TSR Compliance

ANSI N13.1 Quarterly Compliance for AN Exhausters

Tank Farm Maintenance Procedure

AN Farm HMI Exhausters

USQ # N/A-4

<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>E-3</td>
<td>07/18/2018</td>
<td>Maintenance Request</td>
<td>Changes in support of upcoming software updates on the AN VTP system consistent with ECN-714198.</td>
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<td>E-2</td>
<td>05/01/2018</td>
<td>Maintenance Request</td>
<td>Removed annual steps and made separate procedure.</td>
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<tr>
<td>E-1</td>
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<td>Maintenance Request</td>
<td>Rerord Step 3.4.4, Remove NOTE to Step 3.4.5.</td>
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<td>E-0</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose


1.2 Scope

1.2.1 Performance of this procedure verifies exhauster compliance with ANSI N13.1 as mandated by 40 CFR 61.

1.2.2 This procedure is applicable to both A and B Trains of the AN Farm exhauster. Series 500 numbers identify A-Train components (e.g., AN241-VTP-V-500), and series 600 numbers identify B-Train components (e.g., AN241-VTP-V-600).

1.2.3 Procedure component numbers specify only the instrument/component identifier and the sequential number (e.g., V-500 or V-600). On system drawings and component labels, the component numbers include the applicable tank farm and system designator (e.g., AN241-VTP-).
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Confirm pressure media (gas, water, chemicals, steam, etc.) and take necessary precautions to prevent personnel injury or damage to equipment when relieving pressure.

3.1.2 If a lock and tag is required during the performance of this procedure, comply with the DOE-0336, Hanford Site Lockout/Tagout Procedure.

3.1.3 All identified hazards and personal protective equipment (PPE) requirements are to be addressed in the pre-job safety meeting.

3.1.4 Industrial Hygiene Technician (IHT) performs Industrial Hygiene (IH) Monitoring as specified in an IH Sampling Plan.

3.2 Radiation and Contamination Control

3.2.1 When disconnecting, breaching, or opening potentially contaminated systems or system components:
- Continuous HPT coverage is required
- Pre-job and post-job surveys are required
- A damp rag will be used to contain the breach until radiological verifications have been performed
- Special care shall be taken to ensure contamination control when inserting and withdrawing test equipment
- All test equipment shall be surveyed by Health Physics Technician for contamination when withdrawn from the system
- Externals of caps, plugs, and instrumentation shall be surveyed before and after removal from the system and again after reinstallation.

3.2.2 Prior to, periodically during, and after cleaning sampling components, contamination surveys will be performed.

3.2.3 Work in radiological areas will be performed using a Radiological Work Permit following review by Radiological Control per ALARA Work Planning procedure TFC-ESHQ-RP_RWP-C-03.

3.2.4 All waste materials are to be managed in accordance with TO-100-052.

3.2.5 When cleaning lines using air pressure, air will be vented and depressurized through an absorbent material and surveyed for contamination.
### 3.3 Environmental Compliance

3.3.1 In accordance with WAC-246-247, Washington Department of Health (WDOH) must be notified at least 7 calendar days prior to any planned operational tests of new or modified emission units that involve emissions control, monitoring, or containment systems of the emission unit. WDOH reserves the right to witness such tests [WAC-246-247-060 (4)].

3.3.2 Tank Farm ventilation systems and exhaust monitoring systems are regulated under Washington State Administrative CODE (WAC) Chapters 173-400, 173-460, and 246-247 and Notices of Construction (NOC) issued to ensure compliance with these regulations. To ensure reporting requirements are met, all planned and unplanned outages of Tank Farm ventilation systems, abatement control equipment, and exhaust monitoring systems must be immediately reported to Environmental per the Environmental On-Call List in accordance with Environmental notification procedure TFC-ESHQ-ENV_FS-C-01.

3.3.3 Comply with TFC-ESHQ-ENV-STD-06, As Low As Reasonably Achievable Control Technology (ALARACT) Requirements Standard, for Work on Potentially Contaminated Ventilation System Components.
3.3 Environmental Compliance (Cont.)

NOTE - Notification is not required for lapel air sampler samples that exceeds the limits listed in the Radiological Work Permit.

3.3.4 Report work space air samples to WRPS Environmental Protection and appropriate WRPS Shift Office for grab air samples equal to or greater than 10 DAC within the work space AND/OR contamination found during post job radiological surveillance of the posted and controlled radiological boundary area boundary that exceeds the Radiological Work Plan (RWP).

