

# **UST TANK OWNER CONFERENCE**

**FALL 2017**

**Lynn Chambers  
UST Program Chief**

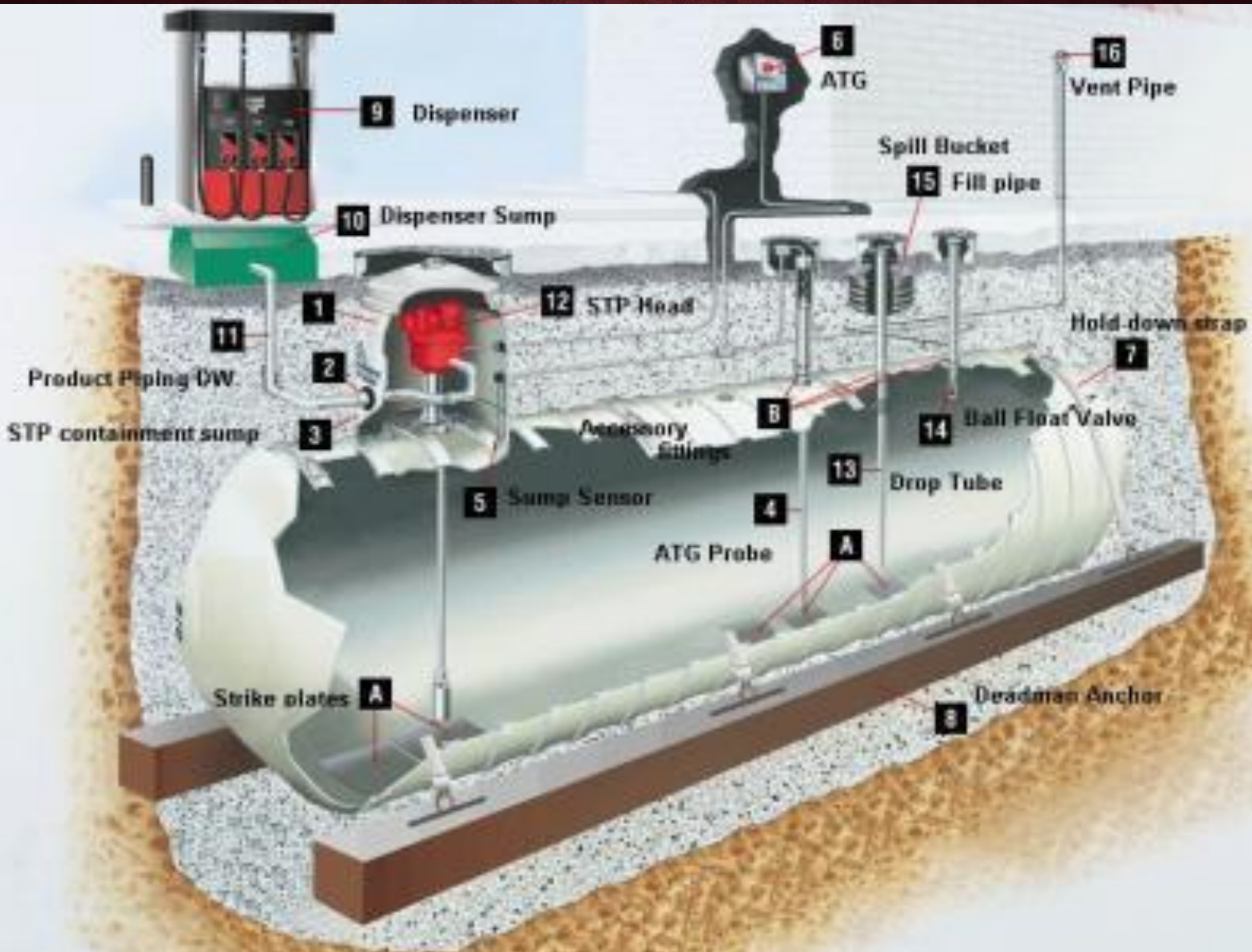
## **WHY WE ARE HERE:**

- Meet your local UST and Ag Dept inspectors
- Changes to UST technical regulations
- Discuss Basics of Mississippi Groundwater Protection Trust Fund
- Answer any questions















