Tank Farm Plant Operating Procedure

Operate F & J Air Samplers

Changes “Other Than Inconsequential” Require These Additional Reviews:

Radiological Controls:
Central Radcon Organization

USQ # GCX-2

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tr>
<td>C-1</td>
<td>09/01/2016</td>
<td>PER</td>
<td>Updated Records section to current standard.</td>
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<tr>
<td>C-0</td>
<td>03/30/2016</td>
<td>Periodic Review</td>
<td>No technical changes identified. Minor editorial changes only.</td>
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<td>B-1</td>
<td>09/09/2014</td>
<td>Radcon request</td>
<td>Changed from Reference to Routine.</td>
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<td>B-0</td>
<td>01/08/2013</td>
<td>Periodic Review</td>
<td>Reworked warnings to be in compliance with writer’s standard for warnings.</td>
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<td>A-6</td>
<td>05/22/2012</td>
<td>Radcon request</td>
<td>Deleted 2.1.1, added 2.1.2 and 2.1.3. Added Equipment Safety Section 3.2. Moved NOTE from below to above 5.1.2. Deleted 5.1.3 thru 5.1.3.3. Made 5.1.3.4 thru 5.1.2.3 level 3 steps. Revised 5.1.5, 5.1.8, 5.1.9, 5.1.10, Section 5.2. Deleted Attachment 1.</td>
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## 4.3 Field Preparation

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1.0 PURPOSE AND SCOPE

1.1 Purpose
This procedure provides specific information and instruction for the operation of F & J digital Air Samplers, models DFHV-1, DFHV-1S, DF-AB-40L, DF-AB-40L-Li, DF-AB-20L-Li, DF-AB-75L-Li, and others.

1.2 Scope
This procedure pertains to F & J Digital Air Samplers.

2.0 INFORMATION

2.1 General Information
2.1.1 DFHV-1 and DFHV-1S air samplers shall be operated with a ground fault circuit interrupter (GFCI).
2.1.2 Samplers can be operated at altitudes of up to 2000m.
2.1.3 Samplers can be operated at relative humidity of less than or equal to 100%.
2.1.4 The DF-AB-40L, DF-AB-40L-Li and DF-AB-20L-Li models are DC powered and pose no electrical shock hazard when operated in the DC modes. These samplers are contained in a lightweight, small dimensioned enclosure which is watertight.
2.1.5 The F&J Digital Air Samplers self-correct for changes in temperature and barometric pressure.
2.1.6 The DFM may have one or more optional features enabled.

2.2 Terms and Definitions
- DFM Digital Flow Meter
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - DFHV 1 or DFHV 1S air samplers generate noise greater than 80dB. Failure to wear hearing protection inside established noise barriers when performing activities other than starting/stopping air samplers may result in hearing loss.

**WARNING** - Failure to wear appropriate gloves could result in burns to the hands.

3.1.1 A five foot hearing protection boundary shall be established when using the DFHV-1 or DFHV-1S Air Samplers.

3.1.2 Hearing protection is not required when time spent inside the boundary is limited to turning on and off the DFHV-1 or DFHV-1S Air Samplers.

3.1.3 DFHV-1 and DFHV-1S air samplers shall be operated with a ground fault circuit interrupter (GFCI).

3.2 Equipment Safety

3.2.1 The DFHV 1 and DFHV 1S with AKI head air sampling systems are designed for periodic use in temperatures from 18 °F to 122 °F (8 °C to 50 °C) in a noncondensing atmosphere.

3.2.2 Samplers must be operated in a dry location, sheltered from rain, and snow. Operation is not allowed where the device is subject to rainfall, water spray, steam or corrosive chemicals.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:
- Filter paper, AKI planchettes, or other appropriate sample media
- Sample envelope
- Rain shield for filter holder.

4.2 Performance Documents

The following documents may be needed to perform this procedure:
- Instrument Service Tag

4.3 Field Preparation

4.3.1 CONFIRM air sampler calibration is current.

4.3.2 IF using a DFHV-1 or a DFHV-1S Air Sampler, ESTABLISH a five foot hearing protection boundary.
5.0 PROCEDURE

5.1 Start and Stop a New Air Sample

Start a New Air Sample Activity

5.1.1 PLACE new filter media in the filter holder.

NOTE - Because of LED dimming, pressing a button twice may be necessary to perform a function. Pressing a button once brightens the LEDs.

5.1.2 PRESS the ON-OFF button to place the DFM in standby mode.

WARNING

DFHV-1 or DFHV-1S air samplers generate noise greater than 80dB. Failure to wear hearing protection inside established noise barriers when performing activities other than starting/stopping air samplers may result in hearing loss.

NOTE - Hearing protection is not required when time spent inside the boundary is limited to turning on and off the DFHV-1 or DFHV-1S Air Samplers.

5.1.3 DON appropriate hearing protection.

NOTE - The DFM must be in Flow mode to start the unit.

5.1.4 PRESS the “RESET” button to start the sampling event.

5.1.5 RECORD the initial sample time and flow rate on sample envelope.
Operate F & J Air Samplers

5.1 Start and Stop a New Air Sample (Cont.)

NOTE - There is a two or three second delay from pressing the RESET button to the motor starting.

Temporarily Suspend a Sample Activity

**WARNING**

Failure to wear appropriate gloves could result in burns to the hands.

5.1.6 DON appropriate gloves.

5.1.7 IF it is not necessary to temporarily suspend acquisition of the sample, GO TO Step 5.1.10.

5.1.8 PRESS the “RESET” button to shut off the pump motor (the accumulated elapsed time and accumulated volume up to the time of suspension is saved and viewable by the operator).

NOTE - Elapsed time is not counted when the pump motor is off. The Total Volume value is frozen because Flow is zero when the pump motor is off.

5.1.9 PRESS the “RESET” button to resume the sample activity.

Terminate a Sample Activity

5.1.10 PRESS the “RESET” button to shut off the pump motor (the elapsed time and total volume value(s) are preserved).

5.1.11 OBTAIN AND RECORD the elapsed time, final flowrate, total volume value, and time off on the sample envelope.

5.1.12 PRESS the ON-OFF button to remove power from the DFM.

5.1.13 REMOVE the filter(s) from the filter holder for laboratory analysis.
5.2 Records

5.2.1 **PERFORM** the following for records identified within this procedure.

5.2.1.1 On the Records Submittal Checklist, **RECORD** the number of pages that were completed

OR

**PLACE** a check mark (✓) in the N/A column.

5.2.1.2 **ATTACH** the completed records to the Records Submittal Checklist **AND**

**SIGN** Records Submittal Checklist indicating the package is complete.

5.2.1.3 **SUBMIT** the completed records to an approved RadCon Record Storage Area for retention.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS), is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.

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<tr>
<th>Records Submittal Checklist</th>
<th>Number of pages completed</th>
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<tbody>
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<td>Sample envelope.</td>
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_________________________ / _______________________ / ______________
Signature                  Print (First and Last Name) Date
First Line Manager (or designee)