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					
Submersible Turbine Pump (STP)		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					

Appendix A-3: SAMPLE FORM FOR ANNUAL UNDERGROUND STORAGE SYSTEM INSPECTION CHECKLIST – PAGE 2

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Category	Description	PEI/RP900	N/A	Tank 1	Tank 2	Tank 3	Tank 4
	Sump lid, gasket, and seals present and in good condition	8.5.3.7					
	Manway cover at grade in good condition, does not touch sump cover, all bolts present, handles and lift mechanism in good condition (as applicable)	8.5.3.8					
Other Tank-Top Sump		8.6					
Other Tank-Top Sump (Same Procedure as STP 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					
	Sump lid, gasket, and seals present and in good condition	8.5.3.7					
	Manway cover at grade in good condition, does not touch sump cover, all bolts present, handles and lift mechanism in good condition (as applicable)	8.5.3.8					
Other Sumps		8.7					
All Other Sumps (Same Procedure as STP 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 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					
	Sump lid, gasket, and seals present and in good condition	8.5.3.7					
	Manway cover at grade in good condition, does not touch sump cover, all bolts present, handles and lift mechanism in good condition (as applicable)	8.5.3.8					
ATG Manhole		8.8					
ATG Manhole	Cap in good condition, seals tightly, hole sealed where probe wire goes through	8.8.1					

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

Go to *www.pei.org/RP900* for an electronic version of this form

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					
Fill Area		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					
Overfill Prevention		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					
Leak Detection		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 4

Go to *www.pei.org/RP900* for an electronic version of this form

Category	Description	PEI/RP900	N/A	Tank 1	Tank 2	Tank 3	Tank 4
	"Wet" tank sensor functional, reinstalled in proper position	8.11.2.3					
	"Wet" tank leak-detection liquid depth within range specified by manufacturer	8.11.2.4					
Electronic Leak-Detection Monitor	Leak-monitoring console is operational and has no active warnings or alarms	8.11.3.1					
Line Tightness Testing	If pressurized piping has been tested in the last year, review the results and verify that the test passed	8.11.4.1					
	If suction piping has been tested within the last three years, review the results and verify that the test passed.	8.11.4.2					
Under Pump Check Valve (Suction Pump)	Below grade piping operates at less than atmospheric pressure	8.11.5.1					
	Below grade piping slopes continuously back to the tank	8.11.5.2					
	There is only one check valve, and it is located as close as practicable to the suction pump	8.11.5.3					
Tank Tightness Testing	If a tank test has been conducted within the last five years, review the results and verify that the test passed	8.11.6.1					
Continuous Soil-Vapor Monitoring	Sensing device calibrated and tested	8.11.7.1					
Continuous Groundwater Monitoring	Sensing device tested	8.11.8.1					
Corrosion Protection		8.12					
Galvanic CP	Verify that CP testing of all metallic components in contact with soil or water has been conducted within the past three years and test passed	8.12.1.1					
Impressed Current CP	Verify that CP testing has been conducted within the past three years and test passed	8.12.2.1					
	No exposed wires	8.12.2.2					
Tank Lining	Lining inspected as required and in good condition	8.12.3.1					
Miscellaneous		8.13					
Tank Pad & Pavement	Concrete or asphalt over or near tanks is level, no significant cracks	8.13.1.1					
Stage II Liquid-Collection Points	Cap in good condition, fits tightly, little or no liquid in bottom	8.13.2.1					
Stage II Testing	Verify that Stage II testing has been conducted and test results are passing	8.13.3.1					
Site Diagram	Site diagram accurately reflects the site conditions	8.13.4.1					
Initial Fuel Dispenser Inspection		8.14					
Initial Dispenser Inspection	All dispenser components are clean and dry	8.14.1.1					
	If fuel-dispenser sump is present, sump is dry	8.14.1.2					

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
Fuel Dispenser Inspection		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.