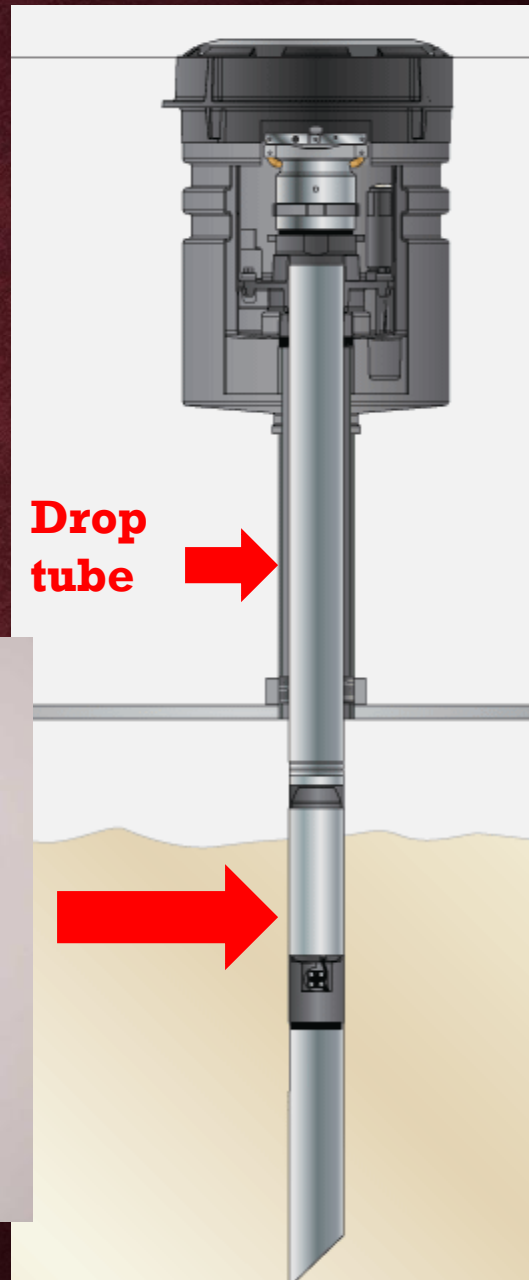
# UNDERNEATH



**Spill bucket**



**Overfill device**



**Drop tube**





**Submersible Pump  
(STP)**

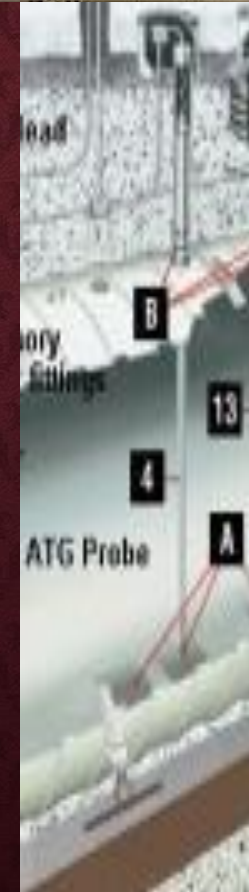


**Piping**



**Pipe leak detector**





## Automatic Tank Gauge (ATG)

### Computer interface in store

### Probes in tank

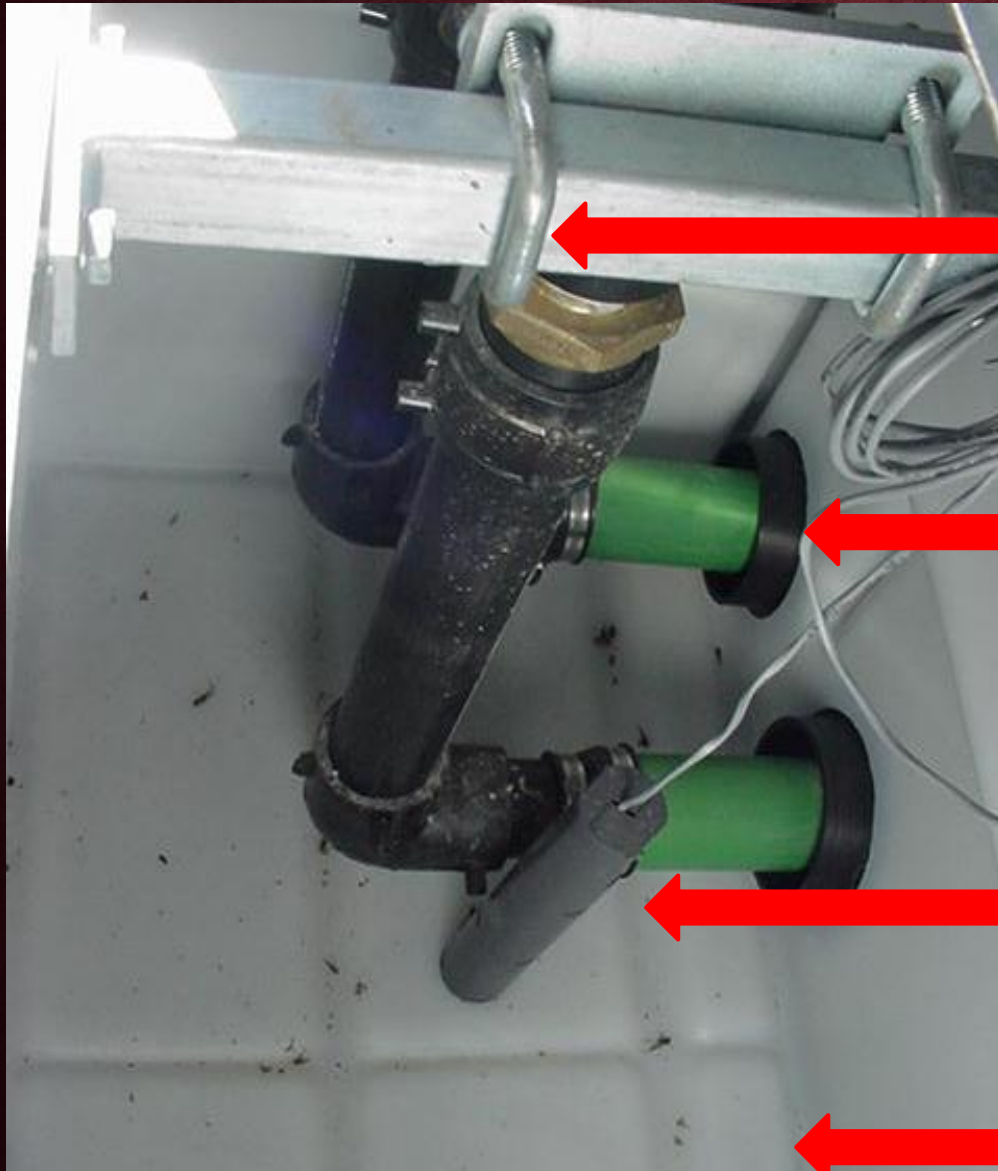
- Low fuel alarm
- High fuel alarm
- Water in fuel alarm
- Leak alarm





