediphenyl diisocyanate
5873-54-1	5-25%	Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-
150449-03-9	0-3%	1,3-Butanediol, polymer with 1,1'-methylenebis[isocyanatobenzene], [(1-methyl-1,2-ethanediy)bis(oxy)]bis[propanol] and 1,2-propanediol

### FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

**Skin Contact:** Wash off in flowing warm water or shower with soap. Remove and wash contaminated clothing and discard contaminated shoes. For severe exposure, get under safety shower after removing clothing, then seek medical attention. If redness, itching or a burning sensation develops or persists after the area is washed, consult a physician.

**Eye Contact:** Flush with large amounts of water for 15 minutes. Materials containing MDI may react with the moisture in the eye forming a thick material that is difficult to remove. Get immediate medical attention.

**Ingestion:** Do not induce vomiting or give liquids unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.

### FIRE FIGHTING MEASURES

**Flammability:** OSHA - none; DOT - none

**Flash Point:** >250°F

**Flash Point Method:** COC

**Burning Rate:** N/A

**Autoignition Temp:** NDA

**LEL:** N/A

**UEL:** N/A

Use dry chemical, foam, carbon dioxide, or water for large fires. The reaction between water and hot isocyanate may be vigorous. If possible, contain fire run-off water.

**Protective Equipment:** Wear positive-pressure self-contained breathing apparatus with full face mask and full protective clothing.

**Unusual Hazards:** At temperatures greater than 400°F, polymeric MDI can polymerize and decompose which will cause pressure build-up in closed containers. Explosive rupture is possible. Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may rupture the containers. Downwind personnel must be evacuated.

**Fire Degradation Products:** Isocyanate vapor and mist, carbon dioxide, carbon monoxide, nitrogen oxides and traces of hydrogen cyanide.

## ACCIDENTAL RELEASE MEASURES

**Spill:** Evacuate and isolate spill area. Use preventive measures to keep spill from entering water system. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to metal waste containers. Move container to a well ventilated area (outside), but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal. Close, but do not seal, the containers. Decontaminate or discard all clean-up equipment.

**NOTE:** ISOCYANATES WILL REACT WITH WATER AND GENERATE CARBON DIOXIDE. THIS COULD RESULT IN THE RUPTURE OF ANY CLOSED CONTAINERS.

**Clean up:** The area should then be flushed with a decontamination solution. The decontamination solution is a 5-10% mixture of sodium carbonate and 0.5% liquid detergent in water solution or a 3-8% concentrated ammonium hydroxide and 0.5% liquid detergent in water. Use 10 parts decontamination solution to 1 part spilled material. If the ammonium hydroxide solution is used, ammonia will be evolved as a vapor. Use caution to avoid exposure to high concentrations of ammonia. Allow to stand for 48 hours letting evolved carbon dioxide to escape.

## HANDLING AND STORAGE

### Handling Precautions:

**Handling:** Use personal protective equipment when transferring material to or from drums, totes or other containers. The reaction of polyols and isocyanates generates heat. Contact of the reacting materials with skin or eyes can cause irritation and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty of water and seek medical attention. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters, or other ignition sources near pouring, frothing or spraying operations.

**Special Emphasis for Spray Applications:** Inspect the application area from the potential to expose other persons or for overspray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside could be exposed to polyisocyanates due to wind conditions, open windows or air intakes. Do not begin application work until these potential problems have been corrected.

### Storage Requirements:

**Storage:** When stored between 15° and 30°C (60° and 85°F) in a dry location in sealed containers, typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. Opened containers must be handled properly to prevent moisture pickup. If contamination is suspected, do not reseal container.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Controls:

MDI has a low vapor pressure at room temperature. Monitoring is required to determine engineering controls. Uses requiring heating and/or spraying may require more aggressive engineering controls or PPE. Existing local ventilation should be adequate under normal conditions.

### Personal Protective Equipment:

4,4'-Methylenediphenyl diisocyanate cas#:(101-68-8) [35-55%]

Personal protective equipment

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under

appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

4,4'-Methylenediphenyl diisocyanate cas#:(101-68-8) [35-55%]

Components with workplace control parameters

TWA 0.0050 ppm USA. ACGIH Threshold Limit Values (TLV)  
Respiratory sensitization

C 0.02 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -  
0.2 mg/m3 1910.1000

C 0.02 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1  
0.2 mg/m3 Limits for Air Contaminants

The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples.