3.3.5 Equipment with removable contamination and/or work with removable contamination will be contained per the latest revision of the Containment Selection guide, Attachment A, in TFC-ESHQ-RP_RWP-C-02.

3.3.6 Pre- and post-job surveys (smears) shall be taken when opening potentially contaminated ventilation systems to take measurements, testing, or sampling in the ventilation system.

3.3.7 Notify Environmental On-Call List in accordance with procedure TFC-ESHQ-ENV_FS-C-01 for any spills/releases to the environment.

3.4 Limits

TFC-ESHQ-ENV-STD-06, As Low As Reasonably Achievable Control Technology (ALARACT) Requirements Standard

HNF-SD WM-TSR-006, Tank Farms Technical Safety Requirements

LCO 3.1, DST Primary Tank Ventilation Systems

LCO 3.4, DST Induced Gas Release Event Flammable Gas Control
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:

- Calculator
- HMI Engineering and Instrument passwords
- Communications devices (walkie-talkie, cell phones)
- Calibrated mass flow meter capable of measuring 0-4 scfm in 0.01 scfm increments
- Container for collecting condensate from Record Sampler sample lines
- Absorbent material for collecting condensate from Record Sampler sample lines

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- TO-060-106, Operate AN Tank Farm Primary Ventilation System (VTP)
- 6-FCD-648, Calibrate Hastings HFC-303 Flow Controller on AN and AW HVAC
- TO-100-052, Perform Waste Generation, Segregation, Accumulation and Clean-up
- Waste Planning Checklist
- H-14-020101, Sheet 10 and Sheet 12 Ventilation Tank Primary System (VTP) A-Train Q&M SYS P&ID
- H-14-020101 Sheet 11 and Sheet 13 Ventilation Tank Primary System (VTP) B-Train Q&M SYS P&ID.

4.3 Field Preparation

4.3.1 **CONFIRM** system/equipment is configured to allow performance of this procedure.

4.3.2 **REFER** to Figure 1 and Figure 2 for guidance on equipment nomenclature and location for each train.

4.3.3 Shift Manager/OE **VERIFY** that there are no ongoing transfers and no waste disturbing activities in AN Farm that requires this system to be OPERABLE and in operation to meet the requirements of LCO 3.4. (LCO 3.4)

____________________________ / ______________________ / ______________________
Signature Print (first and last) Date
Shift Manager/OE
4.3.4 **VERIFY** applicable STACK Flow Transmitter is within calibration.

- □ A- Train AN241-VTP-PDIT-551: ET-008251
- □ B- Train AN241-VTP-PDIT-651: ET-008252

_________________________ / __________________________ / ________________
Signature Print (first and last) Date
FWS

4.3.5 **VERIFY** applicable Flow Control Valve is within calibration.

- □ A- Train AN241-VTP-FCV-555: ET-009059
- □ A- Train AN241-VTP-FCV-556: ET-009060
- □ B- Train AN241-VTP-FCV-655: ET-009061
- □ B- Train AN241-VTP-FCV-656: ET-009062

_________________________ / __________________________ / ________________
Signature Print (first and last) Date
FWS
5.0 PROCEDURE

NOTE - Component numbers are prefixed “AN241-VTP-” unless full EIN is given.

Special Instructions

Subsections 5.1 through 5.4 (and the associated tables) can be worked independently or concurrently as directed by the Field Work Supervisor. When this procedure is being performed to support maintenance activities, the necessary sections of this procedure will be indicated in the work package, data sheets, or other maintenance procedures.

If performance of any steps in this procedure is not required for procedure completion, steps not performed shall be indicated as such by marking "N/A" in the appropriate table signoff and explained in comments section of Table 1.

Exhauster operation should be conducted per TO-060-106, Operate AN-241 Primary Ventilation System.

The faceplate “APPLY” button must be pressed for each command entered.

5.1 A-Train Quarterly Stack Flow Response Test

5.1.1 If alarms are present, ACKNOWLEDGE alarms.

5.1.2 ENSURE A-Train is running. IF performance of any section is not applicable to the exhauster being tested, as determined by the Shift Manager or FWS, MARK N/A on the Data Sheets.

5.1.3 LOG-IN AND GO TO A-Train Exhauster Process Details screen on the HMI.

5.1.4 RECORD A-Train “As-Found” flow from FI-551A. (Refer to HMI Exhauster Process Details screen)

<table>
<thead>
<tr>
<th>As-Found Stack Flow</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.1.5 RECORD As-Found Setpoint (ANA-EF-009-PID).

