

EMERGENCY RESPONSE PLAN

**DRAFT April 29, 2020 for submittal with Board
Applications
and attachment to Stormwater Plan
This plan to be finalized before station opens for
retail**

A.L. Prime Energy Retail Motor Fuel Facility

23 Central Street
Byfield, Massachusetts 01922

Site Contact:

TBD, Station Manager
Bassil Zaza, Operations Area Manager

**Prepared
DRAFT April 29, 2020**

(a copy of this document to be kept at the location)

All employees working at this station must read this plan.
This plan should be presented to municipal, state or federal inspectors upon
request.

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1. General Information

1.1. Overview and Purpose - This plan is prepared to provide a written plan of emergency response procedures for the A.L. Prime facility at 23 Central Street in Byfield Massachusetts. This facility is proposed to store and sell petroleum products that are a fire hazard and that can also potentially contaminate water resources not only on the property itself but also those in the immediate area of the facility. It is important that the persons who work at and operate the facility understand the importance of maintaining the spill prevention and leak detection systems and keep the facility in compliance with all local, state and federal requirements. This plan serves as an outline of those measures installed at the facility and the training required to accomplish these goals.

1.2. Name of Facility – A.L. Prime Energy and **TENANT COFFEE OPN**

1.3. Type of Facility – Retail Gasoline, Convenience Store, Coffee Shop w/ Drive-Thru

1.4. Location of Facility – 23 Central Street
Byfield, Mass 01922
Tax Assessor Parcel ID: R-20-0-28
Zoned Highway Business (abutting Residential)

1.5. Property Owner – **(under agreement)** A.L. Prime Energy, Inc.

1.6. Operator – A.L. Prime Energy

1.7. Designated Contact for Spill Prevention –

Bassil Zaza, Manager
Station phone – 781-246-3605
Cell phone – 617-212-3553

Nasser Abu-Eid, Vice President
Office phone – 781-246-0201
Fax – 781-246-9971
Cell phone – 617-212-3551

2. Description of Facility

2.1. The facility consists of a typical gas station with three underground motor fuel storage tanks, six self-service motor fuel-dispensing islands, and a convenience store with a food operation tenant that operates a drive-thru window. The site consists of approximately 42,891 square feet. A plan of the location is attached.

- 2.2. The developed front half portion of the facility is sloped primarily to the south towards Central Street, the rear half slopes north. There are two catch-basins on site and one in the driveway. There are no surface water bodies on the site and the site is over 200 feet from any shoreline. There are no wetlands on the site and the site is over 100 feet from any wetland boundary.
- 2.3. The site and surrounding properties are served by municipal water and on-site septic sewer.
- 2.4. The underground storage facility consists of three double wall fiberglass tanks. The tanks contain motor fuel for retail sale to the general public. Fuel is distributed to the self-service fuel dispensers located under a canopy by underground double wall piping. The tanks meet the Massachusetts and Federal requirements for overfill and spill protection and leak monitoring. An electronic monitoring console located in the convenience store monitors the tanks and related piping and equipment. There are shutoffs for dispensing equipment available to the attendants.
- 2.5. Site Security – the site is open to the general public and is not fenced or physically enclosed. Access to the building by the public without authorization is limited to the convenience store retail area and restrooms. The site is adequately illuminated providing for local law enforcement to periodically inspect the facility. Remote CCTV cameras allow monitoring of outside fueling operations by attendant store clerks. All power controls for the facility are located in areas of the store not accessible to the general public. The tanks are located below ground. All dispensing equipment is disabled when the station is not in operation to prevent unauthorized use of the fuel dispensers.

3. Spill Prevention

3.1. Underground Fuel Storage Tanks

- 3.1.1. Each tank is constructed in accordance UL-1316 Standards for underground storage and state and federal requirements for motor fuel storage tanks and meet all the requirements of Massachusetts governing regulations.
- 3.1.2. Each tank is equipped with overfill shutoff and spill containment devices. Delivery drivers are instructed to check remaining tank capacity prior to initiating filling of tanks. The tank monitor sounds an alarm in the building when the tanks approach 90% full capacity. There are shutoff devices in the tank that limit the filling of the tank to 95% of capacity.
- 3.1.3. Venting capacity is suitable for fill and withdrawal rates
- 3.1.4. The power control for the facility is located inside the convenience store in an area not accessible to the general public

