PERCHLOROETHYLENE DRY CLEANERS

COMPLIANCE INSPECTION CHECKLIST

Environmental Compliance

INSPECTION TYPE: ANNUAL (INS1, INS2) ☒ COMPLAINT/DISCOVERY (CI) ☐
RE-INSPECTION (FUI) ☐ ARMS COMPLAINT NO: ☐

AIRS ID#: 103 0451	**Date: November 3, 2011**	**Time In: 11:15AM**	**Time Out: 11:45AM**
Facility Name:	Phu Enterprises		
Facility Location:	1850 Main Street		
	Dunedin, FL, 34698		
Responsible Official:	Cuong Van Phu	**Phone No:**	727-734-3353
Emis. Unit Description:	New, Large Perchloroethylene Dry Cleaner: Consists of 2 1999 Realstar 473 Dry-To-Dry Machines with Refrigerated Condensers. A 15 hp natural gas fired boiler is on-site.		
Permit Number:	1030451-005-AG	**Exp. Date:**	9/26/2012
Facility Contact:	Cuong Van Phu	**Phone:**	727-734-3353
Compliance Status:	☒ **IN** ☐ **MNC** ☐ **SNC**		

PART I: NOTIFICATION (Check appropriate box)

1. **Existing** facility notified DARM by 9/1/96 ☐
2. **New** facility notified DARM 30 days prior to startup ☒
3. Facility **failed to notify** DARM to use general permit ☐

PART II: CLASSIFICATION

Facility indicated on notification form that it is:
☐ No Notification Form ☐ Drop-Off Store ☐ Out of business ☐ Petroleum Solvent Only

A.

1. **Existing small** area source
Dry-to-dry only, **x <140** gal/yr
Transfer only, x <200 gal/yr ☐
Both types, x <140 gal/yr
(Constructed **before 12/9/91**)

2. **New small** area source
Dry-to-dry only, **x <140** gal/yr
Transfer only, x <200 gal/yr ☐
Both types, x <140 gal/yr
(Constructed on or **after 12/9/91**)

3. **Existing large** area source
Dry-to-dry only, **140> x <2,100** gal/yr
Transfer only, 200> x <1,800 gal/yr ☐
Both types, 140> x <1,800 gal/yr
(Constructed **before 12/9/91**)

4. **New large** area source
Dry-to-dry only, **140> x <2,100** gal/yr
Transfer only, 200> x <1,800 gal/yr ☒
Both types, 140> x <1,800 gal/yr
(Constructed on or **after 12/9/91**)

This is a correct facility classification ☒ Y ☐ N ☐ Can not determine

If no, please check the appropriate classification:
☒ Facility qualified for a general permit as number **4** above.
☐ Facility exceeds above limits and is not eligible for a general permit

B. Highest 12-month consecutive total of perchloroethylene purchased in the preceding 12-month period: 38.6 Gallons. Month with highest use was Sept 2011 . Did facility exceed limits ☐Y ☒N

PART III: GENERAL CONTROL REQUIREMENTS

Is the responsible official of the dry cleaning facility: (Check appropriate boxes)

1. Storing perchloroethylene in tightly sealed and impervious containers?	☒ Y	☐ N	☐ NA
2. Examining the containers for leakage?	☒ Y	☐ N	☐ NA
3. Closing and securing machine doors except during loading/unloading?	☒ Y	☐ N	
4. Draining cartridge filters in their housing or in sealed containers for at least 24 hours prior to disposal?	☒ Y	☐ N	☐ NA
5. Maintaining solvent-to-carbon ratios and steam pressure for carbon adsorber beds according to the manufacturer's specifications?	☐ Y	☐ N	☒ NA

PART IV: PROCESS VENT CONTROLS

In Part II-A:

If classification **(1)** has been checked, no controls are required. **Proceed to Part V.**

If classification **(2)** has been checked, the machine should be equipped with a refrigerated condenser (complete A below)

If classification **(3)** has been checked, the machine should be equipped with either a refrigerated condenser or a carbon adsorber (complete A and B below). A Carbon adsorber must have been installed prior to September 22, 1993.