<table>
<thead>
<tr>
<th>As-Found Setpoint</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.1.6 ADJUST setpoint value to 100 ACFM above “As-Found” setpoint recorded in Step 5.1.4.
5.1 A-Train Quarterly Stack Flow Response Test (Cont.)

5.1.7 RECORD FI-551A is tracking satisfactorily.

<table>
<thead>
<tr>
<th>± 10 ACFM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

5.1.8 RETURN to “As-Found” Setpoint value recorded in Step 5.1.4.

5.1.9 ADJUST setpoint value to 100 ACFM below “As Found” setpoint recorded in Step 5.1.4.

5.1.10 RECORD FI-551A is tracking satisfactorily.

<table>
<thead>
<tr>
<th>± 10 ACFM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

5.1.11 RETURN to “As-Found” Setpoint value recorded in Step 5.1.4.

5.1.12 RECORD “As-Left” FI-551A on HMI.

<table>
<thead>
<tr>
<th>As-Left Stack Flow</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.1.13 RECORD any discrepancies in comment section of Table 1.
5.2 B-Train Quarterly Stack Flow Response Test

5.2.1 IF alarms are present, ACKNOWLEDGE alarms.

5.2.2 ENSURE B-Train exhauster is running.

5.2.3 LOG-IN AND GO TO B-Train Exhauster Process Details screen on the HMI.

5.2.4 RECORD B-Train “As-Found” flow from FI-651A. (Refer to HMI Exhauster Process Details screen)

<table>
<thead>
<tr>
<th>As-Found Stack Flow</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.2.5 RECORD As-Found Setpoint (ANA-EF-010-PID).

<table>
<thead>
<tr>
<th>As-Found Setpoint</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.2.6 ADJUST setpoint value to 100 ACFM above "As Found" setpoint recorded in Step 5.2.4.

5.2.7 RECORD FI-651A is tracking.

<table>
<thead>
<tr>
<th>± 10 ACFM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

5.2.8 RETURN to “As-Found” Setpoint value recorded in Step 5.2.4.

5.2.9 ADJUST setpoint value to 100 ACFM below "As Found" setpoint recorded in Step 5.2.4.

5.2.10 RECORD FI-651A is tracking.

<table>
<thead>
<tr>
<th>± 10 ACFM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

5.2.11 RETURN to "As Found" Setpoint value recorded in Step 5.2.4.

5.2.12 RECORD “As-Left” FI-651A on HMI.

<table>
<thead>
<tr>
<th>As-Left Stack Flow</th>
<th>ACFM</th>
</tr>
</thead>
</table>

5.2.13 RECORD any discrepancies in comments section of Table 1.
5.3 A-Train Quarterly Record Sample/CAM Flow Measurements

5.3.1 CHECK applicable prerequisites in Section 4.0 are satisfied.

5.3.2 OPERATE the exhauster per TO-060-106, or work package instructions.

5.3.3 IF time monitoring has not been initiated, FWS NOTIFY Shift Manager to initiate time monitoring for standby train per LCO 3.1.B. (LCO 3.1)

5.3.4 IF both exhaust trains are to be shut down, FWS NOTIFY Shift Manager to initiate time monitoring per LCO 3.1.A. (LCO 3.1)

5.3.5 IF A-Train exhauster is operating, SWITCH to B-Train exhauster per TO-060-106.

5.3.6 IF not logged in, LOG IN to HMI.

5.3.7 IF A-Train sample pump is running, TURN OFF sample pump.

5.3.8 CLOSE record sample isolation valve V-553 and CAM isolation valve V-554 in ENCL-550.

5.3.9 ENSURE the following sample pump outlet valves are OPEN:
   - V-562
   - V-572.

NOTE - Sample cabinet ENCL-550 door should remain closed as best as possible (M&TE power cords will prevent door from completely closing) in order to keep instruments within allowable temperature range greater than 40°F.

5.3.10 IF testing Record Sampler flow control valve FCV-555, PERFORM the following:

5.3.10.1 INSTALL in-line Mass Flow Meter to FCV-555.

5.3.10.2 SELECT A-Train Stack Sampler button from the HMI Exhauster Process Detail screen.

5.3.10.3 ENSURE FCV-555 is in Manual, and output is set to 4 scfm.
5.3  A-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)

5.3.10.4  **ENSURE** pump to be used is in Manual (P-564 or P-574).

5.3.10.5  **START** Sample Pump to be used (P-564 or P-574).

