



HALOGENATED SOLVENT DEGREASERS

COMPLIANCE INSPECTION CHECKLIST

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

AIRS ID#: 1030389 **DATE:** 8/20/2007 **ARRIVE:** 1:00PM **DEPART:** 2:10PM

FACILITY NAME: F. K. INSTRUMENT CO INC

FACILITY LOCATION: 2134 SUNNYDALE BLVD
 CLEARWATER 33765

RESPONSIBLE OFFICIAL: ERICH KLOPFER **PHONE:** (727)461-6060

CONTACT NAME: SAME **PHONE:** (

REMITTANCE YEAR: 2006 **ENTITLEMENT PERIOD:** 5/10/2007 / 5/10/2012
(effective date) (end date)

PART I: INSPECTION COMPLIANCE STATUS (check only one box)

IN COMPLIANCE MINOR Non-COMPLIANCE SIGNIFICANT Non-COMPLIANCE

PART II: NOTIFICATION – Rule 62-210.300 FAC
 (check appropriate box(es))

<p>1. Halogenated solvent used at facility:</p> <p>perchloroethylene ----- <input type="checkbox"/></p> <p>methylene chloride ----- <input type="checkbox"/></p> <p>trichloroethylene ----- <input checked="" type="checkbox"/></p> <p>1,1,1-trichloroethane ----- <input type="checkbox"/></p> <p>carbon tetrachloride ----- <input type="checkbox"/></p> <p>chloroform ----- <input type="checkbox"/></p>	<p>2. Indication on notification form that facility has the following machine type(s).</p> <p>Batch Vapor, $x \leq 1.21 \text{ m}^2$ ----- <input checked="" type="checkbox"/></p> <p>Batch Vapor, $x > 1.21 \text{ m}^2$ ----- <input type="checkbox"/></p> <p>New In-line ----- <input type="checkbox"/></p> <p>Existing In-line ----- <input type="checkbox"/></p> <p>Batch Cold ----- <input type="checkbox"/></p>
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PART III: CLASSIFICATION – Rule 62-213.300 FAC
 Indicate the machine type(s) observed at the facility:

Batch Vapor, $x \leq 1.21 \text{ m}^2$ -- <input checked="" type="checkbox"/>	New In-line ----- <input type="checkbox"/>	Batch Cold (immersion)----- <input type="checkbox"/>
Batch Vapor, $x > 1.21 \text{ m}^2$ -- <input type="checkbox"/>	Existing In-line -- <input type="checkbox"/>	Batch Cold (remote reservoir)-- <input type="checkbox"/>

PART IV: GENERAL CONTROL REQUIREMENTS – Rule 62-213.300 FAC

A. Batch Vapor and In-Line Machines

1. Does the facility maintain an idling and downtime mode cover that is readily opened and closed, that completely covers, has no cracks, holes, or defects; OR maintain a room designed with reduced draft according to Part II, Section (5)(c)6.b of the permit notification? ----- Yes No
2. Does the facility maintain a freeboard ratio of 0.75 or greater? ----- Yes No
3. Does the facility utilize a parts basket or parts whose size is less than 50% of the solvent-air interface area; OR introduce parts or parts basket at 0.9 m/min (3 ft/min) or less? ----- Yes No
4. Does the facility conduct all spraying operations within the vapor zone or an area not directly exposed to ambient air? ----- Yes No
5. Does the facility install and maintain an automated parts handling system capable of moving the parts/parts basket at 3.4 m/min. (11 ft/min) or less? ----- Yes No
6. Does the facility install and maintain a carbon adsorber on all machines using a lip exhaust? The exhaust concentration should not exceed 100 ppm halogenated solvent, the carbon adsorber should not be by-passed, the lip exhaust shall be located above the closed machine cover. ---- Yes No N/A
7. Does the facility have each machine equipped with:
- a. a device to shut off sump heat if the solvent level drops to the heater coils? ----- Yes No
 - b. a device to shut off sump heat if the vapor level rises above the height of the vapor condenser? ----- Yes N
 - c. a primary condenser? ----- Yse N
8. Does the facility store all waste solvent, still bottoms, and sump bottoms in closed containers? ----- Yes No