# Dispenser sumps





Anchoring for shear valve

Piping from tanks

Sensor for release/leak detection

Water tight sump



# **SHEAR VALVES AT DISPENSERS**



**One per product line**

**Lever needs to be  
present and working**

# NEW FEDERAL UST REGULATIONS

- Final and published in July 2015
- For Mississippi, we must have the new UST regulations adopted **no later than** October 2018





# **MAJOR UST FEDERAL REGULATION CHANGES FOR MS**

- **Monthly walk through inspections**
- **Regulating airport hydrant systems and field constructed tanks**
- **Requiring replacement of all UST piping when 50% or more of the piping is replaced**
- **Elimination of flow through restrictors (ball floats) for overfill prevention**
- **Notification and compatibility requirements for fuel blends > 10% ethanol or >20% biodiesel**

**CHANGES DUE IMMEDIATELY**  
**(EARLY 2018)**



# **REGULATION CHANGE**

## **NO BALL FLOATS**

**No longer allowed for new  
installations**



**Cannot replace  
existing  
ball floats with  
new  
ball floats**



# REGULATION CHANGE

## SECONDARY CONTAINMENT TESTING AT INSTALLATION

- At installation  
AND
- Before the UST system receives any delivery





# REGULATION CHANGE

## AUTOMATIC TANK GAUGE (ATG)



Visible or audible  
alarm

And

Capable of  
printing

# REGULATION CHANGE

Added leak detection requirement for ancillary equipment within secondary containment sumps that were installed after October 1, 2008





## REGULATION CHANGE

### **B-25 Biodiesel Blend**

contains more than 20  
percent biomass-based  
diesel or biodiesel

**NOTIFICATION 30  
DAYS PRIOR TO  
CHANGING FUEL  
BLENDS**

**20% ETHANOL**

USE **ONLY** IN  
**FLEX-FUEL VEHICLES**

**MAY HARM OTHER ENGINES**

> 10%  
ethanol

> 20%  
biodiesel

# REGULATION CHANGE

## DEMONSTRATE COMPATIBILITY

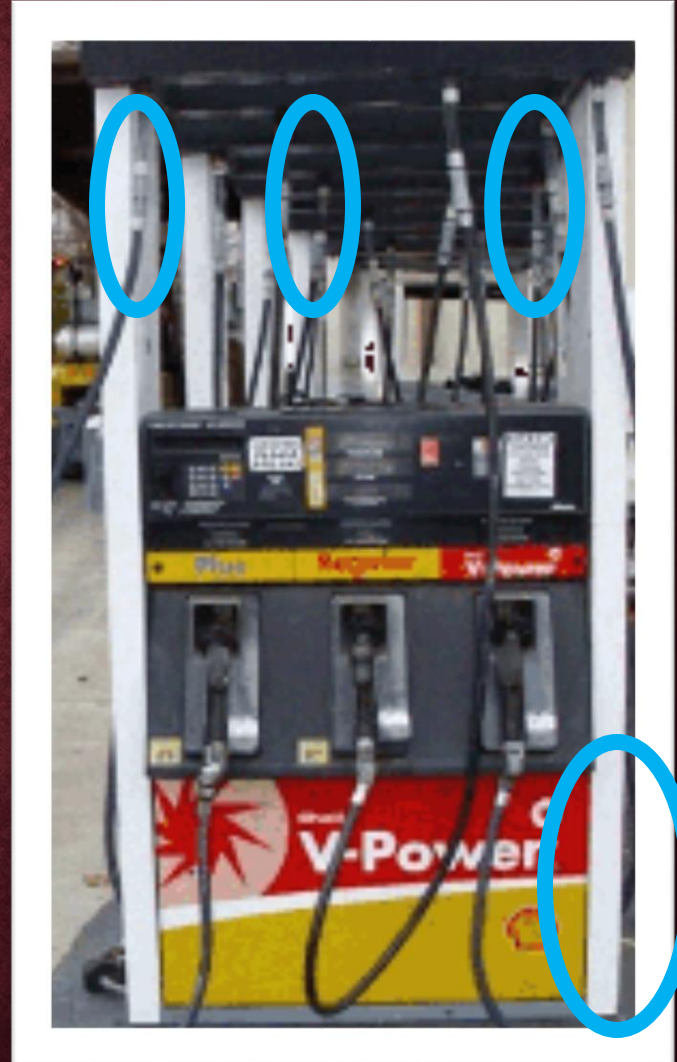
- Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or
- Equipment or component manufacturer approval. This manufacturer's approval must:
  - be in writing,
  - indicate an affirmative statement of compatibility,
  - specify the range of biofuel blends the component is compatible with, and
  - be from the equipment or component manufacturer