TWA 0.0050 ppm USA. NIOSH Recommended Exposure Limits  
0.05 mg/m3  
10 minute ceiling value

C 0.2 ppm USA. NIOSH Recommended Exposure Limits  
0.2 mg/m3  
10 minute ceiling value

## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Non-pigmented liquid.	<b>Odor:</b>	Mild
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	N/A
<b>Spec Grav./Density:</b>	9.07 lbs/gal	<b>Solubility:</b>	REACTS with water, not soluble - soluble in most organic solvents
<b>Boiling Point:</b>	>350°F	<b>Percent Volatile:</b>	0
<b>Flammability:</b>	None	<b>Freezing/Melting Pt.:</b>	not available
<b>Evap. Rate:</b>	<1	<b>Flash Point:</b>	>250°F
		<b>Vapor Density:</b>	>1
		<b>Auto-ignition Temp:</b>	NDA

## STABILITY AND REACTIVITY

**Chemical Stability:** Stability: Polyisocyanates are highly reactive chemicals and should be handled and stored in a way to avoid exposure to many common substances, including water and moisture. Material is stable when stored in sealed containers under normal conditions. Avoid temperatures over 400°F.  
Reactivity: Reacts with water, acids, bases, alcohols, metal compounds. The reaction with water is very slow under 120°F (50°C), but is accelerated at higher temperatures and in the

presence of alkalis, tertiary amines and metal compounds. Some reactions can be vigorous or even violent.

**Conditions to Avoid:** Moisture and/or water. High temperatures, sparks, flame and extended exposure over 110°F (45°C).

**Materials to Avoid:** Water; amines; acids; strong bases; alcohols; metal compounds;

**Hazardous Decomposition:** Carbon dioxide; carbon monoxide; oxides of nitrogen, traces of HCN, MDI vapors or aerosols. Excess gas may rupture containers.

**Hazardous Polymerization:** May occur with incompatible reactants especially strong bases, water or temperatures over 400°F. Possible evolution of carbon dioxide gas from overheating or exposure to contaminants may rupture closed containers.

	<b>TOXICOLOGICAL INFORMATION</b>
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4,4'-Methylenediphenyl diisocyanate cas#:(101-68-8) [35-55%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 4,700 mg/kg

Inhalation LC50 Dermal LD50 no data available

Other information on acute toxicity

Skin corrosion/irritation: Serious eye damage/eye irritation:

Eyes - rabbit - Moderate eye irritation

Respiratory or skin sensitization: no data available

May cause allergic respiratory and skin reactions

Germ cell mutagenicity: Laboratory experiments have shown mutagenic effects.

Genotoxicity in vitro - Human - lymphocyte Sister chromatid exchange

Genotoxicity in vivo - rat - Inhalation DNA damage

Carcinogenicity:

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diphenylmethane-4,4- diisocyanate)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Reproductive toxicity - rat - Inhalation:

Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.

no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be fatal if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: Cough, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.

Synergistic effects: no data available

Additional Information:

RTECS: NQ9350000

<b>ECOLOGICAL INFORMATION</b>
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4,4'-Methylenediphenyl diisocyanate cas#:(101-68-8) [35-55%]

Information on ecological effects

Toxicity:

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 0.35 mg/l - 24 h.  
and other aquatic invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: Do not empty into drains.

no data available

<b>DISPOSAL CONSIDERATIONS</b>
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Dispose of in accordance with local regulations. Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. Do not allow material to enter sewers, a body of water, or contact the ground. Refer to RCRA 40 CFR 261, and/or any other appropriate federal, state or local requirements for proper classification information.

<b>TRANSPORT INFORMATION</b>
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Non DOT/RCRA regulated

<b>REGULATORY INFORMATION</b>
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[%] RQ (CAS#) Substance - Reg Codes

[35-55%] RQ(5000LBS), 4,4'-Methylenediphenyl diisocyanate (101-68-8) CERCLA, HAP, IARC, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

[5-25%] Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- (5873-54-1) TSCA

[0-3%] 1,3-Butanediol, polymer with 1,1'-methylenebis[isocyanatobenzene], [(1-methyl-1,2-ethanediyl)bis(oxy)]bis[propanol] and 1,2-propanediol (150449-03-9) TSCA

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

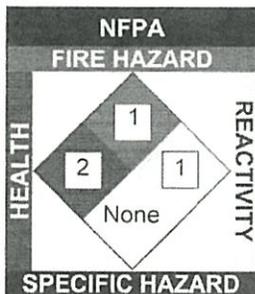
**Regulatory Code Legend**

RQ = Reportable Quantity

CERCLA = Superfund clean up substance  
 HAP = Hazardous Air Pollutants  
 IARC = IARC Carcinogen Risks  
 MASS = MA Massachusetts Hazardous Substances List  
 NJHS = NJ Right-to-Know Hazardous Substances  
 OSHAWAC = OSHA Workplace Air Contaminants  
 PA = PA Right-To-Know List of Hazardous Substances  
 SARA313 = SARA 313 Title III Toxic Chemicals  
 TSCA = Toxic Substances Control Act  
 TXAIR = TX Air Contaminants with Health Effects Screening Level

<b>OTHER INFORMATION</b>
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**NFPA:** Health = 2, Fire = 1, Reactivity = 1, Specific Hazard = None  
**HMIS III:** Health = 2, Fire = 1, Physical Hazard = 1  
**HMIS PPE:** X - Consult your supervisor for special instructions



HMIS	
HEALTH	■ 2
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Revision Date: 5/14/2019

## CHEMLINE 6900 PT B TAN

## PRODUCT AND COMPANY IDENTIFICATION

**Supplier Details:** Chemline Incorporated  
5151 Natural Bridge Road  
Saint Louis, MO 63115

**Phone:** 314-664-2230  
**Fax:** 314-664-1355  
**Web:** www.chemline.net  
**Emergency:** CHEMTREC 800-424-9300 (24 HOUR SERVICE)