- 3.1.5. Each tank is equipped with an electronic tank gauge which reports both contained volume and available ullage (space remaining)
- 3.1.6. No tank is piped to or otherwise connected to any sewer or drain system
- 3.1.7. Each tank is equipped with interstitial leak detection and periodic tank testing conducted automatically by the electronic tank monitor
- 3.1.8. All piping is double wall and monitored by sensors in the piping sumps tied to the tank monitor and by a line leak detector installed at the submersible pump.
- 3.1.9. Each tank fill is marked with API Industry Standard color coded fills and fill box ID inserts to insure proper identification of tank.

3.2. Motor Fuel Dispensing Operation

- 3.2.1. Each dispenser is mounted over a dispenser sump and connected to the underground piping with impact safety valves that shut down product flow if the dispenser is damaged by vehicle collision
- 3.2.2. The dispenser sumps contain sensors that are monitored by the tank monitor.
- 3.2.3. Fuel pump shutoff switches are located near the cash register counter convenient to the attendant.
- 3.2.4. Fuel pumps are protected by steel bumpers to reduce chance of vehicle collision
- 3.2.5. The fueling operation is visible to the station attendant and can also be monitored by the on site closed circuit television system
- 3.2.6. Hoses and nozzles are protected with breakaway tips and double poppet hose breakaway couplings to minimize damage and spills in the event of a drive-off.
- 3.2.7. The perimeter of the dispensing area is outlined with pavement grooves to help detain minor spills for easier cleanup.
- 3.2.8. A safety electrical disconnect is installed to shutoff all power to the submersible fuel pumps in the event that the dispensing area fire suppression system is activated.

3.3. On Site Response Materials

- 3.3.1. Oil absorbent material is stored on site in the back utility room of the convenience store in clearly marked containers.

3.3.2. A designated container is located on the facility to dispose of used response materials.

3.3.3. A response instruction sheet is located near the attendant area for easy access and reference in the event of a spill.

3.4. On Site Stormwater Structures

3.4.1. There are two on-site catch basins and a third catch basin in the west driveway. Four underground infiltration systems are located on the property for canopy and building roof drainage as well as pavement runoff. There is a surface detention basin in the rear along the north property line for that pavement on the sides and rear of the building and another basin in the landscape island between the driveways for the runoff from the easterly driveway.

3.4.2. There are underground Grit and Oil Separators located between the catch basins and underground infiltration systems.

3.4.3. Station personnel will insure that no debris or foreign objects are put into the stormwater structures.

3.4.4. No spills, leaks or hazardous material is to be introduced into the stormwater structures.

4. Potential Spill and Leak Hazards

4.1. All products stored whether in bulk or in packaged form should be considered capable of spilling and causing a reportable spill.

4.2. Since the tanks are located below ground, the primary source of spills is expected to be transfer operations from delivery trucks to the tanks or from the tanks to customer motor vehicles.

4.3. The attached site plan shows the most likely flow path for spills on the site based on the site topography. Surface motor fuel potential spills are expected to flow south towards the two on site catch basins. Response priorities are to first stop the source of the spill, and then stop flow of the spill at the earliest possible point by damming it on the paved surface and reduce the amount of spill that can reach the catch basins or run off site.

4.4. There are perimeter grooves around the dispensing area designed to help in cleanup of minor spills. Recognizing a spill has occurred and absorbing or otherwise collecting it before it migrates off site is the primary response procedure.

- 4.5. See attached Spill Response outline for recommended procedures and reporting phone numbers
- 4.6. Underground tank and piping leaks are the primary source of subsurface leaks. Any leak from a tank or line will affect the groundwater under the site. All monitoring and leak detection equipment must be rigorously maintained in accordance with state requirements and the manufacturer's specifications.
- 4.7. Flushing, draining or otherwise introducing any petroleum into the sanitary drains of the building is strictly prohibited.
- 4.8. Flushing, draining or otherwise introducing any petroleum product into the stormwater catch basins on or off the property is strictly prohibited.
- 4.9. Bulk deliveries are scheduled utilizing information from the automatic tank gauge indicating available tank ullage. Station personnel check with the bulk delivery driver to insure that the intended delivery is what was ordered and will fit into the underground tanks as indicated by available ullage by the tank monitor. Drivers will be requested to verify tank ullage for each tank prior to delivery to that tank to insure the tank will accept the full intended delivery. Should overfill alarm status be indicated by the tank monitor, station personnel will require the driver to stop delivery immediately. Deliveries are typically performed by the in-house company personnel, which reduces the frequency of new personnel or personnel unfamiliar with the site making deliveries.