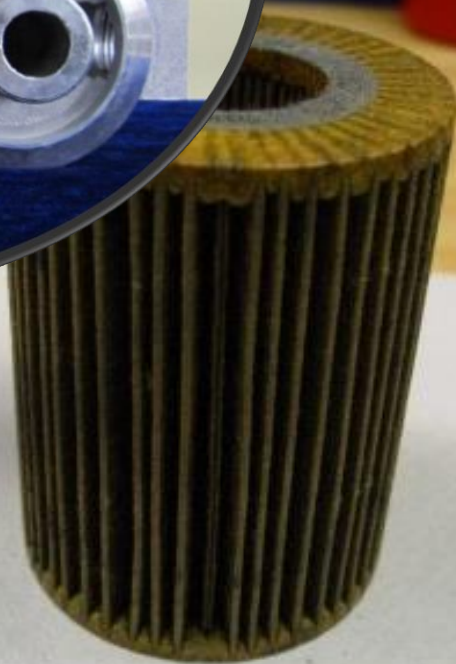
# REASON FOR CHANGE

## DISPENSER PROBLEM AREAS:

- Breakaways
- Nozzles
- Swivels
- Filters



# Dispenser filters clog



Biodiesel  $\leq$  B5



Biodiesel  $>$  B5

Clog with Deposits due to Biodiesel Degradation



# NOZZLE PROBLEMS



Nozzle corrodes

Handle cover melts

Swivels break

# REASON FOR CHANGE

## TANK COMPATIBILITY ISSUES

- Drop tubes
- Overfill prevention devices
- Inventory probes





# REASON FOR CHANGE

## OTHER TANK CONCERNS

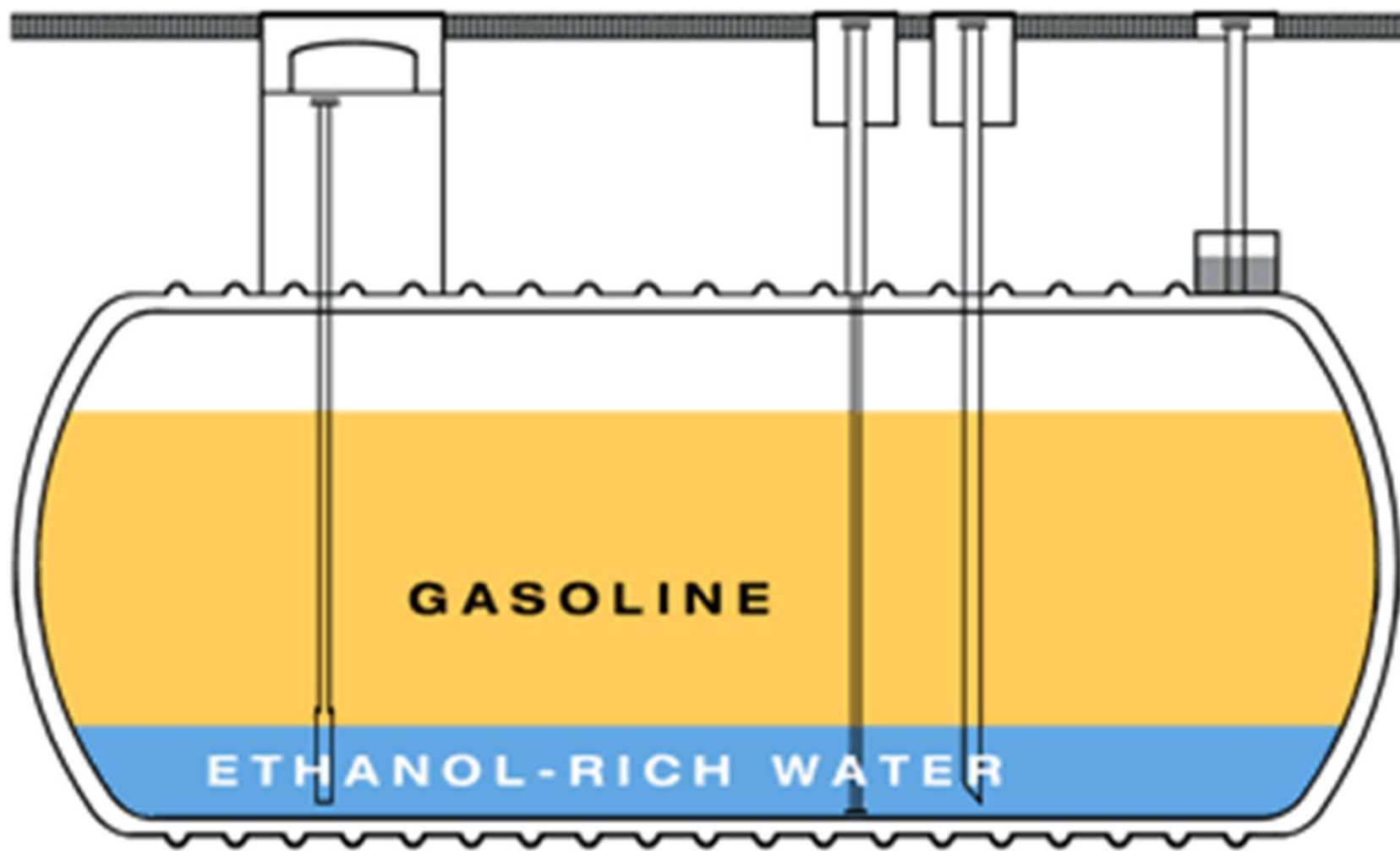
Customers getting  
water in their tank

Increased sludge  
build-up

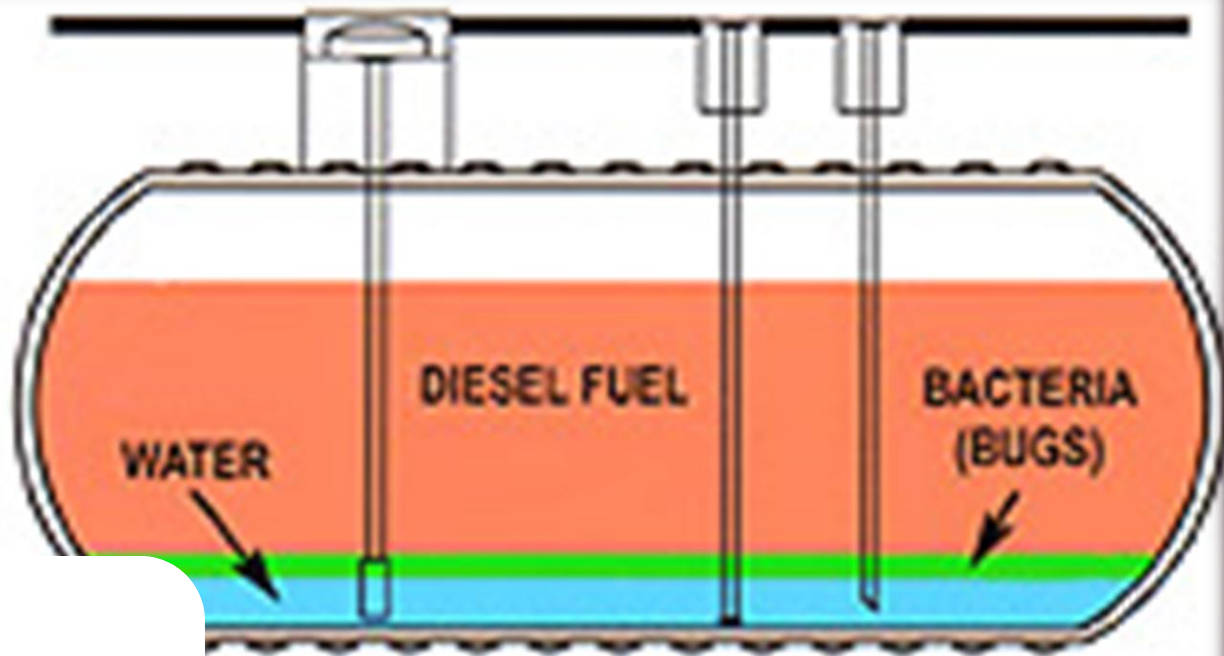
Quicker corrosion



## PHASE SEPARATION IN ETHANOL BLENDS







# REASON FOR CHANGE

## SUMP CONCERNS

Not compatible with  
copper



Not compatible  
with rubber



# HOW TO PREPARE FOR CONVERSION

- ✓ Buy new equipment
- ✓ Look for UL listing for specific fuel type
- ✓ Ask for manufacturer warranties
- ✓ Check your equipment regularly

# REGULATION CHANGE

## REPAIR TIMEFRAMES ADDED

30 days after observed failure for automatic line leak detectors

90 days after observed failure for regular testing components such as:

- Spill buckets
- Containment sumps
- Cathodic protection



# REGULATION CHANGE

## DELIVERY PROHIBITION MODIFIED

Added All shear valves are not properly installed

Added equipment is purposely disabled

Changed to 60 day written notification from 120 days



# **REGULATION CHANGE**

## **TEMPORARILY OUT OF SERVICE INDEFINITELY TANKS**

- 12 months out of service will require
  - Soil sampling (site assessment)
  - Verification that the tanks are empty
  - Verification that cathodic protection is still operating
- May require payment of annual tank fees



# **REGULATION CHANGE**

## **LENDER LIABILITY**

New Subpart to the regulations:

- Who's responsible prior to foreclosure
- Holder's responsibilities after foreclosure
  - Empties all UST systems within 60 calendar days of foreclosure
  - Permanently Close USTs or meet temporary closure requirements