## HAZARDS IDENTIFICATION

## Classification of the Substance or Mixture

## GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Acute toxicity, 4 Oral  
Health, Acute toxicity, 5 Oral  
Health, Acute toxicity, 5 Dermal  
Health, Skin corrosion/irritation, 1 C  
Health, Skin corrosion/irritation, 2  
Health, Serious Eye Damage/Eye Irritation, 1  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Specific target organ toxicity - Repeated exposure, 2  
Environmental, Hazards to the aquatic environment - Acute, 1  
Environmental, Hazards to the aquatic environment - Acute, 3  
Environmental, Hazards to the aquatic environment - Chronic, 1

## GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:



## GHS Hazard Statements:

H302 - Harmful if swallowed  
H303 - May be harmful if swallowed  
H313 - May be harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H373 - May cause damage to organs through prolonged or repeated exposure  
H400 - Very toxic to aquatic life  
H402 - Harmful to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

## GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands and skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER/ doctor/...if you feel unwell.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 - Immediately call a POISON CENTER or doctor/ physician.  
 P314 - Get medical advice/attention if you feel unwell.  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P337 + P313 - If eye irritation persists: Get medical advice/attention.  
 P363 - Wash contaminated clothing before reuse.  
 P391 - Collect spillage.  
 P501 - Dispose of contents/container properly

**Hazards not Otherwise Classified (HNOC) or not Covered by GHS**

**Route of Entry:** Eyes; Ingestion; Inhalation; Skin;  
**Target Organs:** Eyes; Skin; Respiratory system;  
**Inhalation:** Heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. May cause sneezing and slight irritation of nose, throat and lungs.  
**Skin Contact:** Prolonged or repeated exposure can cause skin irritation or dermatitis in some individuals.  
**Eye Contact:** May cause watering of the eye and irritation of the conjunctiva.  
**Ingestion:** May cause nausea or vomiting.

**COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Ingredients:		
CAS#	%	Chemical Name:
9046-10-0	55-84%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-
68479-98-1	5-25%	Benzenediamine, ar,ar-diethyl-ar-methyl-
13621-30-5	0-20%	Aspartic Ester
13463-67-7	0-5%	Titanium dioxide

**FIRST AID MEASURES**

**Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.  
**Skin Contact:** Wash skin with large quantities of water and soap. Wash clothing before reuse. Seek medical attention if redness, itching or a burning sensation develops or persists after the area is washed.  
**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes. Use fingers to assure that the eyelids are separated and that the eye is being irrigated. Consult a physician.  
**Ingestion:** Bring to the attention of a physician. Never give anything by mouth to an unconscious person.

**FIRE FIGHTING MEASURES**

**Flammability:** OSHA - none; DOT - none  
**Flash Point:** >250°F  
**Flash Point Method:** COC  
**Autoignition Temp:** NDA

Use dry chemical, foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water. Wear positive-pressure self-contained breathing apparatus with full face-piece and full protective clothing should be worn by fire-fighters. Combustion may produce carbon dioxide, carbon monoxide, and nitrogen oxides.

**ACCIDENTAL RELEASE MEASURES**

**Spill:** Remove all sources of flames, heating elements, gas engines, etc. Emergency clean-up personnel should wear chemical goggles, rubber or plastic gloves and clothing as required to protect against contact. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such contamination should occur.

**Clean up:** With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. Ventilate area to remove the remaining vapors.

## HANDLING AND STORAGE

- Handling Precautions:** Handling: Avoid skin and eye contact. Use personal protective equipment when transferring material to or from drums, totes or other containers. If contamination with isocyanates is suspected, do not reseal containers. Do not smoke or use naked lights, open flames, space heaters, or other ignition sources near pouring, frothing or spraying operations  
Special Emphasis for Spray Applications of Mixed Products Containing Isocyanates: Inspect the application area for the potential to expose other persons or for overspray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside could be exposed to polyisocyanates due to wind conditions, open windows or air intakes. Do not begin application work until these potential problems have been corrected.
- Storage Requirements:** Storage: When stored between 15° and 30°C (60° and 85°F) in sealed containers, typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Opened containers must be handled properly to prevent moisture pickup.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Uses requiring heating and/or spraying may require more aggressive engineering controls or PPE. An eyewash station and safety shower or other drenching facilities are recommended in the work area.
- Personal Protective Equipment:** Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [55-84%]
- Personal protective equipment
- Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) Splash contact data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
- Eye protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin and body protection: Complete suit protecting against chemicals, The type of protective

equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [55-84%]

## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Pigmented liquid.	<b>Odor:</b>	Mild
<b>Physical State:</b>	Liquid	<b>Solubility:</b>	Not soluble in water.
<b>Spec Grav./Density:</b>	8.58 lb/gallon	<b>Percent Volatile:</b>	<1%
<b>Boiling Point:</b>	NDA	<b>Flash Point:</b>	>200°F
<b>Flammability:</b>	None	<b>Vapor Density:</b>	>1
<b>Evap. Rate:</b>	<1	<b>Bulk Density:</b>	9 lbs/gal
		<b>Auto-Ignition Temp:</b>	NDA

## STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Product is stable under normal conditions. Avoid extended exposure over 110°F.
<b>Conditions to Avoid:</b>	High temperatures, sparks, flame and extended exposure over 110°F (45°C).
<b>Materials to Avoid:</b>	isocyanates; Oxidizing materials; acids;
<b>Hazardous Polymerization:</b>	Will not occur.