5. Health Hazards Associated with Potentially Spilled Products

- 5.1. The health hazards associated with petroleum products are well documented. Please refer to Material Data sheets attached to this plan. All employees shall be trained on proper handling procedures, including exposure risk and proper protection apparel.
- 5.2. Spilled product poses a threat to personnel exposed as well as to groundwater, surface water, and soil contamination. Acute exposure may include health hazards as serious as death, particularly for exposed flora (vegetation) and fauna (wildlife).
- 5.3. Material Safety Data Sheets for all the products handled are located in the files at the store and are available for all employees to review at any time by asking the store manager.

6. Training

- 6.1. Training – all personnel using or working in the facility shall be instructed in the following topics:

- 6.1.1. There will be a Class A, B, or C operator on site at all times that the facility is open in accordance with Massachusetts DEP requirements.
- 6.1.2. All tanks shall be checked for remaining capacity prior to starting any filling operation. This can be accomplished either electronically through the tank monitor and tank gauge, or manually by tank stick.
- 6.1.3. All transfer operations shall be monitored continuously. The transport tanker truck driver will remain with the vehicle and oversee the tank filling operation throughout the entire delivery procedure.
- 6.1.4. The strict top management policy that any spill occurring at any place on the property must be cleaned immediately, regardless of size.
- 6.1.5. The location and proper deployment of oil absorbents, pillows, and other spill control materials
- 6.1.6. The reportable spill quantities for the products being handled at the facility.
- 6.1.7. Instructions and phone numbers of persons to call in case of a spill. (See attached list of phone numbers at bottom of emergency response sheet).
- 6.1.8. Procedures to prevent a spill from spreading and reaching catch basins or drain systems; personnel should be aware of how to construct absorbent dams
- 6.1.9. The proper operation of the tank monitor and the meaning of high level, low level, and various sensor alarms.
- 6.1.10. The proper maintenance of tank fill covers and spill containment boxes.
- 6.1.11. Personnel will be trained on delivery procedures and be instructed to observe the bulk delivery procedure to assist the driver in case of any emergency during the delivery. Station personnel will check with driver as to intended delivery products and quantities and insure that it corresponds with the order and with the available space in the underground storage tanks as indicated by the tank monitor ullage.
- 6.1.12. All personnel working at this facility should be familiar with this plan, have read it, and know where copies of it are available to them
- 6.1.13. Written records will be maintained at the facility documenting the training for a period of no less than three years. All persons trained will sign a sheet indicating that they have received this training.

7. Inspection and Record Keeping

- 7.1.1. Documentation of all inspections, testing, training, changes to the facility and spill events as noted throughout this plan and particularly in this section shall be maintained on site and available for inspection by proper regulatory officials.
- 7.1.2. Visual inspections should be made daily of product storage, transfer and dispensing areas.
- 7.1.3. Daily reconciliation of fuel sales, deliveries and volume will be conducted and recorded to insure no unexplained significant product loss.
- 7.1.4. Tank monitoring, spill containment and overfill systems will be inspected at least annually or as required by the Byfield Fire Department or Massachusetts State Fire Marshal or Department of Environmental Protection for proper operation by qualified service personnel. These inspections will include general condition of the equipment, piping joints, sumps and manholes, structure, locking devices, covers and fill pipes, and supports. Copies of the records of these inspections will be maintained on site or electronically off-site but available within 24hrs.
- 7.1.5. In the event of a spill, information should be recorded and maintained on site or at the corporate office available for inspection, for the life of the facility.
- 7.1.6. The site owner or operator shall maintain the underground storage license and registration, and update the tank registration as appropriate and conduct Third Party Inspections as required by MA DFS and DEP regulation.
- 7.1.7. This plan shall be reviewed whenever there is any construction or significant change at the facility to insure that the plan is still applicable or that revisions have been made to accommodate the site construction or changes.