# **FORECLOSURE**

# LENDER LIABILITY

Holder's responsibilities in temporary closure:

- ❖ Maintain corrosion protection
- ❖ Report suspected releases
- ❖ Conduct site assessment after 12 months of temporary closure if UST system does not meet new UST system standards



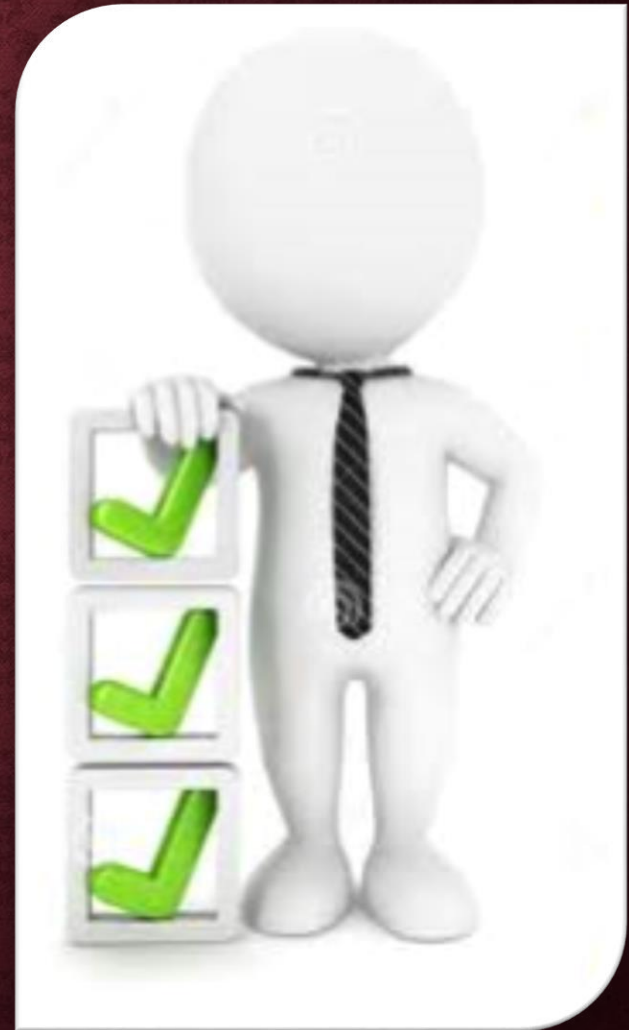
# LENDER LIABILITY AND YOU

release detection/prevention records

tank fee payment

compliance during last inspection

eligibility for Mississippi  
Groundwater Protection Trust Fund



# REGULATION CHANGE

## REPORTING REQUIREMENT



Must report to MDEQ  
failed UST system  
equipment that is not  
repaired and re-tested  
within 24 hours of  
discovery of the failure



**CHANGES DUE IN 6 MONTHS**  
**(MIDYEAR 2018)**

# **REGULATION CHANGE**

## **RE-DEFINED “REPLACED”**

For piping – to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank



For Mississippi,  $\geq 50\%$  of the piping needs to be replaced,

**ALL** the piping is required to be replaced with double-walled piping

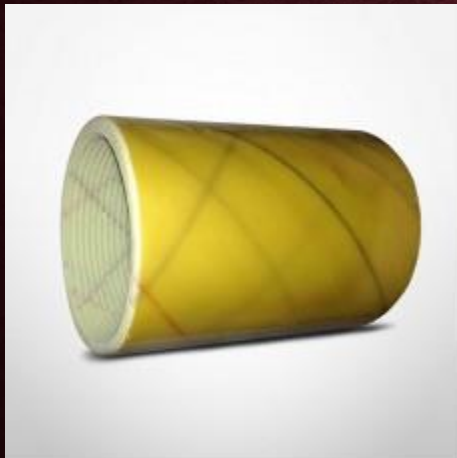


# REPLACED PIPING

The 50% replacement of piping rule applies individually to each piping run.

**FOR EXAMPLE:** single-walled, regular unleaded pipe has a leak. To repair the regular unleaded pipe, 60% of the regular unleaded pipe needs to be replaced.

**RESULT:** double-walled piping must be installed for regular unleaded piping.



# **REGULATION CHANGE**

## **CONTINUOUSLY MONITORED CONTAINMENT SUMPS**

Now requires annual  
inspection





# REGULATION CHANGE

## TEMPORARILY OUT OF SERVICE INDEFINITELY TANKS > 12 MONTHS

Permanent  
closure

or

Site  
Assessment

+

Annual  
Inspection

Remove or close in  
place the tanks and  
piping

Collect soil or  
groundwater samples  
from the perimeter of  
the tank bed area

Collect soil or  
groundwater samples  
around tank bed and  
piping areas

- Verify ownership
- Verify tanks are empty
- Inspect vent lines and any open piping
- Verify corrosion protection is operating, if applicable

# **CHANGES DUE IN 3 YEARS**

## **(EARLY 2021)**



# REGULATION CHANGE

## EMERGENCY POWER GENERATOR TANKS

Any EPG tanks (installed prior to October 1, 2008) will be required to add a form of release detections for their EPG tanks

