Apply VERSI-FOAM in Tank Farms

Tank Farm Maintenance Procedure

MAINTENANCE

USQ # Routine Maintenance

Table of Contents

1.0 PURPOSE AND SCOPE.................................................................................................................... 3
   1.1 Purpose.......................................................................................................................................... 3
   1.2 Scope............................................................................................................................................ 3

2.0 INFORMATION................................................................................................................................. 3
   2.1 General Information.................................................................................................................... 3

3.0 PRECAUTIONS AND LIMITATIONS.......................................................................................... 4
   3.1 Personnel Safety.......................................................................................................................... 4
   3.2 Equipment Safety......................................................................................................................... 4
   3.3 Radiation and Contamination Control ....................................................................................... 4
   3.4 Environmental Compliance......................................................................................................... 4
   3.5 Limits.......................................................................................................................................... 5

4.0 PREREQUISITES ............................................................................................................................ 6
   4.1 Special Tools, Equipment and Supplies...................................................................................... 6

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>C-1</td>
<td>09/14/2017</td>
<td>Periodic Review</td>
<td>Removed Warning in section 3.1, 4.3, 5.1, 5.2 and the line below each warning referencing contact with eyes. Referenced New SDS for Versa Foam in Section 4.1. Removed reference to MSDS in Step 4.3.8.1 third bullet. Moved Step 4.3.11 to 4.3.8.2.</td>
</tr>
<tr>
<td>C-0</td>
<td>06/24/2015</td>
<td>New procedure</td>
<td>Procedure previously existed as 7-ABS-700. Procedure reactivated and recategorized as 7-MISC-700. Periodic review identified needed changes: Deleted section on disposal of waste. Disposal will be moved to TO-100-052. Added requirement to have Eyewash Unit at job site. Added direction to evaluate use of partially used system before using new system. Updated to current standard.</td>
</tr>
<tr>
<td>B-1</td>
<td>02/07/2008</td>
<td>Comply with current standard.</td>
<td>Revised as 7-ABS-700.</td>
</tr>
<tr>
<td>B-0</td>
<td>08/1/2007</td>
<td>Periodic review.</td>
<td>Revised as 7-ABS-700.</td>
</tr>
<tr>
<td>A-3</td>
<td>10/25/2006</td>
<td>SJHAs were replaced.</td>
<td>Revised as 7-ABS-700.</td>
</tr>
</tbody>
</table>
Apply VERSI-FOAM in Tank Farms

4.2 Performance Documents.................................................................6
4.3 Field Preparation..............................................................................7

5.0 PROCEDURE.....................................................................................9
  5.1 Application of Foam ........................................................................9
  5.2 Storage of Used/Opened Foam Tanks .............................................10
  5.3 Records ..........................................................................................12
1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure involves preparation, application, storage and disposal of VERSI-FOAM products and containers. (Refer to SJHA-0098)

1.2 Scope

This procedure provides instructions for applying VERSI-FOAM in all Tank Farm Contractor (TFC) facilities and subsequent storage and disposal.

2.0 INFORMATION

2.1 General Information

2.1.1 For the best result the temperature of area where VERSI-FOAM is applied should be between 60 °F and 80 °F. Temperatures below 50 °F may result in adhesion problems due to condensation. High temperatures will result in less expansion and potential adhesion problems.

2.1.2 For applications where VERSI-FOAM is continually exposed to sun or water, it is recommended that a protective coating be applied over the foam to retard possible deterioration.

2.1.3 For spray applications, it is recommended the spray gun be held 18 to 24 inches away from the surface to be foamed. Closer application will require reduced pressure.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Appropriate PPE is identified in this procedure.

3.1.2 When atmospheric levels may exceed exposure guidelines for Part A, an approved Full Face Air-Purifying Respirator (APR) equipped with an organic vapor sorbent and a particle filter.

3.1.3 In situations of insufficient ventilation or where the potential exists to exceed part A TLV limits Self Contained Breathing Apparatus (SCBA) is required. Contact IH for ventilation evaluation.

3.1.4 Contact IH for appropriate sample plan and tank vapor hazards control.

3.2 Equipment Safety

CAUTION - The opened VERSI-FOAM system carton should be used or disposed of within 30 days of opening the system to avoid plugging of pressurized system.

3.3 Radiation and Contamination Control

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

3.4 Environmental Compliance

Should a spill occur from either Part A or Part B tanks during the performance of this procedure, the Environmental on call person must be notified.
3.5 Limits

For best performance, chemical temperatures (both chemical A & B) must be between 65°F and 80°F.

If it is present a liquid crystal temperature strip indicates the acceptable chemical temperature as follows:

- Blue Square - Indicates the temperature is too cold.
- Red Square - Indicates the temperature is too hot.
- Green Square - Indicates the temperature is correct.

VERSI-FOAM may not be used if it can come into contact with steam pipes, heat vents or areas where surface temperatures might exceed 250 °F.
4.0 PREREQUISITES

4.1 Special Tools, Equipment and Supplies

The following supplies may be needed to perform this procedure:

- Versi-Foam Part A (GHS/MSDS #075680)
- Versi-Foam Part B (GHS/MSDS #075681)
- Roof Mate Medium Grey (GHS/MSDS #066159)
- Roof Mate Light Grey (GHS/MSDS #062359B)
- Roof-Mate White (GHS/MSDS #056348E)
- Chemical resistant gloves
- Respiratory protection:
- Petroleum Jelly
- Temperature monitoring device (i.e. Thermometer, Infrared Pyrometer, or equivalent)
- Eye Wash unit with Drench Hose.