Attachment A

Spill Response Procedures

In the event of a product spill at the facility, the following action should be taken:

- 1) Activate Emergency Dispenser Shut Off
- 2) Call 911 or take any necessary actions to protect the life of persons may be endangered by the spill
- 3) Turn off all vehicle engines, do not attempt to start engines
- 4) Evacuate customers from station
- 5) Contain spillage with absorbent materials, sand, soil, pads, etc. to stop movement of spilled material or dam to contain spill in immediate area. Try to prevent spills from entering any of the site catch basins
- 6) In case of fire, use extinguisher for small fires, or contact fire department 911. Do NOT allow public to fight fire. If fire is at fueling islands and the dry chemical system hasn't automatically released, manually activate the system.
- 7) Notify Store Manager immediately

EMERGENCY PHONE NUMBERS

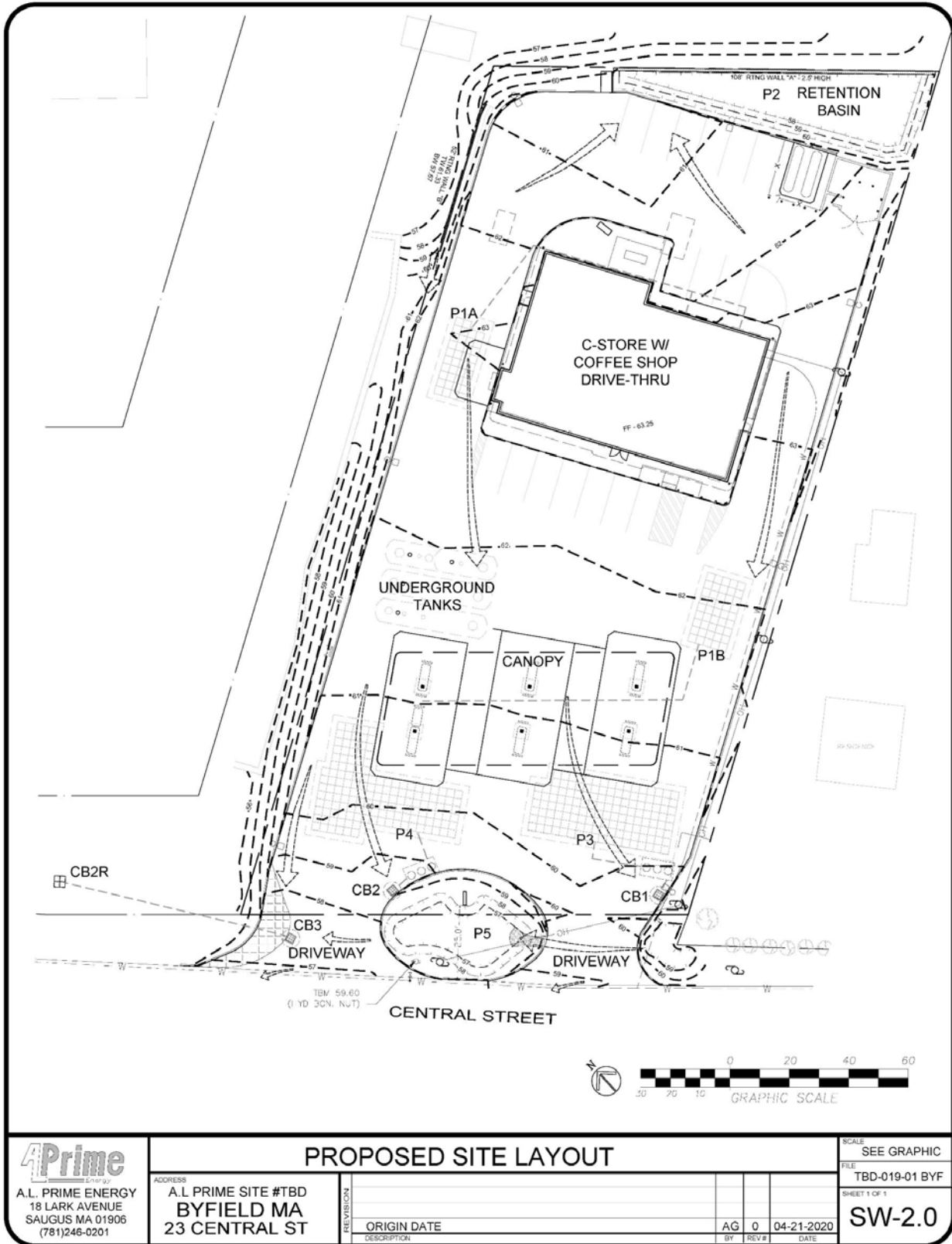
FIRE, POLICE, MEDICAL – 911

Store Manager
Bassil Zaza, Station Manager
Station phone – 781-xxxxxxx
Cell phone – 617-212-3553