Will mostly effect

- Hospitals / nursing homes
- Schools
- Emergency operation buildings
- Utility companies



# **REGULATION CHANGE**

## **MONTHLY WALK THROUGH INSPECTIONS**

- Check spill buckets and record the findings
- While checking release detection monthly, review records and record unusual operating conditions





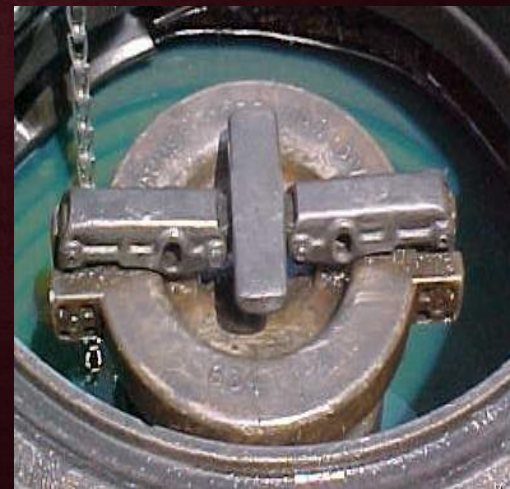
# MONTHLY WALK THROUGH INSPECTION (SPILL BUCKETS)

## Do

- Remove any liquid and debris
- Ensure the metal cover is on the spill bucket
- Check the fill cap for tight fit

## Record

- Each spill bucket checked
- Any liquid/debris removed
- Condition of bucket and caps





# MONTHLY WALK THROUGH INSPECTION (RELEASE DETECTION)

## Do

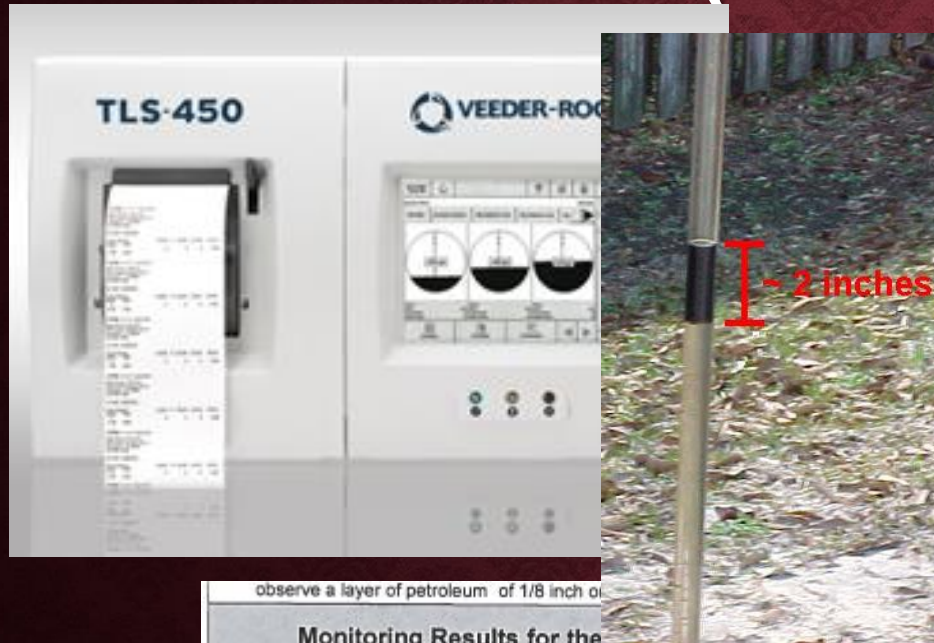
- Check for any alarms and reconcile accordingly
- Monthly written records are accurate
- Monitor for unusual operating conditions
- Visually inspect

## Record

- Any alarms noted and corrective action
- All release detection equipment checked
- Report unusual operating conditions and corrective action



# MONTHLY WALK THROUGH INSPECTION (RELEASE DETECTION)



observe a layer of petroleum of 1/8 inch or

Monitoring Results for the				
Monitoring Well Number		1	2	3
GROUNDWATER	Approximate depth to top of the water in the well (inches)	82"	84"	90"
	Is there any sheen of the store product on the water? (yes/no)	N	N	N
	Is there any layer of the stored product on the water? (yes/no)	N	N	N
	If there is a layer of the stored product, how thick is it? (inches)	2"	-	-
Vapor reading (record in parts per million)				
Have the vapor readings				

- Make sure you have a passing test for each tank and pipe
- If  $> 1/8^{\text{th}}$  inch fuel in MW, report it
- Elevated vapors are reported
- All alarms are reconciled
- Sumps are dry