B. Batch Cold Cleaning Machines

1. Does the facility collect and store all waste solvent in closed containers? ----- Yes No
2. Does the facility use a flexible hose or flushing device only within the freeboard area? ----- Yes No
3. Does the facility drain cleaned parts for 15 seconds or longer or until dripping ceases, whichever is longer? ----- Yes No
4. Does the facility maintain the solvent level inside the machine at or below the fill line? ----- Yes No
5. Does the facility immediately clean up spills during solvent transfer? Store wipe rags in a covered container? ----- Yes No
6. Does the facility operate the agitator to produce a rolling motion? (*applicable only when air or pump agitated solvent bath used*). ----- Yes No N/A
7. Does the facility ensure that the machine is not exposed to drafts greater than 40 m/min (132 ft/min) when the cover is open? ----- Yes No
8. Does the facility ensure that sponges, fabrics, wood and paper products are not placed in the machine? ----- Yes No

Remote Reservoir Type Only

9. Does the facility employ a tightly fitting cover over the solvent sump? The cover must be closed at all times except during parts cleaning. ----- Yes No N/A

Immersion Type Only

10. Does the facility employ a tightly fitting cover and a water layer with a thickness of at least 2.5 cm (1 in.); OR employ a tightly fitting cover and maintain a freeboard ratio of 0.75? Tightly fitting cover must be closed at all times except during parts entry and removal. ----- Yes No N/A

PART V: PROCESS VENT CONTROLS – Rule 62-213.300 FAC (not applicable to batch cold cleaning machines)

Facility chose to meet requirements using:

- control device combination / work practice standards -----
- alternative solvent emission limit (proceed to Part VI) -----
- idling emission limit / work practice standards (proceed to Part VI) -----

A. Batch Vapor Machines, $x \leq 1.21 \text{ m}^2$

(Select control combination)

DEVICE IN USE

- | | | | |
|--------------------------------|---|--|--|
| 1. <input type="checkbox"/> g | working mode cover -- <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> | superheated vapor ----- <input type="checkbox"/> |
| 2. <input type="checkbox"/> g | reduced room draft --- <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> | superheated vapor ----- <input type="checkbox"/> |
| 3. <input type="checkbox"/> g | reduced room draft --- <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> | dwel ----- <input type="checkbox"/> |
| 4. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | superheated vapor -- <input type="checkbox"/> | |
| 5. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | working mode cover <input type="checkbox"/> | |
| 6. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | reduced room draft <input type="checkbox"/> | |
| 7. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> | |
| 8. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | dwel ----- <input type="checkbox"/> | |
| 9. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | carbon adsorber ---- <input type="checkbox"/> | |
| 10. <input type="checkbox"/> g | carbon adsorber ----- <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> | superheated vapor ----- <input type="checkbox"/> |

B. Batch Vapor Machines, $x > 1.21 \text{ m}^2$

(Select control combination)

DEVICE IN USE

- | | | | |
|-------------------------------|---|---|--|
| 1. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | superheated vapor -- <input type="checkbox"/> | 1.0 freeboard ratio ----- <input type="checkbox"/> |
| 2. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | superheated vapor -- <input type="checkbox"/> | working mode cover --- <input type="checkbox"/> |
| 3. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | superheated vapor -- <input type="checkbox"/> | reduced room draft ----- <input type="checkbox"/> |
| 4. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | superheated vapor -- <input type="checkbox"/> | carbon adsorber ----- <input type="checkbox"/> |
| 5. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | reduced room draft - <input type="checkbox"/> | dwel ----- <input type="checkbox"/> |
| 6. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | reduced room draft - <input type="checkbox"/> | 1.0 freeboard ratio ----- <input type="checkbox"/> |
| 7. <input type="checkbox"/> g | 1.0 freeboard ratio <input type="checkbox"/> | reduced room draft - <input type="checkbox"/> | superheated vapor ----- <input type="checkbox"/> |

C. Existing In-Line Machines

(Select control combination)

DEVICE IN USE

- | | | |
|-------------------------------|---|--|
| 1. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> |
| 2. <input type="checkbox"/> g | superheated vapor ---- <input type="checkbox"/> | 1.0 freeboard ratio - <input type="checkbox"/> |
| 3. <input type="checkbox"/> g | freeboard refrig. device <input type="checkbox"/> | dwel ----- <input type="checkbox"/> |
| 4. <input type="checkbox"/> g | carbon adsorber ----- <input type="checkbox"/> | dwel ----- <input type="checkbox"/> |

D. New In-Line Machines

(Select control combination)