## TOXICOLOGICAL INFORMATION

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [55-84%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 2,885.3 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 8 h - > 0.74 mg/l

Dermal LD50 LD50 Dermal - rabbit - 2,980 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days. - OECD Test Guideline 404

Serious eye damage/eye irritation: Eyes - rabbit - Corrosive to eyes - OECD Test Guideline 405

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: Animal testing did not show any mutagenic effects

Genotoxicity in vitro - Not mutagenic in Ames Test.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicit

Specific target organ toxicity - single exposure (Globally Harmonized System):  
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):  
no data available  
Aspiration hazar

Potential health effects: Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Synergistic effects: no data available

Additional Informatio

Repeated dose toxicity - rat - Dermal - No observed adverse effect level - 250 mg/kg

Repeated dose toxicity - rat - Oral - No observed adverse effect level - 239 mg/kg RTECS: Not available

## ECOLOGICAL INFORMATION

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [55-84%]

Information on ecological effects

Toxicity:

Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 15 mg/l - 96 h.

static test NOEC - Oncorhynchus mykiss (rainbow trout) - 15 mg/l - 96 h

Toxicity to daphnia static test EC50 - Daphnia - 80 mg/l - 48 h.

and other aquatic Method: OECD Test Guideline 202 invertebrates

NOEC - Daphnia - 18 mg/l - 48 h

Persistence and degradability: Biodegradability Result: 0 % - According to the results of tests of biodegradability this product is not readily biodegradable. Method: OECD Test Guideline 301B

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

## DISPOSAL CONSIDERATIONS

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Do not allow material to enter sewers, a body of water, or contact the ground. Refer to RCRA 40 CFR 261, and/or any other appropriate federal, state or local requirements for proper classification information.

## TRANSPORT INFORMATION

Non DOT/RCRA regulated

## REGULATORY INFORMATION

[%] RQ (CAS#) Substance - Reg Codes

[55-84%] Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- (9046-10-0) TSCA

[5-25%] Benzenediamine, ar,ar-diethyl-ar-methyl- (68479-98-1) TSCA

[0-20%] Aspartic Ester (13621-30-5)

[0-5%] Titanium dioxide (13463-67-7) IARC, MASS, OSHAWAC, PA, TSCA, TXAIR

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

### Regulatory Code Legend

TSCA = Toxic Substances Control Act

IARC = IARC Carcinogen Risks

MASS = MA Massachusetts Hazardous Substances List

OSHA WAC = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TXAIR = TX Air Contaminants with Health Effects Screening Level

## OTHER INFORMATION

**NFPA:** Health = 2, Fire = 1, Reactivity = 0, Specific Hazard = None

**HMIS III:** Health = 2, Fire = 1, Physical Hazard = 0

**HMIS PPE:** X - Consult your supervisor for special instructions



HMIS	
HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Revision Date: 5/14/2019





**OFFICE OF CONSERVATION**  
**ENVIRONMENTAL DIVISION**

**Mailing Address:** DNR, Office of Conservation, Environmental Division, P.O. Box 94275, Baton Rouge, LA 70804-9275  
**E-Mail:** [Environmental-Div@la.gov](mailto:Environmental-Div@la.gov)  
**Fax:** 225-242-3505

WASTE RECEIVED FOR THE MONTH OF \_\_\_\_\_, 20\_\_\_\_

# UIC-19A

## COMMERCIAL FACILITY MONTHLY SUMMATION OF WASTE RECEIPTS

This form is to be completed and returned to the Environmental Division at the email address, fax number, or mailing address listed above no later than the 15th day of the following month.

<b>Facility Name:</b>	<b>Site Code:</b>
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<b>Facility Address:</b>	<b>Phone #:</b>
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**Summation of Monthly Report of Waste Receipts**

E&P Waste Type	Waste Type Description	Total Amount (bbls)	Commercial Waste Disposal Fee	Fee Due
01	Produced Salt Water	0	0.00	\$ 0.00
02	Oil Base Mud & Cuttings	0	0.02	\$ 0.00
03	Water Base Mud & Cuttings	0	0.02	\$ 0.00
04	Completion Fluids	0	0.02	\$ 0.00
05	Production Pit Sludges	0	0.02	\$ 0.00
06	Storage Tank Sludges	0	0.02	\$ 0.00
07	Produced Sands & Solids	0	0.02	\$ 0.00
08	Produced Fresh Water	0	0.02	\$ 0.00
09	Ring Levee Rainwater	0	0.02	\$ 0.00
10	Washout Water	0	0.02	\$ 0.00
11	Washout Pit Water	0	0.02	\$ 0.00
12	Gas Plant Waste Solids	0	0.02	\$ 0.00
14	Pipeline Test Water	0	0.02	\$ 0.00
15	Commercial Facility Waste	0	0.02	\$ 0.00
16	Spill Clean Up Waste	0	0.02	\$ 0.00
50	Salvagable Hydrocarbons	0	0.00	\$ 0.00
99	Other E&P Waste	0	0.02	\$ 0.00

