

# MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ELECTRONIC INTERSTITIAL MONITORING

**Monitoring Results for the Month of**

**Year**

**UST Facility**

**Person Conducting Monitoring**

Facility Name		MDEQ Facility ID #	Person's Name		
Physical Address			Company		
City	County	State <b>MS</b>	City	State	
UST Owner			Person's Signature		Date
<b>Component</b>	<b>Double-Wall Tank</b>	<b>Double-Wall Pipe</b>	<b>STP Sump</b>	<b>Dispenser Sump</b>	<b>Transition Sump</b>
<b>Type of Interstitial Monitoring</b>	<input type="checkbox"/> Electronic <input type="checkbox"/> Visual (Manual)	<input type="checkbox"/> Electronic <input type="checkbox"/> Visual (Manual)	<input type="checkbox"/> Electronic <input type="checkbox"/> Visual (Manual)	<input type="checkbox"/> Electronic <input type="checkbox"/> Visual (Manual)	<input type="checkbox"/> Electronic <input type="checkbox"/> Visual (Manual)

**Electronic Interstitial Monitoring (EIM)**

All Sensors are connected to control panel and working properly? **	<b>Y / N</b>	Are ALL locations where interstitial monitoring is required equipped with sensors? **	<b>Y / N</b>
Sensor Status report printed and attached? **	<b>Y / N</b>	Sensor Alarm history report printed and attached for the monitoring period? **	<b>Y / N</b>
Are there any active sensor alarms indicated on the control panel? *	<b>Y / N</b>	Have there been any sensor alarms for the current monitoring period? *	<b>Y / N</b>

\*The Alarm Log and Visual Inspection must be completed if there are any active alarms **OR** \*if any sensor alarms have occurred during the monitoring period **OR** \*\*if your answer is NO for any of the above where action is needed.

Alarm Log	Sensor Location	Date of Alarm	Cause of Alarm if known	Date Resolved	Describe Action taken to resolve if known

**Visual Inspection (VI)**

Interstitial space ID (sensor label and/or location)								
Component monitored: Tank / STP / Transition / Dispenser								
Sensor positioned no more than one (1) inch from bottom?		Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Alarm Log above is complete?		Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Atmospheric	Condition of Interstice (Dry / Wet)	D / W	D / W	D / W	D / W	D / W	D / W	D / W
	If wet – Is fluid water, fuel or both?	W / F / BOTH	W / F / BOTH	W / F / BOTH	W / F / BOTH	W / F / BOTH	W / F / BOTH	W / F / BOTH
	If wet – Amount of fuel in Inches							
	If wet – Amount of water in Inches							
	All fluids removed?	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
	Active Fuel Leaks Observed	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Was leak stopped? Describe leaking component***:		Y / N : <b>Describe:</b>						
Brine	Brine Level in Inches							
	Is brine level in allowed range	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
	Specify Brine Range:							

**Pass / Fail**

<b>Action Needed</b> (mark all that apply / not resolved prior to departure)	<input type="checkbox"/> Liquid Removal needed	<input type="checkbox"/> Report fuel to MDEQ	<input type="checkbox"/> Shut down tank or piping immediately
	<input type="checkbox"/> Repair/Replace sensor(s)	<input type="checkbox"/> Correctly reposition sensor(s)	<input type="checkbox"/> Repair / replace printer / supply paper
	<input type="checkbox"/> Complete alarm log reconciliation	<input type="checkbox"/> Other:	

## Electronic Interstitial Monitoring Form Guidance

- This form may be utilized to document interstitial monitoring of secondarily contained UST systems.
- Interstitial monitoring is required on all secondarily contained UST systems installed after October 1, 2008.
- This form is designed primarily to be used for Electronic Interstitially Monitored systems (EIM) sensors however, it may be utilized for UST systems where interstitial monitoring is a mixture of EIM and monthly visual interstitial monitoring.