Nasser Abu-Eid, Vice President
Office phone – 781-246-0201
Fax – 781-246-9971
Cell phone – 617-212-3551

Attachment B – Plan of Site

A.L. Prime Energy Gas Station – 23 Central St, Byfield Massachusetts

Attachment B
Plan of Site

Attachment C

Attendant Motor Fuel Spill and Overfill Training

(Source Material - EPA Spill and Overfill Publication)

The purpose of spill and overfill protection equipment is to eliminate the potential for a release during fuel deliveries. The equipment must be in working order and used properly to provide adequate protection from spills and overfills.

Even the best spill and overfill protection equipment can become faulty over time if not properly operated and maintained.

Only one gallon of fuel leaking each week from a poorly maintained spill bucket can result in up to 195 tons of contaminated soil in a year.

What's The Difference?

Spill Protection:

A spill bucket is installed at the fill pipe to contain the drips and spills of fuel that can occur when the delivery hose is uncoupled from the fill pipe after delivery.

Overfill Protection:

Equipment is installed on the UST that is designed to stop product flow, reduce product flow, or alert the delivery person during delivery **before** the tank becomes full and begins releasing petroleum into the environment.

Basics Of Spill Protection

Your USTs must have catchment basins — also called spill buckets — installed at the fill pipe to contain spills that may occur as a result of fuel deliveries. The spill bucket is designed to temporarily contain product spills that might occur during fuel delivery. To contain a spill, the spill bucket must be liquid tight.

The spill bucket is not designed to contain fuel for long periods of time and must be quickly emptied and contents disposed of properly.

- ☐ **Keep your spill bucket empty of liquids.**
Keep in mind that any accumulated fuel or water must be removed manually and disposed of properly.
- ☐ **Periodically check your spill bucket to remove any debris.**
Debris could include soil, stones, or trash.

Basics Of Overfill Protection

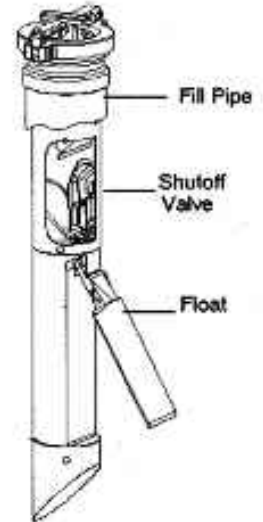
You need to **make sure the amount of product intended for delivery will fit into the tank**. The electronic tank monitor provides an ullage amount for each tank. Ullage is the amount of fuel that the tank has room to fit. The delivery amount should never exceed the indicated ullage.

Your USTs must have **overfill protection** installed to help prevent the overfilling of tanks. All persons working at the station and all delivery personnel should know what type of overfill device is present on each tank at the facility and what action will occur if the overfill device is triggered

— such as a visual and/or audible alarm or that the product flow into the tank will stop or slow significantly.

Three types of overfill protection devices are commonly used. These devices are checked at least annually at each facility during Annual Testing.

Automatic Shutoff Devices – valve in drop tube to automatically shut off flow at a preset maximum volume allowed, normally 95% of the full tank capacity. This is the most common device used at A.L. Prime stations. The automatic shutoff device is a mechanical device installed in line with the drop tube within the fill pipe riser. It slows down and then stops the delivery when the product has reached a certain level in the tank. It should be positioned so that the float arm is not obstructed and can move through its full range of motion.



DELIVERY PERSON — AVOID OVERFILLS

- An **overfill alarm** is used for overfill protection at this facility.
- Do not tamper with this alarm in any attempt to defeat its purpose.
- When the tank is 90% full, the overfill alarm whistles and a red light flashes.
- **If you hear the alarm whistle or see the red light flashing,**

**STOP THE DELIVERY
IMMEDIATELY!**

Overfill Alarms – Strobe light and audible alarm that sounds when the tank reaches a certain volume of product, normally 90%, alerting the person making the delivery that the tank is approaching capacity. The alarm should be located where it can be seen and heard by the delivery driver during the delivery and there should be clear signage near the alarm device to explain what it is similar to graphic on the left.