**TOTALS**

<b>TOTAL WASTE RECEIVED</b>	0
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*(all Waste Types)*

<b>TOTAL BILLABLE WASTE RECEIVED</b>	0	<b>TOTAL FEE DUE</b>	\$ 0.50
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*(Excludes Waste Types 01 & 50)*

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and all attachments and that, based on my personal knowledge or inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I further acknowledge and agree that by typing my name or placing my mark in the signature space on this document it is my intention to electronically sign the document. Further, the electronic signature shall be considered as an original signature for all purposes and shall have the same force and effect as an original signature. Without limitation, "electronic signature" shall include faxed versions of an original signature or electronically scanned and transmitted versions (e.g., via pdf) of an original signature.*

Disposer Authorized Representative: \_\_\_\_\_ (Please Print Name) Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Submit**

**Form UIC-19 and Form UIC-19A INSTRUCTIONS**  
(LAC 43:XIX.545.K)

- 1) Approved Exploration & Production Waste Commercial Facilities, Transfer Stations and DEQ permitted facilities are required to submit a monthly report of Exploration and Production (E&P) Waste receipts on Form UIC-19 and Form UIC-19A. The Office of Conservation must receive the certified completed form(s) within fifteen (15) days of the end of each month. The form(s) can be downloaded at the following web link <http://www.dnr.louisiana.gov/index.cfm/page/1378> or by the following web pathway **www.dnr.louisiana.gov >> Conservation >> Forms >> Environmental Division** for completion and submittal via fax, mail, or electronic form email submittal. No other versions of this form will be accepted. For an email submittal confirmation receipt, turn on the read receipt option upon submittal and the Conservation office recipient will check the appropriate box for notification.
- 2) In order to complete the electronic form(s), you must have Adobe Reader installed on your computer. Note: The web link above has a link to install Adobe Reader. After Adobe Reader is installed on your computer, download and save the form(s) UIC 19/19A to your computer. Use the forms that are saved to your computer in Adobe Reader for completion and submittal. DO NOT use the form(s) in your web browser for completion and submittal.
- 3) Provide the month, year, facility name, facility address, phone number, and site code on both UIC-19 and UIC-19A.
- 4) All waste received is to be recorded by operator code, operator name, waste type, and amount (in bbls) on Form UIC-19. If this list fits onto one, standard page, the UIC-19 *Short Form* is to be used. If more than one standard page is needed for listing all waste received, the UIC-19 *Long Form* is to be used. Pages are not to be added to the short form.
- 5) All waste type total amounts and fees to be collected must be summarized on Form UIC-19A.
  - i. Act No. 277 of the 2016 Louisiana Legislative Regular Session enacted on May 27, 2016 and effective on August 1, 2016 amends LRS 30:21.B.1 to replace certain fees and establish a new monthly fee payable to the Office of Conservation of two (2) cents per barrel of E&P waste delivered (not including E&P waste types 1 and 50) and as reported on a form prescribed by the department to collect commercial facility monthly report of waste receipts.
- 6) An authorized representative must sign/certify and date the form(s). The original form(s) and signature are required to be submitted if the form(s) must be mailed. The electronic form email or fax submittal(s) is required to be signed electronically by typing your name in the signature blank.
- 7) If submitting the form(s) electronically, it is recommended to save the completed form(s) prior to clicking the submit button on the bottom of the form. Once the submit button is clicked, the form(s) will be locked and no longer editable. Note: If you save the form(s) after it is locked, your saved copy will be locked as well.



**OFFICE OF CONSERVATION  
ENVIRONMENTAL DIVISION**

Mailing Address: DNR, Office of Conservation, Environmental Division, P.O. Box 94275, Baton Rouge, LA 70804-9275

E-Mail: [Environmental-Div@la.gov](mailto:Environmental-Div@la.gov)

Fax: 225-242-3505

FOR THE MONTH OF \_\_\_\_\_, 20\_\_\_\_

# UIC-21

## Commercial Class II Injection Well Daily Monitor Log

This form is to be completed and returned to the Environmental Division at the email address, fax number, or mailing address listed above no later than the 15th day of the following month.