### MDEQ ELECTRONIC INTERSTITIAL MONITORING PROCEDURE

1. Print sensor status report and review. This print out is not optional. If you are unable to obtain the correct printout, prepare for and perform visual inspection of all locations.
2. Verify that all sensors are connected to console and functional on the sensor status report. If there are any not connected to the console or otherwise not functioning properly, prepare for and perform visual inspection of those locations.
3. If there are any active sensor alarms showing on the sensor status report, prepare for and perform visual inspection of those locations.
4. Verify that all interstitially monitored locations using sensors (EIM) are showing on the sensor status report. If there are locations where interstitial monitoring is required, and yet there is no sensor on the status report, prepare for and perform visual inspection of those locations.
5. Print the sensor alarm history report for each sensor for the monitoring period. Please note that:
  - a. You may have to adjust the range on the ATG so that it includes the required monitoring period.
  - b. The monitoring period required shall be a minimum of 30 days.
  - c. This print out is not optional. If you are unable to obtain the correct printout, prepare for and perform visual inspection of all locations.
6. Review the sensor alarm history report. If there are or were any sensor alarms that occurred during the monitoring period, prepare for and perform visual inspection of those locations.
7. Log all sensor alarms / locations on the alarm history report on the alarm log on this form. If the sensor alarm cleared itself within minutes mark the cause of the alarm as unknown and describe the action taken as visual inspection. Visual inspection of those locations, even if cleared in minutes, is still required. For sensor alarms that lasted hours or days it is expected that some level of human intervention was involved in clearing those alarms and the description of action taken should be filled out appropriately or work orders attached describing action taken. Please note that sensor alarms that resulted from annual testing (alarms shared by all sensors on the same day) are not required to be logged on the alarm log and visual inspection is not required.
8. Perform visual inspection of components / locations as required and document in visual inspection section. Investigate and document the cause of the alarm including a measurement of the amount of water and/or fuel observed (in inches) if applicable. Take appropriate action to resolve the alarm. Make corrections where appropriate and indicate clearly if the visual inspection upon departure from the location Passes or Fails.
9. If you are able to resolve issues that caused the alarms or failure such as removal of water, repositioning of sensors it is appropriate to return to the ATG and reprint the sensor status report after visual inspection and reconciliation is done and properly documented on visual inspection section.
10. Attach the sensor status report to this form. If not attached, it should be retained at a minimum and made available to MDEQ upon request.
11. Attach the sensor alarm history report to this form. If not attached, it should be retained at a minimum and made available to MDEQ upon request.
12. Notify the tank owner in writing of any action needed that could not be resolved at the time of this inspection and resulted in a failing result.

## MDEQ VISUAL INTERSTITIAL INSPECTION PROCEDURE

- 1.) Clearly identify the sensor label / location AND the component being visually inspected.
- 2.) If the visual inspection is being done due to a sensor related issue you must verify that the sensor is positioned no more than 1 inch from the bottom of the component being monitored. If you are able to correct the sensor position or if it is installed correctly mark YES. If you are unable to correct the sensor position mark NO and FAIL the visual inspection portion with action needed being the tank owner needs to correctly reposition sensor(s). If there is not a sensor mark NA.
- 3.) If the visual inspection is being done due to a sensor related issue the alarm log should be completed appropriately. If you are able to confirm what actions were taken to resolve a sensor alarm and log it appropriately on the alarm log mark YES. If you are not able to confirm what was done for an alarm you should mark this as NO and FAIL the visual inspection portion with action needed being the tank owner needs to verify and complete alarm reconciliation log.
- 4.) Perform Visual inspection accordingly as initially found:
  - a) Atmospheric (Dry Interstice)
    1. Record whether the interstice as found is Dry or Wet
    2. If wet, Record whether fluid is Fuel, Water, or Both
    3. If wet, Record the amount of Water in inches. (as found / not after fluid removal)
    4. If wet, Record the amount of Fuel in inches. (as found / not after fluid removal)  
Please note if a reportable amount of fuel is observed, whether removed or not, you should FAIL the visual inspection portion of this report with action needed being report fuel observed to MDEQ.
    5. If you are authorized by tank owner to remove all fluid, remove all fluid and dispose of properly. Answer the question as YES for all fluid removed.
    6. If you are not authorized and / or do not remove all fluid as found, answer the question as NO for all fluid removed and FAIL the visual inspection with action needed being the tank owner needs to remove fluid.
    7. Note if any active leaks are observed in the interstitial space as YES or NO.
    8. Was leak stopped? \*\*\* Answer question as YES and describe what was done and leaking if you were able to make corrections to stop the leak. If you were not able to stop the leak answer question as NO, describe the leaking component and FAIL visual inspection specifying what action is needed.
  - b) Brine Filled
    1. Record the brine level in inches
    2. Note whether present brine level is within acceptable range.  
Please note that if brine level observed is not in acceptable range you should FAIL the visual inspection portion of this report with action needed being report to MDEQ and other appropriate action as needed.
    3. Specify the acceptable brine range
  - c) Vacuum / Pressure – piping or tanks utilizing vacuum or pressure to monitor the interstitial spaces should complete the EIM portion of this form. Visual inspection of the gauges and/or monitoring system alone is not acceptable. If any alarm is observed on these systems, visual inspection is required which will require accessing all components and verifying that there is NO liquid present at the lowest point of all interstitial spaces connected to the system.
- 5.) For FAILURES, Complete the ACTION NEEDED section if you are unable to resolve any issue on site where further action is needed by the tank owner to perform interstitial monitoring appropriately.
- 6.) Notify the tank owner in writing of any action needed that could not be resolved at the time of this inspection and resulted in a failing result.