**NOTE** - Under signal tab in the “MAN” block, 1 is approximately 2 scfm.

5.3.10.6  **ADJUST** FCV-555 so FI-555 indicates approximately 2 scfm.

5.3.10.7  **WAIT** at least two (2) minutes to reach steady state.

5.3.10.8  **RECORD** the Record Sample flow measurement from installed inline Mass Flow Meter for FCV-555.

```
| Inline Mass Flow Meter (± 0.01 scfm) | scfm |
```

5.3.10.9  **RECORD** the HMI Record Sample flow measurement FI-555 for FCV-555.

```
| Record Sampler Flow (Exhauster display *) | scfm |
```

5.3.11  **STOP** Sample Pump selected to run.

5.3.12  **CALCULATE** percent difference AND

**RECORD** the “PASS” or “FAIL” determination in Table 1

<table>
<thead>
<tr>
<th>FCV-555</th>
<th>Initial Test</th>
<th>Retest</th>
</tr>
</thead>
<tbody>
<tr>
<td>% error</td>
<td>% error</td>
<td>% error</td>
</tr>
</tbody>
</table>

% error = \( \frac{|\text{Record Sampler Flow} - \text{In Line Flow Meter}|}{\text{In Line Flow Meter}} \times 100 \)

FAIL CRITERIA: Fails if % error >10%

<table>
<thead>
<tr>
<th></th>
<th>PASS</th>
<th>PASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAIL</td>
<td>FAIL</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

5.3.13  **REMOVE** in-line Mass Flow Meter.
5.3  A-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)

NOTE - Sample cabinet ENCL-550 door should remain closed as best as possible (M&TE power cords will prevent door from completely closing) in order to keep instruments within allowable temperature range greater than 40°F.

5.3.14  IF testing CAM flow control valve FCV-556, PERFORM the following:

5.3.14.1  INSTALL in-line Mass Flow Meter to FCV-556.

5.3.14.2  SELECT A-Train Stack Sampler button from the HMI Exhauster Process Detail screen.

5.3.14.3  ENSURE FCV-556 is in Manual, and output is set to 4 scfm.

5.3.14.4  ENSURE pump to be used is in Manual (P-564 or P-574).

5.3.14.5  START Sample Pump to be used (P-564 or P-574).

5.3.14.6  ADJUST FCV-556 so FI-556 indicates approximately 2 scfm.

5.3.14.7  WAIT at least 2 minutes to reach steady state.

5.3.14.8  RECORD CAM sample flow measurements from Mass Flow Meter for FCV-556.

| Inline Mass Flow Meter (± 0.01 scfm) | scfm |

5.3.14.9  RECORD the HMI CAM Sample flow measurements FI-556 in for FCV-556.

| CAM Flow (Exhauster display *) | scfm |
5.3 A-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)

5.3.14.10 STOP Sample Pump selected to run.

5.3.14.11 CALCULATE AND RECORD the “PASS” or “FAIL” determination.

<table>
<thead>
<tr>
<th>FCV-556</th>
<th>Initial Test</th>
<th>Retest</th>
</tr>
</thead>
<tbody>
<tr>
<td>% error = $\frac{</td>
<td>Cam\ Flow - In\ Line\ Flow\ Meter</td>
<td>}{Cam\ Flow} \times 100$</td>
</tr>
<tr>
<td>PASS</td>
<td>PASS</td>
<td></td>
</tr>
<tr>
<td>FAIL</td>
<td>FAIL</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

FAIL CRITERIA: Fails if % error >10%


5.3.15 IF percent error calculation fails for record sample or CAM flow control valves, CONTACT FWS for resolution.

5.3.16 CONTACT Engineering IF testing continues to fail after attempted resolution(s).

5.3.17 Inside ENCL-550: OPEN Record Sample Isolation Valve V-553 AND OPEN CAM Isolation Valve V-554.

5.3.18 ACKNOWLEDGE all alarms associated with test.

5.3.19 ENSURE removal of all test equipment.

5.3.20 RETURN exhauster system to the desired operating configuration by the Shift Manager/OE per TO-060-106 Operate AN Tank Farm Primary Ventilation System.
5.4 **B-Train Quarterly Record Sample/CAM Flow Measurements**

5.4.1 **CHECK** applicable prerequisites in Section 4.0 are satisfied.

5.4.2 **OPERATE** the exhauster per TO-060-106, or work package instructions.

