

# Appendix A-3: SAMPLE FORM FOR ANNUAL UNDERGROUND STORAGE SYSTEM INSPECTION CHECKLIST – PAGE 1

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ANNUAL UNDERGROUND STORAGE SYSTEM INSPECTION CHECKLIST			
Facility ID#	Facility Name/Address	Qualified Technician Signature	Date
If any problem is found, contact:		Contact information:	

Category	Description	PEI/RP900	N/A	Tank 1	Tank 2	Tank 3	Tank 4
Monthly Inspections	Complete monthly checklist and compare to previously completed monthly checklists	8.4.1					
	Monthly inspections reviewed and found adequate	8.4.2					
<b>Submersible Turbine Pump (STP)</b>		8.5					
All STP	Junction box(es) sealed, not corroded; seal-offs present; intrinsically safe wiring in good condition	8.5.1.1					
	Mechanical line-leak detector properly vented, vent tube not kinked or twisted	8.5.1.2					
	Mechanical line-leak detector passes 3.0 gph test	8.5.1.3					
	Electronic line-leak detector passes 3.0 gph test	8.5.1.4					
	Flexible connector not twisted, kinked, or bent beyond manufacturer's specifications	8.5.1.5					
	Submersible pump and visible piping and fittings show no signs of leaking	8.5.1.6					
	Piping in good condition	8.5.1.7					
No STP Sump	Submersible pump head, flex connector(s) and other metallic product piping are not in contact with soil or water or are cathodically protected	8.5.2.1					
STP in Sump	Any water or product removed and disposed of properly	8.5.3.1					
	Sump is free of cracks, holes, bulges, or other defects	8.5.3.2					
	Penetration fittings intact and secured	8.5.3.3					
	Piping interstitial space open to the sump (open piping system only)	8.5.3.4.1					
	Alarm sounds when pressure or vacuum is released (closed piping system only)	8.5.3.4.2					
	Entire interstitial space under pressure or vacuum (closed piping system only)	8.5.3.4.3					
	Sump sensor properly mounted at the bottom of the sump	8.5.3.5					
	Sensor tested and functional	8.5.3.6					

Recommended Practices for the Inspection and Maintenance of UST Systems

# Appendix A-3: SAMPLE FORM FOR ANNUAL UNDERGROUND STORAGE SYSTEM INSPECTION CHECKLIST – PAGE 3

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Category	Description	PEI/RP900	N/A	Tank 1	Tank 2	Tank 3	Tank 4
	Wire splices sealed and wire in good condition	8.8.2					
	Junction box and conduit sealed, in good condition	8.8.3					
	Probe and floats in good condition, both floats present and move freely (mag probe)	8.8.4					
	Verify operation of water- and product-level warnings and alarms (mag probe)	8.8.5					
	Manhole cover in good condition, adequate clearance between the ATG probe cap and manhole cover	8.8.6					
<b>Fill Area</b>		8.9					
Drop Tube	Drop tube extends to within 6 inches of the tank bottom (if no flow diffuser present)	8.9.1					
Vapor-Recovery Adaptor	Poppet of vapor-recovery adaptor (also known as a "dry break") moves freely, seals tightly	8.9.2					
<b>Overfill Prevention</b>		8.10					
Drop Tube Shutoff (Flapper Valve)	Valve moves freely and operates according to manufacturer's specifications	8.10.1.1					
	Valve installed at proper height	8.10.1.2					
Ball-Float Valve	Ball float can be removed and inspected	8.10.2.1					
	Cage intact, ball in good condition, moves freely, seats firmly; breather hole open	8.10.2.2					
	Installed at proper height	8.10.2.3					
Overfill Alarm	Alarm mounted near fills, clearly labeled	8.10.3.1					
	Alarm is functional	8.10.3.2					
	Alarm sounds at the proper product level	8.10.3.3					
<b>Leak Detection</b>		8.11					
ATG Console	Console has no active warnings or alarms	8.11.1.1					
	Alarm history shows no recurring leak alarms	8.11.1.2					
	Verify in-tank leak-detection tests are being completed (if used for leak detection)	8.11.1.3					
	Verify correct set-up parameters for the in-tank test	8.11.1.4					
	Verify correct set-up parameters for electronic line-leak detector (if present)	8.11.1.5					
	Verify piping leak-detection tests are being completed (if used for leak detection)	8.11.1.6					
Continuous Interstitial Monitoring	Tank interstitial access is present	8.11.2.1					
	"Dry" tank sensor tested and functional, reinstalled at bottom of tank	8.11.2.2					