DISPOSER'S NAME AND SITE LOCATION				SITE CODE		
WELL NAME AND NO.		SERIAL NO.		OBSERVED MAX PRESSURE		MASIP
VOLUME RECORDER READING FOR CURRENT MONTH BBLs		VOLUME RECORDER READING FOR PREVIOUS MONTH BBLs		VOLUME RECORDER TOTAL MONTHLY INJECTED BBLs		
DAY	OBSERVED ANNULUS PRESSURE (PSI)	OBSERVED INJECTION RATE (GPM)	OBSERVED INJECTION PRESSURE (PSI)	INJECTING AT TIME OF READING?	RECORDER INITIALS & TIME OF READING	COMMENTS
1				YES <input type="checkbox"/> NO <input type="checkbox"/>		
2				YES <input type="checkbox"/> NO <input type="checkbox"/>		
3				YES <input type="checkbox"/> NO <input type="checkbox"/>		
4				YES <input type="checkbox"/> NO <input type="checkbox"/>		
5				YES <input type="checkbox"/> NO <input type="checkbox"/>		
6				YES <input type="checkbox"/> NO <input type="checkbox"/>		
7				YES <input type="checkbox"/> NO <input type="checkbox"/>		
8				YES <input type="checkbox"/> NO <input type="checkbox"/>		
9				YES <input type="checkbox"/> NO <input type="checkbox"/>		
10				YES <input type="checkbox"/> NO <input type="checkbox"/>		
11				YES <input type="checkbox"/> NO <input type="checkbox"/>		
12				YES <input type="checkbox"/> NO <input type="checkbox"/>		
13				YES <input type="checkbox"/> NO <input type="checkbox"/>		
14				YES <input type="checkbox"/> NO <input type="checkbox"/>		
15				YES <input type="checkbox"/> NO <input type="checkbox"/>		
16				YES <input type="checkbox"/> NO <input type="checkbox"/>		
17				YES <input type="checkbox"/> NO <input type="checkbox"/>		
18				YES <input type="checkbox"/> NO <input type="checkbox"/>		
19				YES <input type="checkbox"/> NO <input type="checkbox"/>		
20				YES <input type="checkbox"/> NO <input type="checkbox"/>		
21				YES <input type="checkbox"/> NO <input type="checkbox"/>		
22				YES <input type="checkbox"/> NO <input type="checkbox"/>		
23				YES <input type="checkbox"/> NO <input type="checkbox"/>		
24				YES <input type="checkbox"/> NO <input type="checkbox"/>		
25				YES <input type="checkbox"/> NO <input type="checkbox"/>		
26				YES <input type="checkbox"/> NO <input type="checkbox"/>		
27				YES <input type="checkbox"/> NO <input type="checkbox"/>		
28				YES <input type="checkbox"/> NO <input type="checkbox"/>		
29				YES <input type="checkbox"/> NO <input type="checkbox"/>		
30				YES <input type="checkbox"/> NO <input type="checkbox"/>		
31				YES <input type="checkbox"/> NO <input type="checkbox"/>		

\*Take volume recorder reading on last day of each month

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and all attachments and that, based on my personal knowledge or inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I further acknowledge and agree that by typing my name or placing my mark in the signature space on this document it is my intention to electronically sign the document. Further, the electronic signature shall be considered as an original signature for all purposes and shall have the same force and effect as an original signature. Without limitation, "electronic signature" shall include faxed versions of an original signature or electronically scanned and transmitted versions (e.g., via pdf) of an original signature.*

Disposer Authorized Representative: \_\_\_\_\_  
(Please Print Name)

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Submit**

**Form UIC-21 INSTRUCTIONS**  
(LAC 43:XIX.539.D)

- 1) A daily pressure monitoring log shall be maintained on-site. Observed daily readings shall be recorded on Form UIC-21. The certified completed form must be received by the Office of Conservation within fifteen (15) days of the end of each month. The form can be downloaded at the following web link: <http://www.dnr.louisiana.gov/index.cfm/page/1378> or by the following web pathway: **www.dnr.louisiana.gov >> Conservation >> Forms >> Environmental Division** for completion and submittal via fax, mail, or electronic form email submittal. No other versions of this form will be accepted. For an email submittal confirmation receipt, turn on the read receipt option upon submittal and the Conservation office recipient will check the appropriate box for notification.
- 2) In order to complete the electronic form, you must have Adobe Reader installed on your computer. Note: The web link above has a link to install Adobe Reader. After Adobe Reader is installed on your computer, download and save the form UIC 21 to your computer. Use the forms that are saved to your computer in Adobe Reader for completion and submittal. DO NOT use the form(s) in your web browser for completion and submittal.
- 3) Provide the month, year, disposer's name, disposer's address, Site Code, well name, well number, and serial number.
- 4) For each day of the month, record the observed annulus and injection pressures in pounds per square inch (psi) and the observed injection rate in gallons per minute (gpm) if injecting at the time the readings are taken. If not injecting at the time the readings are taken, record the observed annulus and shut-in pressures (psi). If the well is receiving waste fluids on a vacuum at the time the readings are taken, record the observed annulus pressure (psi), place a "0" in the observed injection pressure space, note in the comments section that the well is on vacuum and record the injection rate (gpm).
- 5) Indicate if injecting at the time readings are taken by checking the "yes" or "no" boxes.
- 6) The recorder must initialize each line entry and provide the time the daily readings were taken.
- 7) Use the comment section to further explain special situations when necessary, e.g., well workovers, etc.
- 8) Record the monthly observed maximum injection pressure / shut-in pressure (psi) recorded on the form.
- 9) Record the approved maximum allowable surface injection pressure (MASIP) assigned by the Office of Conservation.
- 10) Record the injection volume recorder reading (bbls) for current month (volume recorder reading observed on the last day of the month), the injection volume recorder reading (bbls) for previous month, and the total volume of waste injected (bbls) for the month. If the volume recorder rolled over during the reporting month, record the roll over number in the comments section on the date it rolled over.
- 11) An authorized representative must sign/certify and date the form(s). The original form(s) and signature are required to be submitted if the form(s) must be mailed. The electronic form email or fax submittal(s) is required to be signed electronically by typing your name in the signature blank.