If classification **(4)** has been checked, machine should be equipped with a refrigerated condenser (complete A and B below.)

A. Has the responsible official of all new sources and existing large area sources: (check appropriate boxes)

1. Equipped all machines with the appropriate vent controls?	☒ Y	☐ N	☐ NA
2. Equipped dry-to-dry machines with a closed-loop vapor venting system?	☒ Y	☐ N	☐ NA
3. Equipped the condenser with a diverter valve so airflow will be directed away from the condenser upon opening the door?	☒ Y	☐ N	☐ NA
4. Measured and recorded the temperature of the outlet exhaust stream of a refrigerated condenser on a weekly basis?	☒Y	☐ N	☐ NA
5. Repaired or adjusted the equipment within 24 hours if the exhaust temperature of the condenser exceeded 45^0 F?	☒Y	☐ N	☐ NA
6. Conducted all temperature monitoring after an appropriate cool down period and after verifying the coolant had been completely charged?	☒Y	☐ N	☐ NA

B. Has the responsible official of an existing large or new large area source also:

1. Measured and recorded the exhaust temperature on the outlet side of the condenser located on dry-to-dry, reclaimer, and dryer machines on a weekly basis?	☒Y	☐N	
2. Measured and recorded the washer exhaust temp[illegible]re at the condenser inlet and outlet weekly?	☐Y	☐N	☐NA
Is the temperature differential equal to o[illegible]e[illegible]^0 F?	☐Y	☐N	☐NA
3. Measured and recorded th[illegible]concentration [illegible]weekly at the end of the final drying cycle while the [illegible]e is venting [illegible]rber, [illegible] machines are equipped with a carbon ad[illegible]or?	☐Y	☐N	☐NA
Is the pe[illegible]n e[illegible]or less tha[illegible]ppm?	☐Y	☐N	☐NA

4. Assured that the sampling port on the carbon adsorber exhaust for measuring perc. concentrations is at least 8 duct diameters downstream of any bend, contraction, or expansion; is at least 2 dust diameters upstream from any bend contraction, or expansion; and downstream from no other inlet?	☐Y	☐N	☐NA
5. Equipped transfer machines (dryers, reclaimers, and washers) with individual condenser coils?	☐Y	☐N	☐NA
6. Routed airflow to the carbon adsorber (if used) at all times?	☐Y	☐N	☐NA

PART V: RECORDKEEPING REQUIREMENTS

Has the responsible official:
(Check appropriate boxes)

1.	Maintained receipts for perc purchased?	☒Y	☐N	
2.	Maintained rolling monthly averages of perc consumption?	☒Y	☐N	
3.	Maintained leak detection inspection and repair reports for the following:			
	a. Documentation of leaks repaired w/in 24 hrs? or;	☐Y	☐N	☒NA
	b. Documentation of parts ordered to repair leak and leak repaired w/in 2 days and parts installed w/in 5 days of receipt?	☐Y	☐N	☒NA
4.	Maintained calibration data? *(direct reading instruments only*)	☐Y	☐N	☒NA
5.	Maintained exhaust duct monitoring data on perc concentrations?	☐Y	☐N	☒NA
6.	Maintained startup/shutdown/malfunction plan?	☒Y	☐N	
7.	Maintained deviation reports?	☐Y	☐N	☒NA
	Problem corrected?	☐Y	☐N	☒NA
8.	Maintained compliance plan, if applicable?	☒Y	☐N	☐NA

