

**HALOGENATED SOLVENT DEGREASERS  
TITLE V GENERAL PERMIT  
COMPLIANCE INSPECTION CHECKLIST**

**TYPE OF INSPECTION:** ANNUAL (INS1, INS2)  COMPLAINT/DISCOVERY (CI)   
 RE-INSPECTION (FUI)  ARMS COMPLAINT NO. \_\_\_\_\_

**AIRS ID#:** 1030389 **DATE:** 6/13/2008 **TIME IN:** 10:00 AM **TIME OUT:** 10:30 AM  
**FACILITY NAME:** F.K. Instrument Co., Inc.  
**FACILITY LOCATION:** 2134 Sunnydale Blvd.  
Clearwater, FL 33765  
**RESPONSIBLE OFFICIAL :** Erich Klopfer **PHONE:** 727-461-6060  
**CONTACT NAME:** Erich Klopfer **PHONE:** 727-461-6060

**PART I: NOTIFICATION**

(check appropriate box) **Facility Compliance Status:** IN

1. New facility notified DARM 30 days prior to startup  (ARMS Data) MNC

2. Facility failed to notify DARM to use general permit

3. Halogenated solvent used at facility:

perchloroethylene <input type="checkbox"/>	methylene chloride <input type="checkbox"/>
trichloroethylene <input checked="" type="checkbox"/>	1,1,1-trichloroethane <input type="checkbox"/>
carbon tetrachloride <input type="checkbox"/>	chloroform <input type="checkbox"/>

4. Facility indicated on notification form that it has the following machine type(s). Check more than one box if applicable:

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

**PART II: CLASSIFICATION**

1. 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"/>

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**PART III: GENERAL CONTROL REQUIREMENTS**

**A. Batch Vapor and In-Line Machines** Does the facility:

- 1. 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 ? Y N
- 2. Maintain a freeboard ratio of 0.75 or greater? Y N
- 3. 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/sec) or less? Y N
- 4. Conduct all spraying operations within the vapor zone or an area not directly exposed to ambient air? Y N/A
- 5. Install and maintain an automated parts handling system capable of moving the parts/parts basket at 3.4 m/min. (11ft/min) or less? Y N/A
- 6. 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. Y N N/A
- 7. Have each machine equipped with --
  - a. a device to shut off sump heat if the solvent level drops to the heater coils? Y N
  - b. a device to shut off sump heat if the vapor level rises above the height of the vapor condenser? Y N
  - c. a primary condenser? Y N
- 8. Store all waste solvent, still bottoms, and sump bottoms in closed containers? Y N

**B. Batch Cold Cleaning Machines**

Does the facility:

- 1. Collect and store all waste solvent in closed containers? Y N N/A
- 2. Use a flexible hose or flushing device only within the freeboard area? Y N N/A
- 3. Drain cleaned parts for 15 seconds or longer or until dripping ceases, whichever is longer? Y N N/A
- 4. Maintain the solvent level inside the machine at or below the fill line? Y N N/A
- 5. Immediately clean up spills during solvent transfer? Store wipe rags in a covered container? Y N N/A
- 6. Operate the agitator to produce a rolling motion? (*applicable only when air- or pump-agitated solvent bath used*) Y N N/A
- 7. Ensure that the machine is not exposed to drafts greater than 40 m/min (132 ft/min) when the cover is open? Y N N/A
- 8. Ensure that sponges, fabrics, wood and paper products are not placed in the machine? Y N N/A

*Remote Reservoir Type Only*

- 9. Employ a tightly fitting cover over the solvent sump? The cover must be closed at all times except during parts cleaning. Y N N/A

*Immersion Type Only --*

10. 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.

Y  N

**PART IV: PROCESS VENT CONTROLS** (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 V*)

*Facility must maintain 30.7lb/ft<sup>2</sup> solvent emission limit.*

*\*(See Comments for further details)\**

- idling emission limit / work practice standards (*proceed to Part V*)

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

control comb.

selected

In use

- |                          |  |                          |                          |                          |
|--------------------------|--|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | working mode cover / 1.0 freeboard ratio / superheated vapor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | reduced room draft / 1.0 freeboard ratio / superheated vapor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | reduced room draft / 1.0 freeboard ratio / dwell             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / superheated vapor                 | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | freeboard refrig. device / working mode cover                | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | freeboard refrig. device / reduced room draft                | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | freeboard refrig. device / 1.0 freeboard ratio               | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | freeboard refrig. device / dwell                             | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | freeboard refrig. device / carbon adsorber                   | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | carbon adsorber / 1.0 freeboard ratio / superheated vapor    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

control comb.