DEVICE IN USE

- | | | |
|--------------------------|---|---|
| <input type="checkbox"/> | freeboard refrig. device <input type="checkbox"/> | superheated vapor - <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device <input type="checkbox"/> | carbon adsorber ---- <input type="checkbox"/> |
| <input type="checkbox"/> | superheated vapor ----- <input type="checkbox"/> | carbon adsorber ---- <input type="checkbox"/> |

PART VI: RECORDKEEPING REQUIREMENTS – Rule 62-213.300(3) FAC

Has the responsible official maintained the following:

1. Owner's manuals, design specifications, and other instructional materials for cleaning machine and control equipment? ----- Yes No
2. Date of installation for cleaning machine and all control devices? If the exact date is unknown, they must have a letter stating installation occurred before or after 11/29/93. ---- Yes No
3. Halogenated solvent content for each solvent used? (*exempt if <5% by weight*) ----- Yes No
4. Estimates of annual solvent consumption for each machine? ----- Yes No
5. Dates of solvent additions and amounts added to each machine? (*applicable only to those using an alternative emission limit*) ----- Yes No N/A
6. Idling emissions limit tests, including values obtained during the initial performance test? (*applicable only to those using an idling emissions limit*) ----- Yes No N/A
7. All control device and parameter monitoring? (*applicable only to batch vapor and in-line machines*) ----- Yes No N/A
8. Information on remedial actions in the event of exceedances or other repairs and subsequent monitoring of affected parameters? ----- Yes No N/A
9. Monthly emissions calculations (*applicable only to those using an alternative or idling emission limit*) ----- Yes No N/A
10. 3-month rolling average emissions calculations? (*applicable only to those using an alternative emission limit*) ----- Yes No N/A
11. Cleaning capacity calculations? (*applicable only to those using an alternative emission limit without a solvent-air interface*) ----- Yes No N/A

Shea L. Jackson

8/20/2007

Inspector's Name (Please Print)

Date of Inspection

2008

Inspector's Signature

Approximate Date of Next Inspection

COMMENTS:

- I met with the responsible official Erich Klopfer.
- Mr. Uwe Moerseburg, vice president of operations continues to maintain the tank and trichloroethylene usage records. The facility is closely monitoring the tank use.
- I reviewed the records logs with Mr. Klopfer and toured the facility. (See copies)
- I reviewed their records back to May 2006 - July 2007. The 3 -month rolling average totals in the record logs ranged from 11.3 - 31.2 lbs / ft² for May 2007. There were no exceedances of the 30.7 lb/ft² emission limit found during the record review. I advised Mr. Klopfer that it appears that the amount for May is coming very close to exceedance. He stated they are trying very hard to not exceed and when that happens they don't use the tank. He stated the trichloroethylene tank is specifically operated for military contracted parts, and they still maintained that in his opinion there is not a good substitute.
- Mr. Klopfer stated he had only disposed of one 50 gallon drum of trichloroethylene waste just recently. (see Hazardous waste manifest invoice 6/6/2007 (See copy). He stated they are redoing the waste area and labeling the drums he should the new labels he was going to be using.
- I observed the tank it was not in use at this time. The freeboard ratio solvent /air interface is 25" x 16"x 2.75". The tank was locked at this time
- The baskets used for dipping, have not been changed I saw the 2 small baskets one was ~ 12" x 12" and the other was a round ~ 8" diameter basket, these were less the 50% of the air/solvent interface area.
- The parts are occasionally sprayed inside the tank. (See photo)
- The solvent tank is not required to have a carbon absorber above the closed cover. I asked him about the water separator on the tank. He showed the valve outlet for the covered separator compartment, but he stated they had never had to open or drain during their use of the tank. I advised him if there had been any water in the compartment would have to be treated as Hazardous waste disposal.
- Mr. Klopfer stated the tank is used only when specified under certain military defense contracts. They had come close to their in May 2007 as the 3 month rolling average was at 30.2 lbs/ft²
- I toured the second building and observed the drums and machines on site. I observed cutting oils and water in use for the CNC machines operation. There did not appear to be any new chemical products in use. I observed mostly machine oils. Mr.

Klopher stated they have not made any changes in the chemical products used at the facility, since last year. They are using denatured alcohol, for parts cleaning, ~ 2 gallons used per month. I observed the Citrus cleaner. Mr. Klopher stated he has had the same drum for 5 years and it continues to clean well and he has not run low on the cleaner.

- Mr. Klopher had purchased a new machine. He stated it has a closed loop system that does not mix the oil and waters, so does not have to use as much oil. He stated the newer machine s as these come along will reduce the oil waste. (See photo)