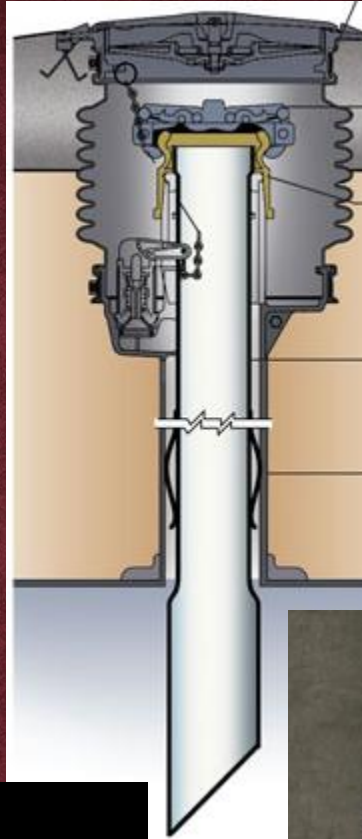


## **REGULATION CHANGE**

### **ANNUAL WALK THROUGH INSPECTION CHECKLIST**

- Check all handheld leak detection equipment
- Condition of each item
- Any actions taken for each item out of compliance
- Fuel delivery records if spill buckets checks > 30 days







# ANNUAL WALK THROUGH FOR



- Bailers are operating properly
- Tank gauge sticks are readable
- Vapor meters have been calibrated
- All caps and covers are present





# REGULATION CHANGE

## CONTAINMENT SUMP TESTING

Right now, we require  
**INSPECTING,**

New regulations require 3  
year **TESTING**



# SUMP TESTING REQUIREMENTS

- Fill with water - 4 inches above the highest penetration fitting/joint and at least 4 inches above the existing groundwater elevation
- Or another method approved by MDEQ





# WHAT ABOUT THE WATER?



# REGULATION CHANGES

## ADMINISTRATIVE CHANGES

- Deleted deferrals for airport hydrant systems and field constructed tanks
- Updated RP & industry standard docs
- Re-named

“Certification of Registration”

to

“Certificate of Operation”

CERTIFICATE OF REGISTRATION				
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY UNDERGROUND STORAGE TANKS				
MDEQ UST FACILITY ID NUMBER 9534				
This certifies that the referenced facility is registered and has paid all annual tank regulatory fees. No certification of substantial compliance is indicated.				
<b>REGISTERED UST OWNER</b>				
THE HERTZ CORP RENT A CAR DIV 131 SOUTH HANGER ROAD JACKSON INTERNATIONAL AIRPORT JACKSON, MS 39208				
<b>FACILITY NAME &amp; ADDRESS</b>				
THE HERTZ CORPORATION RENT A CAR 131 SOUTH HANGER ROAD JACKSON INTERNATIONAL AIRPORT JACKSON, MS 39208				
Tank Number	Compartment Number	Capacity (Gallons)	Substance Stored	Fuel Type
4	1	12000	Gasoline	Regular
<b>CERTIFICATE EXPIRES: JUNE 30, 2013</b>				
DATE CERTIFICATE ISSUED: 9/5/2012		 JERRY HANKS, GARD PROGRAM MANAGER		
This certificate automatically renews upon payment of annual tank regulatory fees.				
<b>THIS CERTIFICATE MUST BE POSTED AT THE FACILITY</b>				



# **REGULATION CHANGES**

## **ADMINISTRATIVE CHANGES**

Added / Updated definition for:

- Life safety/critical function UST
- Register
- Replace
- Under-dispenser containment or UDC

Added alternative method for catastrophic piping leak detection for life safety/critical function USTs

# REGULATION CHANGES

## ADMINISTRATIVE CHANGES

Deleted alternative rule for overfill prevention equipment:

- No longer allows “restrict flow at 30 minutes prior to fill up”
- No longer allows “alarm 1 minute before fill up”
- No longer allows “before it wets top of tank”





# **OCTOBER 1, 2017 CHANGE**

Penalty policy enforcement practices change  
for Inspection Violations

Penalties amounts for each facility will be  
based on each major violation

Holding more Administrative Conferences

# **AMOUNTS REMAIN SAME, PENALTIES NOW ADDED**

**Current Penalty = \$1,000**

**New Penalty = \$1,700**

No leak detection (\$1000)

No leak detection (\$1000)

No Spill bucket testing (\$500)

No Spill bucket testing (\$500)

No impressed current  
inspections (\$200)

No impressed current  
inspections (\$200)



**PLAN TO REQUEST INCREASE IN  
TANK FEE**

**+**

**TANK FEE FOR TEMPORARILY  
OUT OF SERVICE INDEFINITELY  
USTS**

Starting discussions with Petroleum Marketers and  
MDEQ is preparing a bill for introduction this  
legislative session

There has been no tank fee increase in **19 years**

# **UST FUTURE GOALS**

- Revised Mississippi Groundwater Protection Trust Fund Regulations by December 2017
- Draft UST Certified Contractor Regulations by October 2017
- Draft UST Technical Regulations incorporating federal regulations for public comment by December 2017



# UST CERTIFIED CATHODIC PROTECTION TESTERS



Adding a new category of UST contractors that have specialized training in cathodic protection testing

# UST CERTIFIED TECHNICIANS

Specializing in the annual testing requirements:

- Spill bucket testing
- Overfill prevention monitoring
- Sump integrity
- Release detection maintenance





# **UST COMPLIANCE WORKSHOP**

**November 2, 2017**

MDEQ Main Building

515 East Amite Street

Jackson, MS

# QUESTIONS?

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