Selected

In use

- |                          |   |                          |                          |                          |
|--------------------------|---|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | freeboard refrig. device / superheated vapor / 1.0 freeboard ratio  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / superheated vapor / working mode cover   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / superheated vapor / reduced room draft   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / superheated vapor / carbon adsorber      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / reduced room draft / dwell               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / reduced room draft / 1.0 freeboard ratio | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 1.0 freeboard ratio / reduced room draft / superheated vapor        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**C. Existing In-Line Machines**

N/A

control comb.

selected

In use

- |                          |  |                          |                          |                          |
|--------------------------|--|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | freeboard refrig. device / 1.0 freeboard ratio | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | superheated vapor / 1.0 freeboard ratio        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | freeboard refrig. device / dwell               | <input type="checkbox"/> | <input type="checkbox"/> |                          |
| <input type="checkbox"/> | carbon adsorber / dwell                        | <input type="checkbox"/> | <input type="checkbox"/> |                          |

**D. New In-Line Machines**

N/A

control comb.

selected

In use

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

**PART V: RECORDKEEPING REQUIREMENTS**

**Has the responsible official maintained the following:**

- |   |                                       |  |
|---|---------------------------------------|--|
| 1. Owner's manuals, design specifications, and other instructional materials for cleaning machine and control equipment?  | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N   |
| 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. | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N   |
| 3. Halogenated solvent content for each solvent used? ( <i>exempt if &lt;5% by weight</i> )   | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N   |
| 4. Estimates of annual solvent consumption for each machine?  | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N   |
| 5. Dates of solvent additions and amounts added to each machine? ( <i>applicable only to those using an alternative emission limit</i> )  | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N <input type="checkbox"/> N/A            |
| 6. Idling emissions limit tests, including values obtained during the initial performance test? ( <i>applicable only to those using an idling emissions limit</i> )                 | <input type="checkbox"/> Y            | <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A |
| 7. All control device and parameter monitoring? ( <i>applicable only to batch vapor and in-line machines</i> )  | <input type="checkbox"/> Y            | <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A |
| 8. Information on remedial actions in the event of exceedances or other repairs and subsequent monitoring of affected parameters?   | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N <input type="checkbox"/> N/A            |
| 9. Monthly emissions calculations ( <i>applicable only to those using an alternative or idling emission limit</i> )   | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N <input type="checkbox"/> N/A            |
| 10. 3-month rolling average emissions calculations? ( <i>Applicable only to those using an alternative emission limit</i> )   | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N <input type="checkbox"/> N/A            |
| 11. Cleaning capacity calculations? ( <i>Applicable only to those using an alternative emission limit without a solvent-air interface</i> )   | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N <input type="checkbox"/> N/A            |

**PART VI: ADDITIONAL SITE INFORMATION**

**Compliance Issues:** *The facility regarding the occurrence of exceedances of the Emissions Limitation of 30.7 lb/ft<sup>2</sup> / month, was not a violations of the 3 month rolling average total for the month. The facility would not need to report the exceedances to the department unless there was an exceedance of 3 month rolling total average. A notice of violation would not be issued. The facility 3 month rolling average has been very close to the emission limit, so the facility is using an alternative solvent. (Simesolv)*

- *During the inspection I was not able to meet with the responsible official Erich Klopfer. He was not in at this time, as was on vacation, until 6/16/2007.*
- *Mr. Uwe Moerseburg, vice president maintains the trichloroethylene tank usage records, he was not in at this time, was also on vacation.*
- *I toured the facility with the office personnel. I observed the tank, it was not in use at the time of the inspection. The facility controls the tank use by locking the unit up when not in use. The tank was locked at this time.*
- *I requested that Mr. Klopfer email the records from August 2007 to June 2008 (See copies)*
- *I received email on 6/16/2008 with records attachment. I reviewed the records and the 3 -month rolling average totals for August 2007 thru May 2008. The solvent usage monthly totals for this time period ranged from 20.6 - 31.6 lbs / ft<sup>2</sup> / month.*
- ***\* There were two months where there was an exceedance of the monthly emission limitation of the 30.7 lb/ft<sup>2</sup>. The highest total was 31.6 lbs / ft<sup>2</sup> for the month of January 2008. This was second exceedance of emission limit exceedance found during the record review. The first exceedance had occurred in October 2007 with rate of 30.9 lbs/ft<sup>2</sup>/month.***
- ***These exceedances of the limit did not exceed the 3 month rolling average, as the facility reduced usage the following months\****
- *I advised Mr. Klopfer of the exceedances. He stated he would find an alternative to the trichloroethylene usage. The facility in the past had been stating there were no solvents which were a good substitute for the military contracts. They had trialed many solvents and have not found a suitable substitute.*
- *In a email he later proposed Simesolv could be a non HAP, no VOC substitute solution. I checked the Simesolv MSD sheet he sent me, and found it to be a possible non HAP substitute, and also submitted to P2, Tammy Allen for verification.*
- *He stopped the trichloroethylene usage effective in July 2008, and stated the Simesolv was working . He stated he was using the product and was going to continue to trial until 12/31/2008.*
- *He sent a corrections action letter 7/9/2008 with the facilities semi annual exceedance report He also sent additional MSD sheet of the Simesolv as proposal to resolve the future permit exceedances issues.*
- ***\* The facility did not reported the exceedances when occurred, they did submit the 2008 semi annual report on 7/9/2008. The facility is in compliance pending the complete discontinuance of trichloroethylene, and possible rescind of the GPV by December 2008.***

Shea Jackson

Inspector's Name

June 13, 2008

Date of Inspection

Inspector's Signature

2009

Approximate Date of Next Inspection

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