# Appendix A-3: SAMPLE FORM FOR ANNUAL UNDERGROUND STORAGE SYSTEM INSPECTION CHECKLIST – PAGE 5

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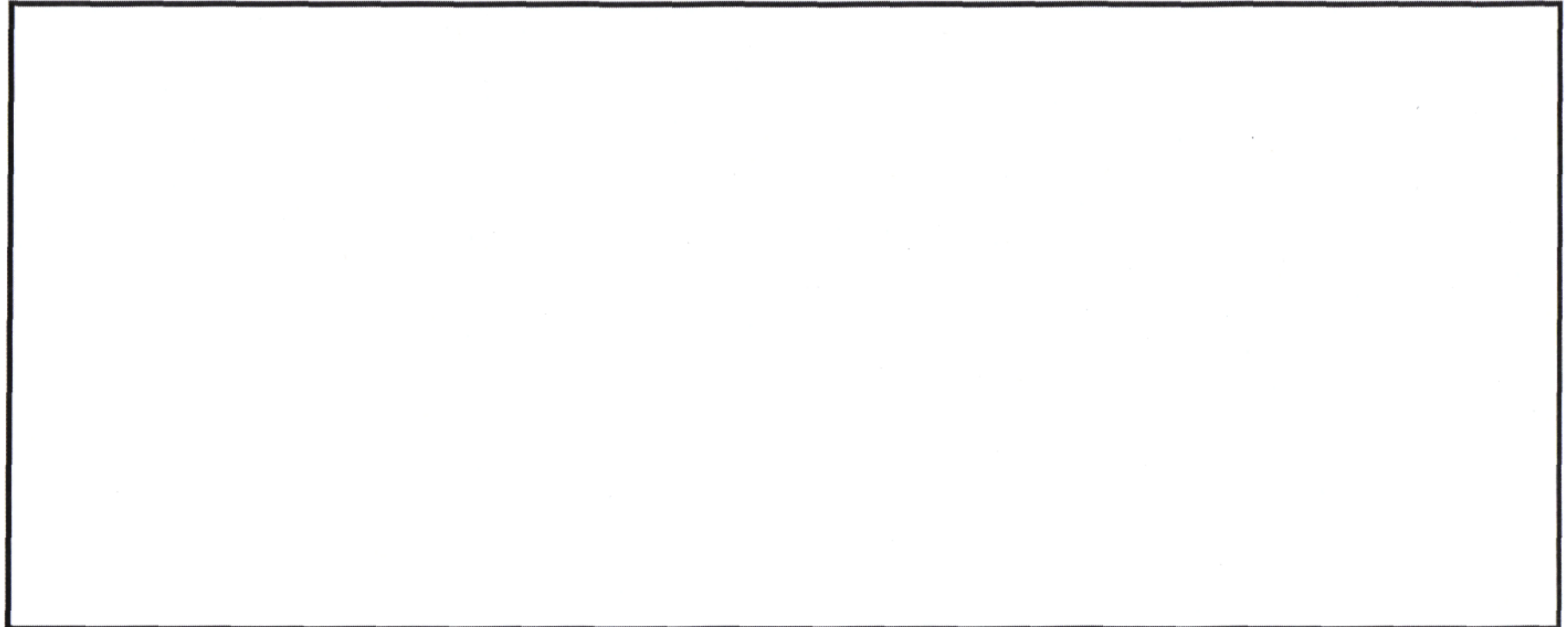
Category	Description	PEI/RP900	N/A	Tank 1	Tank 2	Tank 3	Tank 4
<b>Fuel Dispenser Inspection</b>		8.15					
All Dispensers	Junction boxes sealed, not corroded; seal-offs present; intrinsically safe wiring in good condition	8.15.1.1					
	Flexible connector not twisted, kinked, or bent beyond manufacturer's specifications	8.15.1.2					
	Piping in good condition	8.15.1.3					
	Stage II piping functional or else capped and sealed at elevation lower than the fuel dispenser island	8.15.1.4					
Dispensers Without Sumps	Flex connectors and other metallic product piping are not in contact with soil or water or are cathodically protected	8.15.2.1					
Dispensers With Sumps	Any water removed and disposed of properly	8.15.3.1					
	Sump free of trash, debris, and used filters	8.15.3.2					
	Sump is free of cracks, holes, bulges, or other defects	8.15.3.3					
	Penetration fittings intact and secured	8.15.3.4					
Piping Interstitial Space	Piping interstitial space open to the sump	8.15.4.1					
	Piping interstitial space closed to the sump	8.15.4.2					
	Sensor present in the fuel-dispenser sump with closed double-walled piping system	8.15.4.3					
Dispenser Sump Sensors	Sump sensor properly mounted at the bottom of the sump	8.15.5.1					
	Electronic sensor tested and functional	8.15.5.2					
	Mechanical float sensor free to move and properly adjusted	8.15.5.3					