PART VI: LEAK DETECTION AND REPAIRS

1.	**Does the responsible official conduct weekly leak detection and repair inspection?**	☒Y	☐N
2.	**Which method of detection does the responsible official use?**	☒Y	☐N
	Visual examination (condensed solvent of exterior surfaces)	☒Y	☐N
	Physical detection (airflow felt through gaskets)	☒Y	☐N
	Odor (noticeable perc odor)	☒Y	☐N
	Use of direct-reading instrumentation (FID/PID/calorimetric tubes)	☐Y	☒N
	If using direct-reading instrumentation, is the equipment:	☐Y	☐N
	a. Capable of detecting perc vapor concentrations in a range of 0-500 ppm	☐Y	☐N
	b. Calibrated against a standard gas prior to and after each use (PID/FID only).	☐Y	☐N
	c. Inspected for leaks and obvious signs of wear on a weekly basis?	☐Y	☐N
	d. Kept in a clean and secure area when not in use.	☐Y	☐N
	e. Verified for accuracy by use of duplicate samples (calorimetric only)?	☐Y	☐N
3.	**Has the facility maintained a leak log?**	☒Y	☐N
4.	**The following area should be checked for leaks by the operator:**	☒Y	☐N

Hose connections, fitting couplings, and valves	☒Y	☐N	Muck cookers	☐Y ☒N
Door gaskets and seating	☒Y	☐N	Stills	☒Y ☐N
Filter gaskets and seating	☒Y	☐N	Exhaust dampers	☒Y ☐N
Pumps	☒Y	☐N	Diverter valves	☐Y ☒N
Solvent tanks and containers	☒Y	☐N	Cartridge Filter housing	☒Y ☐N
Water separators	☒Y	☐N		

Shea Jackson	11/3/2011
Inspector's Name (Please Print)	Date of Inspection
	Within one year of this inspection
Inspector's Signature	Date of Next Inspection

System Inspection and Leak Detection

Are the following dry cleaning system components inspected weekly for perceptible leaks (sight, smell or touch) while the system is in operation (§63.322(k))? (Inspection with a halogenated hydrocarbon detector or PCE gas analyzer also fulfills the requirement for inspection of perceptible leaks.) ☒Y ☐N ☐NA

Are the following dry cleaning system components inspected monthly for vapor leaks using a halogenated hydrocarbon detector or PCE gas analyzer while the system is in operation? (Any inspection conducted according to this paragraph shall satisfy the requirements to conduct an inspection for perceptible leaks under §63.322(k) or (l). ☒Y ☐N ☐NA

(1) Hose and pipe connections, fittings, couplings, and valves;

(2) Door gaskets and seatings;

(3) Filter gaskets and seatings;

(4) Pumps;

(5) Solvent tanks and containers;

(6) Water separators;

(7) Muck cookers;

(8) Stills;

(9) Exhaust dampers;

(10) Diverter valves; and

(11) All Filter housings

Is the halogenated hydrocarbon detector or PCE gas analyzer operated according to the manufacturer's instructions? ☒Y ☐N ☐NA

Is the vapor leak inspection conducted by placing the probe inlet at the surface of each component interface where leakage could occur and moving it slowly along the interface periphery? ☒Y ☐N ☐NA

Is the PCE gas analyzer a flame ionization detector, photo ionization detector, or infrared analyzer capable of detecting vapor concentrations of PCE of 25 parts per million by volume? ☐Y ☐N ☒NA

Is the halogenated hydrocarbon detector capable of detecting vapor concentrations of PCE of 25 parts per million by volume and indicating a concentration of 25 parts per million by volume or greater by emitting an audible or visual signal that varies as the concentration changes? ☒Y ☐N ☐NA

ADDITIONAL SITE INFORMATION

Facility Name:	Phu Enterprises
ARMS #:	103 0451

Inspection Comments:

- *I met with the responsible official, Mr. Cuong Van Phu..*
- *Mr. Cuong Phu showed the calendar records, he maintains the records for the machines. I reviewed the 2010 and 2011 recordkeeping calendars for both units 1 & 2. (black and white). They records were up to date for leak and temperature checks. (See Photos)*
- *The temperature is recorded as 4 °C for the machines. This is below the 7.5 C. This meets the minimum requirement.*
- *The Purchase invoices were stapled in the calendar. The most recent purchase invoices were with the calendar records for purchases orders on 10/10/11 for 19.3 gallons for both machines total 38.6 gallons purchased.*
- *The October 2011 -12 monthly totals was 38.6 for the (black #1) and 53.3 for the (white #2).*
- *The highest Perc total for No. 1 (Black) was 38.6 gallons, no Perc purchased for white machine in 2011, and No. 2 (white) total was 53.3 gallons, for a facility total of 91.6 gallons in September 2011*
- *I observed the dry to dry machines, the north unit Black and, the south unit known as white were not in operation at this time. The equipment appears to be in good condition, and all containers were closed. (See photo).*
- *The Hazardous waste containers closed and sitting within the secondary containment, beside the machines (See photo)*
- *Mr. Phu demonstrated how he uses the TIF RX 1A Halogen leak detector and checked the machine. (See photo). The detector during leak check sounds an audible beep; no alarm sounded from detector during the leak check of machines, there were no leaks detected during the inspection. There were no Perc odors detectable during observation of the machines.*
- *The Fultan natural gas boiler, is located in the rear of building in a separate storage room*
- *Mr. Cuong signed the annual certification.*
- *I left the Inspection summary. I also left copy of the P2R2 booklet and pamphlet. I discussed the use of possible Perc altenative solvents, usage for the machines. I emailed him a link for Fabrisolv for review.*
- *This source appears to be in compliance at this time.*

ADDITIONAL SITE INFORMATION

Facility Name:	Phu Enterprises
ARMS #:	103 0451

Machine #1:					
Manufacturer	Real Star	Capacity	50	lbs	
Model#	Ultra plus	Serial#		Mfg yr	1999
Machine #2:					
Manufacturer	Real Star	Capacity	50	lbs	
Model#		Serial#		Mfg yr	1999

Notification (unpermitted sources only):

1. Was the facility assisted in filling out the notification by the inspector?	☐Y	☒N
2. Did the facility insist on filling out its own notification, and will send it to FDEP?	☐Y	☒N

Record keeping :

1. Does facility have statement/specs as to the design accuracy of the temperature sensor? (Temperature of 45^0F w/accuracy +/– 2^0F, or 7.2EC w/accuracy of +/– 1.1^0C)	☒Y	☐N

Hazardous Waste:

1. Is all perc. contaminated wastewater either treated or disposed of properly?	☒Y	☐N
2. If wastewater is evaporated, is it an approved system, and using carbon filtration?	☒Y	☐N
3. Does the facility have secondary containment for the dry-dry machine?	☒Y	☐N
4. Does the facility have secondary containment for any perc. waste containers?	☒Y	☐N

Boiler:

Manufacturer	Fulton	Hp	50
Model #	Serial #	Model	

Fuel Type:	Natural gas?	☒	Fuel Type:	Natural gas?	☒	Fuel Type:	Natural gas?

Comments: Boiler installed for 2009 exempt from Permitting

Phu Enterprises Family Cleaners

1850 Main Street, Dunedin

Project Id: 80694 **Permit No:** 1030451-005-AG **Arms Number:** 0451

Inspector: Shea Jackson **Inspection Date / Time:** 11/3/2011

Source (EU): New, Large Perchloroethylene Dry Cleaner: Consists of 2 1999 Realstar 473 Dry-To-Dry Machines with Refrigerated Condensers. A 15 hp natural gas fired boiler is on-site.

Description: [Mr. Cuong performed a Perc leak check with Halogen leak detector]

Phu Enterprises Family Cleaners

1850 Main Street, Dunedin

Project Id: 80694 **Permit No:** 1030451-005-AG **Arms Number:** 0451

Inspector: Shea Jackson **Inspection Date / Time:** 11/3/2011

Source (EU): New, Large Perchloroethylene Dry Cleaner: Consists of 2 1999 Realstar 473 Dry-To-Dry Machines with Refrigerated Condensers. A 15 hp natural gas fired boiler is on-site.

Description: [The rear of machines and containers were closed and in secondary containment and no Perc odors]