12) If submitting the form via email using the electronic form email version, it is recommended to save the completed form prior to clicking the submit button on the bottom of the form. Once the submit button is clicked, the form will be locked and no longer editable. Note: If you save the form after it is locked, your saved copy will be locked as well.

**Note: Any discrepancies in the monitored pressures, which would indicate a lack of mechanical integrity and constitute noncompliance with the requirements of LAC 43:XIX.Subpart 1, shall be reported to the Office of Conservation within 24 hours.**



## UIC-26 Waste Refusal Notification

**Mail to:** DNR, Office of Conservation, Environmental Division  
P.O. Box 94275, Baton Rouge, LA 70804-9275

**Overnight to:** DNR, Office of Conservation, Environmental Division  
617 North 3<sup>rd</sup> Street, Baton Rouge, LA 70802

**Fax to:** 225-242-3505

Date: \_\_\_\_\_

Commercial Facility Name: \_\_\_\_\_ Site Code: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone Number: \_\_\_\_\_ / \_\_\_\_\_

Manifest # of Refused Load: \_\_\_\_\_ Waste Type: \_\_\_\_\_

Description of Waste: \_\_\_\_\_

Origination of Waste: \_\_\_\_\_

Name of Generator: \_\_\_\_\_ Generator Code: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone Number: \_\_\_\_\_ / \_\_\_\_\_

Name of Transporter: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone Number: \_\_\_\_\_ / \_\_\_\_\_

Truck & Trailer License No.: \_\_\_\_\_ or

Barge & Tug ID.: \_\_\_\_\_

Reason for Refusal:

- Manifest Not Properly Completed
- Generator Does Not Have a Generator Code Number
- pH  $\leq$  2.0
- pH  $\geq$  12.5
- NORM Reading: \_\_\_\_\_ microR/hr
- Other \_\_\_\_\_

This completed form and the manifest of the refused load must be faxed immediately to the Office of Conservation, Environmental Division at 225-242-3505.

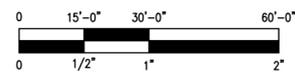
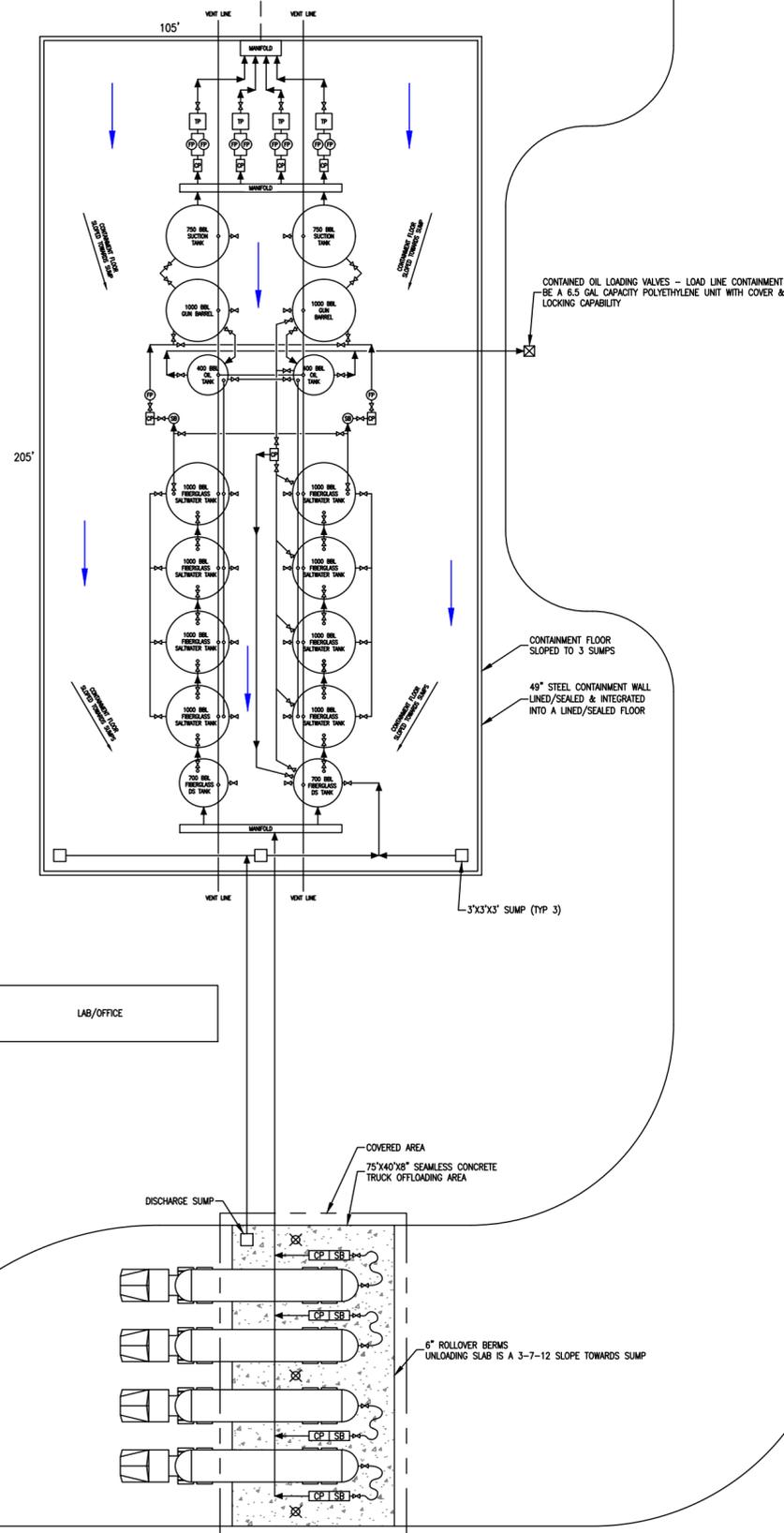
*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and all attachments and that, based on my personal knowledge or inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