5.4.3 **IF** time monitoring has not been initiated, FWS **NOTIFY** Shift Manager to initiate time monitoring for standby train per LCO 3.1.B. *(LCO 3.1)*

5.4.4 **IF** both exhaust trains are to be shut down, FWS **NOTIFY** Shift Manager to initiate time monitoring per LCO 3.1.A. *(LCO 3.1)*

5.4.5 **IF** B-Train exhauster is operating, **SWITCH** to A-Train exhauster per TO-060-106.

5.4.6 **IF** not logged in, **LOG IN** to HMI.

5.4.7 **IF** B-Train sample pump is running, **TURN OFF** sample pump.

5.4.8 **CLOSE** record sample isolation valve V-653 and CAM isolation valve V-654 in ENCL-650.

5.4.9 **ENSURE** the following sample pump outlet valves are **OPEN**:

- V-662
- V-672.

**NOTE** - Sample cabinet ENCL-550 door should remain closed as best as possible (M&TE power cords will prevent door from completely closing) in order to keep instruments within allowable temperature range greater than 40°F.

5.4.10 **IF** testing Record Sampler flow control valve FCV-655, **PERFORM** the following:

5.4.10.1 **INSTALL** in-line Mass Flow Meter to FCV-655.

5.4.10.2 **SELECT** B-Train “Stack Sampler” button from the HMI Exhauster Process Detail screen.

5.4.10.3 **ENSURE** FCV-655 is in Manual, and output is set to 4 scfm.
5.4 B-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)

5.4.10.4 ENSURE pump to be used is in Manual (P-664 or P-674).

5.4.10.5 START Sample Pump to be used (P-664 or P-674).

NOTE - Under signal tab in the “MAN” block, 1 is approximately 2 scfm.

5.4.10.6 ADJUST FCV-655 so FI-655 indicates approximately 2 scfm.

5.4.10.7 WAIT at least two (2) minutes to reach steady state.

5.4.10.8 RECORD the Record Sample flow measurement from installed inline Mass Flow Meter for FCV-655.

<table>
<thead>
<tr>
<th>Inline Mass Flow Meter (± 0.01 scfm)</th>
<th>scfm</th>
</tr>
</thead>
</table>

5.4.10.9 RECORD the HMI Record Sample flow measurement FI-655 for FCV-655.

<table>
<thead>
<tr>
<th>Record Sampler Flow (Exhauster display *)</th>
<th>scfm</th>
</tr>
</thead>
</table>

5.4.10.10 STOP Sample Pump selected to run.

5.4.10.11 CALCULATE AND RECORD the “PASS” or “FAIL” determination.

<table>
<thead>
<tr>
<th>FCV-655</th>
<th>Initial Test</th>
<th>Retest</th>
</tr>
</thead>
</table>
| % error = \[
\frac{\text{Record Sampler Flow} - \text{In Line Flow Meter}}{\text{Record Sampler Flow}} \times 100 \] | % error | % error |
| PASS | PASS |
| FAIL | FAIL |
| N/A | N/A |

FAIL CRITERIA: Fails if % error >10%

5.4.10.12 REMOVE in-line Mass Flow Meter.
5.4  **B-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)**

NOTE - Sample cabinet ENCL-550 door should remain closed as best as possible (M&TE power cords will prevent door from completely closing) in order to keep instruments within allowable temperature range greater than 40° F.

5.4.11  **IF** testing CAM flow control valve FCV-656, **PERFORM** the following:

5.4.11.1  **INSTALL** in-line Mass Flow Meter to FCV-656.

5.4.11.2  **SELECT** B-Train “Stack Sampler” button from the HMI Exhauster Process Detail screen.

5.4.11.3  **ENSURE** FCV-656 is in Manual, and output is set to 4 scfm.

5.4.11.4  **ENSURE** pump to be used is in Manual (P-664 or P-674).

5.4.11.5  **START** Sample Pump to be used (P-664 or P-674).

5.4.11.6  **ADJUST** FCV-656 so FI-656 indicates approximately 2 scfm.

5.4.11.7  **WAIT** at least 2 minutes to reach steady state.

5.4.11.8  **RECORD** CAM sample flow measurements from Mass Flow Meter for FCV-656.

<table>
<thead>
<tr>
<th>Inline Mass Flow Meter (± 0.01 scfm)</th>
<th>scfm</th>
<th>scfm</th>
</tr>
</thead>
</table>

5.4.11.9  **RECORD** the HMI CAM Sample flow measurements FI-656 for FCV-656.

| CAM Flow (Exhauster display *) | scfm | scfm |
5.4 B-Train Quarterly Record Sample/CAM Flow Measurements (Cont.)