Ball Float Valves (not allowed on new locations and being phased out by attrition) – these devices restrict venting of the tank so that the driver is alerted to the tank reaching capacity of 90%. These are becoming less common at A.L. Prime facilities.



Spill And Overfill O&M Checklist

Spill Bucket	<ul style="list-style-type: none"> ❑ Keep your spill bucket empty of liquids. Keep in mind that when you pump out or drain your spill bucket into your UST, any water and debris may also enter the UST. If a spill bucket is not equipped with a drain valve or pump, then any accumulated fuel or water must be removed manually and disposed of properly. ❑ Periodically check your spill bucket to remove any debris. Debris could include soil, stones, or trash. ❑ Periodically check to see if your spill bucket is still liquid tight. Have a qualified UST contractor inspect your spill bucket for signs of wear, cracks, or holes. Based on this inspection, the contractor may suggest a test to determine if the spill bucket is tight or needs repair or replacement.
Automatic Shutoff Devices	<ul style="list-style-type: none"> ❑ A qualified UST contractor periodically checks to make sure that the automatic shutoff device is functioning properly and that the device will shut off fuel flowing into the tank at 95% of the tank capacity or before the fittings at the top of the tank are exposed to fuel: <ul style="list-style-type: none"> • Make sure the float operates properly. • Make sure that there are no obstructions in the fill pipe that would keep the floating mechanism from working.
Overfill Alarms	<ul style="list-style-type: none"> ❑ A qualified UST contractor periodically checks your electronic overfill alarm to make sure that it is functioning properly and that the alarm activates when the fuel reaches 90% of the tank capacity or is within one minute of being overfilled: <ul style="list-style-type: none"> • Ensure that the alarm can be heard and/or seen from where the tank is fueled. • Make sure that the electronic device and probe are operating properly. ❑ You have posted signs that the delivery person can easily see and that alert the delivery person to the overfill warning devices and alarms in use at your facility.

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Correct Filling Practices

As an owner or operator you are responsible for ensuring that releases due to spilling or overfilling do not occur during fuel delivery. As part of this responsibility, you must ensure that the amount of product to be delivered will fit into the available empty space in the tank; and that the transfer operation is monitored constantly to prevent overfilling and spilling. One way help ensure the above requirements are met is to follow a checklist like this one.

UST Delivery Checklist

Before Filling USTs	<input type="checkbox"/> Attendant and Driver - Ensure fuel delivery personnel know the type of overfill device present at the tank and what actions to perform if it activates. <input type="checkbox"/> Review and understand the spill response procedures. <input type="checkbox"/> Verify that your spill bucket is empty, clean, and will contain spills.
While USTs Are Being Filled	<input type="checkbox"/> Attendant - Have an accurate tank capacity chart available for the fuel delivery person. <input type="checkbox"/> Driver – confirm proper tank fills and that tanks have room for intended delivery amount <input type="checkbox"/> Driver - make all hook-ups. <input type="checkbox"/> Driver - remain attentive and observe the entire fuel delivery, be prepared to stop the flow of fuel from the truck to the UST at any time, and respond to any unusual condition, leak, or spill which may occur during delivery. <input type="checkbox"/> Attendant – Monitor the delivery process. Have response supplies readily available for use in case a spill or overfill occurs. <input type="checkbox"/> Driver - Provide safety barriers around the fueling zone. <input type="checkbox"/> Attendant - Make sure there is adequate lighting around the fueling zone.
After Filling USTs	<input type="checkbox"/> Driver - responsible for disconnecting all hook-ups. <input type="checkbox"/> Driver - make and record accurate readings for product and water in the tank after fuel delivery. <input type="checkbox"/> Driver - Make sure fill ports are properly secured. <input type="checkbox"/> Driver – Report any issues to the attendant, empty buckets of any product <input type="checkbox"/> Attendant (daily) - Ensure the spill bucket is clean and dry, clean up any small spills.

Attachment D

Material Safety Data Sheets