**DESCRIBE ANY DEFICIENCIES HERE:**


Instructions: Mark each tank where no problem is observed with a checkmark: √  
 If certain equipment is not required and / or not present, mark checklist in the N/A column.  
 If a defect is found, mark the checklist with an "X," describe the problem in the "DEFICIENCIES" section, and notify the appropriate person.  
 Refer to the section in the PEI Recommended Practices on UST system equipment inspection listed in the 'PEI/RP900' column for additional information. Refer to PEI RP500, *Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment*, for inspection procedures that apply to fuel dispensing equipment.

## Appendix A-4: SAMPLE SITE DIAGRAM FORM

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Legend	Tanks	Piping	Site Diagram	
ATG - automatic tank gauge			Facility Name:	
CP - cathodic protection			Address:	
D - dispenser			Drawn by:	Date:
I - interstitial access				
DW - double wall				
F - fill				
STP - submerged turbine pump				
UST - underground storage tank				
V - vent connection				
VR - Stage I vapor recovery				
 - observation well				

See Figure 4-1 for an example of a completed form. Having ready access to accurate storage system information is very important to the proper operation of underground storage systems.

## APPENDIX B

### STORAGE SYSTEM INSPECTION SUMMARY TABLE

COMPONENT	DAILY	MONTHLY	ANNUAL
Complete daily checklist and compare to previously completed daily checklists		X	
Complete monthly checklist and compare to previously completed monthly checklists			X
Automatic Tank Gauge	X	X	X
Check for Water in Tank		X	
Tank Top and Fuel Dispenser Sumps			X
Fuel dispensers			X
Drop Tube		X	X
Electronic Leak Detector		X	X
Fill Cover	X		
Fill Pipe	X	X	
Electronic Leak Detector (piping)		X	X
Galvanic Corrosion Protection			X
Tank Gauge Stick		X	
Grade Level Covers		X	
Groundwater/Soil Vapor Monitoring		X	X
Impressed Current Corrosion Protection		X	X
Inventory Control	X	X	
Leak Detection Monitor	X	X	X
Manual Interstitial Monitoring		X	
Mechanical Leak Detector (piping)	X		X
Observation Wells		X	X
Overfill Prevention			X
Piping Condition			X
Piping Leak Test		X	
Piping Tightness Test			X
Site Diagram			X
Spill Containment Manhole	X	X	
Stage I Vapor Recovery		X	X
Stage II Vapor Recovery			X
Statistical Inventory Reconciliation		X	
Submersible Turbine Pump			X
Tank Lining			X
Tank Pad and Pavement			X
Tank Tightness Test			X
Tank Vents		X	

**TABLE B-1.** This table lists alphabetically the components that are included in the daily, monthly, and annual inspections described in this recommended practice and the frequency of inspection for each of these components. Refer to the checklists in Appendix A and Chapters 6, 7, and 8 of this document for detailed descriptions of the inspection procedures.