Disposer Authorized Representative: \_\_\_\_\_ Title: \_\_\_\_\_

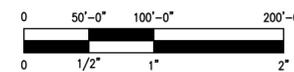
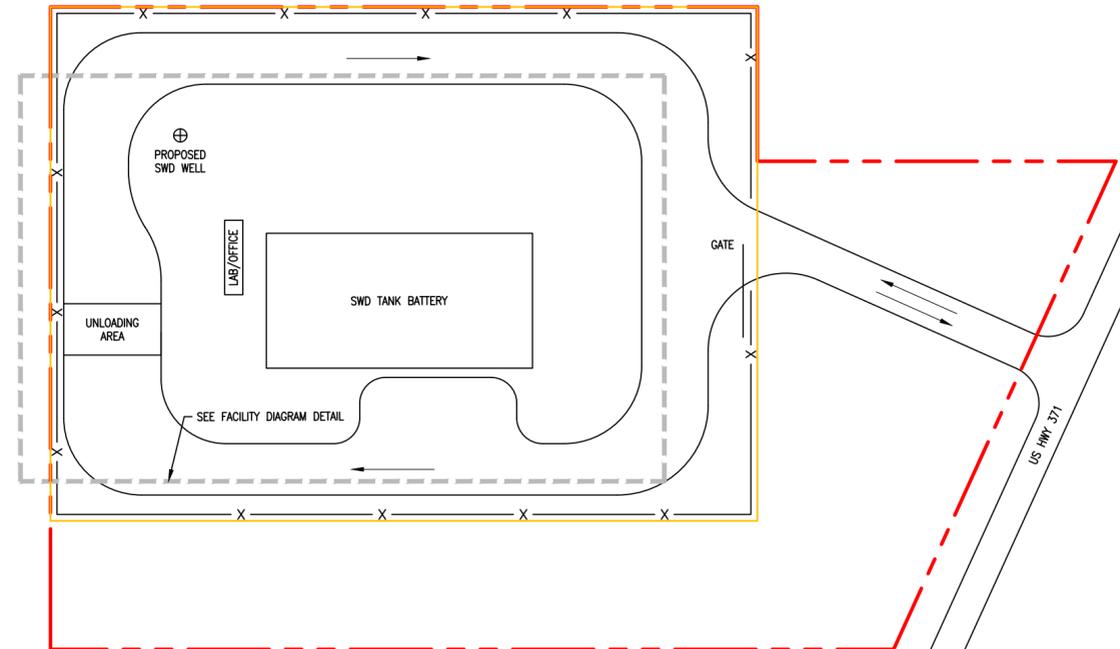
Signature: \_\_\_\_\_ Date: \_\_\_\_\_



FACILITY DIAGRAM DETAIL



FACILITY DIAGRAM



LEGEND	
	PROPERTY BOUNDARY
	PERMITTED BOUNDARY
	6' CHAIN LINK FENCE
	UNDERGROUND FLOWLINE
	DRAINAGE DIRECTION
	CENTRIFUGAL PUMP
	TRIPLEX PUMP
	CONCRETE
	LEL MONITOR

TITLE	
ATTACHMENT 3 FACILITY DIAGRAM	

PROJECT NO.	SCALE	LOCATION
SA03994	AS SHOWN	
PAGE	DRAWN BY	
1	JKW	
SHEET	REVISED DATE	
C - 17" X 22"	07/08/20	

DEFIANCE ENERGY SERVICES, LLC. PROPOSED COMMERCIAL SWD FACILITY SECTION 20 T13N R5W RED RIVER PARISH, LOUISIANA	