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- Site Form A-6005-593 – Respiratory Protection Form
- TO-100-052, Perform Waste Generation, Segregation and Accumulation
- SJHA-0098, Applying Versi-Foam in Tank Farms.
4.3 Field Preparation

4.3.1 IF during the performance of this procedure, a spill occurs from either Part A or Part B tanks, ENSURE the Environmental on call person is notified. (Refer to Section 3.4)

4.3.2 ENSURE all personnel performing tasks outlined in this procedure attend a pre-job briefing.

4.3.3 ENSURE that the surface of the area of application will be at the correct recommended temperature range of 60 °F to 80 °F.

4.3.4 IF present, EVALUATE use of partially used system for current job.

4.3.5 OBTAIN VERSI-FOAM system to be used.

CAUTION

The opened VERSI-FOAM system carton should be used or disposed of within 30 days of opening the system to avoid plugging of pressurized system.

4.3.6 IF system has been previously opened, ENSURE the following:
   • Carton is labeled with initial use date and the date is within 30 days of current date
   • Valve stem has been coated with petroleum jelly
   • Used applicator nozzle has been removed and discarded
   • Face of applicator gun has been coated with petroleum jelly
   • Cartons were stored in upright position
   • Carton storage area has sufficient environmental controls to ensure ambient temperature has been maintained between 60 °F and 80 °F.

4.3.7 IF any storage requirements in Step 4.3.6 are not met, GO TO Step 4.3.9.
Apply VERSI-FOAM in Tank Farms

4.3 Field Preparation

4.3.8 IF opened system is being used, PERFORM a system check as follows:

4.3.8.1 DON appropriate PPE as follows:
- Respiratory Protection
  - Full face APR or SCBA as needed
- Chemical resistant gloves

4.3.8.2 CONFIRM Eye Wash Unit is staged at the worksite.

4.3.8.3 RELEASE safety.

4.3.8.4 BRIEFLY SHOOT VERSI-FOAM to ensure chemicals feed from both tanks.

4.3.8.5 ENGAGE safety.

4.3.9 IF any storage requirements are not met in Step 4.3.6

OR

IF chemicals fail to feed from both tanks in Step 4.3.8, DISPOSE of opened system per TO-100-052.

4.3.10 IF required, OBTAIN an unopened system.
5.0 PROCEDURE

5.1 Application of Foam

5.1.1 DON PPE to the applicable activity:

**Outside of Tank Farms**
- Respiratory Protection
- Full face APR or SCBA as needed
- Chemical resistant gloves

**Inside of Tank Farms**
- Minimum RWP requirements and additional safety equipment as identified by Industrial Hygiene and work package
- Additional PPE requirements identified by the work package.

5.1.2 ENSURE surface area of application meets the following requirements:
- Within the recommended temperature range of 60 °F to 80 °F (i.e. Thermometer, Infrared Pyrometer or equivalent)
- Dry
- Free of excess debris.

5.1.3 IF present, ENSURE the liquid crystal display indicates GREEN to monitor temperature and chemicals.

5.1.3.1 MONITOR temperature of chemicals during application to ensure they are at the correct GREEN range temperature (65 °F to 80 °F) for use.

5.1.4 APPLY foam to work site.

NOTE - Step 5.1.5 can be done any time after the foam cures, usually within one minute.

5.1.5 IF directed by the shop supervisor (temperatures greater than 70 °F), APPLY protective coating to application areas that will be exposed to sun or water.

5.1.6 IF directed by the shop supervisor, PERFORM the following:

5.1.6.1 EXPEND as much unused material as possible.

5.1.6.2 DISPOSE of per TO-100-052.

5.1.7 IF directed by the shop supervisor, STORE unused material per Section 5.2.
5.2 Storage of Used/Opened Foam Tanks

CAUTION
The opened VERSI-FOAM system carton should be used or disposed of within 30 days of opening the system to avoid plugging of pressurized system.

5.2.1 IF opened systems are being stored, ENSURE the following:
- Label is on the carton with the date the system was opened
- Valve stem is coated with petroleum jelly
- Used applicator nozzle is removed and discarded (as applicable)
- Face of applicator gun is coated with petroleum jelly
- Cartons are stored in an upright position
- Carton storage area has sufficient environmental controls to maintain ambient temperature between 60 °F and 80 °F.

Weekly Check (not to exceed 7 days)

NOTE - The manufacturer recommends the system should be tested at no more than a seven (7) day interval during storage of an open system to avoid plugging.

5.2.2 USING shop tickler (not exceeding 7 days), CHECK the date the system was opened.

5.2.3 IF 14 days or more have elapsed since the system was opened, CONTACT shop supervisor to determine if system should continue to be stored.

5.2.4 IF shop supervisor determines system should be disposed of, DISPOSE of per TO-100-052.
5.2 Storage of Used/Opened Foam Tanks (Cont.)

5.2.5 IF the weekly test (not exceeding 7 days) is going to be conducted, PERFORM the following:

5.2.5.1 DON appropriate PPE as follows:
- Respiratory Protection
- Full face APR or SCBA as needed
- Chemical resistant gloves

5.2.5.2 ATTACH new applicator nozzle.

5.2.5.3 RELEASE safety.

5.2.5.4 USING disposal location designated by the shop supervisor, BRIEFLY SHOOT VERSI-FOAM to ensure chemicals feed from both tanks.

5.2.5.5 ENGAGE safety.

5.2.5.6 IF chemicals fail to feed from both tanks, DISPOSE of per TO-100-052.

5.2.5.7 WHEN foam has cured, DISPOSE of as directed by shop supervisor.

5.2.6 IF system passes the weekly test (not exceeding 7 days), RETURN system to storage per Step 5.2.1 requirements.
5.3 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.