# Change History (≤ Last 5 Rev-Mods)

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-3</td>
<td>09/11/2018</td>
<td>Changes from Periodic Review</td>
<td>Change use type to Reference.</td>
</tr>
<tr>
<td>F-2</td>
<td>12/11/2017</td>
<td>Changes to TFC-PLN-167</td>
<td>Update Section 3.1 White Label program statement to address recent changes to TFC-PLN-167.</td>
</tr>
<tr>
<td>F-1</td>
<td>10/24/2016</td>
<td>Changes are request of electrical group for White Label program.</td>
<td>Added white label program statement to Section 3.1. Updated Radcon statement.</td>
</tr>
<tr>
<td>F-0</td>
<td>09/13/2016</td>
<td>Periodic Review</td>
<td>Update Records Section</td>
</tr>
<tr>
<td>E-0</td>
<td>10/21/2014</td>
<td>All changes are as a result of the periodic review process.</td>
<td>Delete all references to central network computer which no longer exists. All CAM operation is done locally. Revise Alarm response action to contact SM.</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for operating Eberline AMS-4 Continuous Air Monitors (CAMs).

1.2 Scope

This procedure involves obtaining readings from the Eberline AMS-4 CAMs.
2.0 INFORMATION

2.1 General Information

2.1.1 At some locations an industrial computer is included with the CAMs. This computer is installed in a location central to the farm, such as the farm instrument building.

2.1.2 The computers can be used to remotely determine operating status of individual CAMs and remotely take CAMs readings.

2.1.3 The AMS-4 CAMs have three alarms associated with them:
- Fast Alarm Concentration
- Slow Alarm Concentration
- Net Beta Count Rate.

The fast and slow concentration alarms are based on periodic averages of concentration.

2.1.4 The AMS-4 CAM consists of the main unit and a detector head.
- Both the main unit and the detector head have "acknowledge" buttons as well as their own visual and audible alarms
- The main unit has a red strobe light and a steady (High Radiation) high frequency audible alarm. For failure and status changes the high frequency alarm "chirps"
- The detector head has a red lamp and a steady high frequency audible alarm
- The acknowledge button on the main unit will acknowledge and silence the high frequency audible alarm on itself and on the detector head
- The acknowledge button on the detector head will acknowledge and silence the high frequency audible alarm on itself only. The main unit will continue its audible alarm until its acknowledge button is pressed
- The red strobe light on the main unit and the red lamp on the detector head will stay lit until the alarm condition clears even after the acknowledge button is pressed.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Non-electrical worker accessing electrical enclosures must ensure the following:

- The enclosure must have a white label indicating that it has been evaluated.
- The work activity within the enclosure does not involve:
  - Reaching around or moving electrical equipment
  - Contacting electrical connectors/connections
  - By-passing protective shielding/barriers.

3.1.1.1 Stop and notify management if these conditions cannot be met, or if discrepancies exist (e.g. conflicting or missing labels, missing or damaged protective barriers).

3.2 Radiation and Contamination Control

3.2.1 When this procedure is worked in radiological areas, an approved radiological work permit (RWP) is required. If radiological conditions or work performed falls outside the scope of the RWP, all work activities must be discontinued until a new or revised RWP has been issued in accordance with TFC-ESHQ-RP_RWP-C-03.

3.2.2 When work is performed in or when work will result in a high contamination, high radiation, or an airborne radioactivity area, then an approved work package must be developed which is reviewed by Radiological Control per ALARA Work Control procedure TFC-ESHQ-RP_RWP-C-03.

4.0 PREREQUISITES

4.1 Performance Documents

The following procedures may be needed to perform this procedure:

- TF-OR-DR-AN, AN Daily Rounds
- TF-OR-DR-AZ, AZ Daily Rounds
- TF-OR-DR-ST, ST Daily Rounds
- TF-OR-DR-EV, EV Daily Rounds.
5.0 PROCEDURE

5.1 Operate AMS-4 CAMs Locally

5.1.1 DETERMINE CAM is operating normal by observing green ready light is LIT and amber malfunction light is not LIT.

NOTE - Pressing the number 8 key pad will result in the CAM display showing a number on the top display line. Then pressing the enter keypad will result in the display showing "BETA NET COUNT RATE".

5.1.2 DETERMINE "BETA NET COUNT RATE" as follows:

5.1.2.1 PRESS number 8 on keypad AND

CONFIRM display indicates (DPM /ft³) / CPM.

5.1.3 DETERMINE “SAMPLE FLOW RATE” as follows:

5.1.3.1 PRESS number 2 on keypad.

5.1.3.2 CONFIRM display indicates flow in CFM.

5.1.4 IF CAM is in alarm, IMMEDIATELY CONTACT Shift Manager.

5.1.5 WHEN all readings and actions are completed:

5.1.5.1 PRESS (9) on keypad AMS-4 screen AND

CONFIRM display indicates "INSTRUMENT STATUS NORMAL".

5.1.5.2 ENSURE "READY" Green light is LIT.

5.2 Records

No records are generated during the performance of this procedure.