5.4.11.10 STOP Sample Pump selected to run.

5.4.11.11 CALCULATE percent difference AND RECORD the “PASS” or “FAIL” determination.

<table>
<thead>
<tr>
<th>FCV-656</th>
<th>Initial Test</th>
<th>Retest</th>
</tr>
</thead>
<tbody>
<tr>
<td>% error = [\frac{\text{Cam Flow} - \text{In Line Flow Meter}}{\text{Cam Flow}}] x 100</td>
<td>% error</td>
<td>% error</td>
</tr>
<tr>
<td>FAIL CRITERIA: Fails if % error &gt;10%</td>
<td>PASS</td>
<td>PASS</td>
</tr>
<tr>
<td></td>
<td>FAIL</td>
<td>FAIL</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

5.4.11.12 REMOVE in-line Mass Flow Meter.

5.4.12 IF percent error calculation fails for record sample of CAM flow control valves, CONTACT FWS for resolution.

5.4.13 CONTACT Engineering IF testing continues to fail after attempted resolution(s).


5.4.15 ACKNOWLEDGE all alarms associated with test.

5.4.16 RETURN exhauster system to the desired operating configuration by the Shift Manager/OE per TO-060-106 Operate AN Tank Farm Primary Ventilation System.

5.4.17 ENSURE removal of all test equipment.
ANSI N13.1 Quarterly Compliance for AN Exhausters

5.5 Restoration

5.5.1 DISCONNECT and remove all M&TE connected for testing.

5.5.2 CHECK all test ports are plugged/capped.

5.5.3 RESTORE work area to normal conditions (remove barricades, etc.).

5.5.4 CHECK equipment system restoration by observing indications are consistent with expected conditions.

5.5.5 COMPLETE all applicable Data Sheets or N/A.

5.5.6 NOTIFY Operations testing is complete and system may be returned to desired configuration.

5.5.7 FWS INFORM responsible Shift Manager status of maintenance activities.

5.5.8 IF system/component passed testing AND

IF time monitoring was started per LCO 3.1, NOTIFY Shift Manager to stop time monitoring. (LCO 3.1)

5.5.9 RECORD Radiological Survey Report (RSR) number(s) or N/A.

<table>
<thead>
<tr>
<th>RSR Number</th>
<th>RSR Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.6 Acceptance Criteria

Comparison and verification of data in applicable steps of the procedure with the limits of the Data Tables satisfies the Acceptance Criteria for this procedure. Approval signatures must be completely filled out.
5.7 Review

5.7.1 FWS REVIEW AND CONFIRM the following:

- Completed Data Tables meet the acceptance criteria
- Comments sections are filled out appropriately
- Work requests needed as a result of this procedure are identified and generated
- Work request number(s) of any work documents generated as a result of this procedure, are recorded in the Comments/Remarks section of the Data Tables.

5.8 Records

This procedure is performed within a work package, as such, the procedure in its entirety will be maintained as a record per the Work Control process.

The record custodian identified in the Company Level Record Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
# Table 1 - Approval Signatures

Check Train(s) for AN Exhauster Submitted For Approved

<table>
<thead>
<tr>
<th>Train A</th>
<th>Train B</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHECK appropriate work has been performed correctly and completely. Ventilation system has been restored to operating configuration. Sign when complete.</td>
</tr>
<tr>
<td>Signature / Print (First and Last) / Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FWS</th>
</tr>
</thead>
</table>

| REVIEW for completeness. Review will include verification of documentation completion. |
| Signature / Print (First and Last) / Date |

<table>
<thead>
<tr>
<th>Environmental</th>
</tr>
</thead>
</table>

| CONFIRM appropriate tables are filled out correctly and are accurate, complete, and legible. Sign when complete. |
| Signature / Print (First and Last) / Date |

<table>
<thead>
<tr>
<th>Engineer</th>
</tr>
</thead>
</table>

Comments:

---
Figure 1 - A-Train Stack Sample and Flow System Configuration
Figure 2 - B-Train Stack Sample and Flow System Configuration

B-TRAIN
NOTE: Equipment EIN preceded by AN241-VTP-

Sample Return

Stack 296-A-45
Record Sample
CAM Sample
Sample Cabinet

RE-654A
Shrouded Probes

N13.1 Quarterly Compliance for AN Exhausters

NOTE: Equipment EIN preceded by AN241-VTP-