



SAFETY MANAGEMENT SYSTEM

ARM-7.11.1 FIREFIGHTING IN PRESENCE OF MASS LOADED VINYL

Originator:

Gary McGrath

Approved By:

Al Suchy

1. Purpose

The purpose of this procedure is to provide information and establish procedures for fighting fires in areas that utilize Mass Loaded Vinyl (MLV) to crew members on the fire party. Particular attention and precautions are to be taken in preventing fires in areas where this material is installed and while performing any welding or burning.

2. References

- a) Tuff-Mass MLV (Mass Loaded Vinyl) Barrier, Material Safety Data Sheet (MSDS)
- b) Fire Control Plan, Drawing No. 65411-583-02

3. General

It has been determined that there are potential risks of fire spread with MLV. Hydrogen Chloride gas will also be generated at temperatures in the range of 120° to 150° C (248° - 302° F).

4. Location

The R/V Armstrong has been constructed utilizing the barium sulfate loaded vinyl as a sound damper which requires specific awareness when fighting fires that occur in these locations

The following information indicates the location of the MLV barrier on the Armstrong. In all cases the MLV is installed as the middle layer of an 'MLV Sandwich' with insulation on either side. In some cases it is adjacent to A-60 fire-rated insulation. This configuration will be referred to as an 'A-60 MLV Sandwich' and is indicated below:

- Machinery Room
 - Aft bulkhead and overhead: A-60 MLV Sandwich
 - Forward Bulkhead:
 - Port Bulkhead



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- Bow Thruster Room
 - Side shell, all bulkheads and overhead (1st platform to main deck)
- Auxiliary Machinery Room
 - Sideshell and overhead
- MSD Room
 - Sideshell, and overhead
- Main Control Station
 - All bulkheads
 - Deck
- Main Machinery Room Exhaust Stack
 - Forward, Inboard and aft bulkheads, main deck to Focsle deck: A-60 MLV sandwich
 - All other bulkhead areas - MLV sandwich
- Main Machinery Room Intake Trunk
 - All bulkheads
- HVAC Room
 - Forward and inboard bulkheads, overhead
- EDG Room
 - Forward bulkhead – A60 MLV Sandwich
 - Inboard bulkhead and overhead

Reference (b), the Insulation Plan, also specifies where the MLV damping is installed.

5. Procedures –

When a fire is discovered in any of the areas listed above, the firefighting party will follow standard procedures with self-contained breathing apparatus (SCBA) as specified in reference (a). No one without an SCBA will be allowed in these areas.



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- Extinguishing Media: When fighting a fire involving this material use water spray, or carbon dioxide, or appropriate dry chemical extinguishing method suitable for ordinary combustibles (Class A).
- Special Fire Fighting Equipment: Wear self-contained breathing apparatus when exposed to products in decomposition.
- Hazardous Decomposition of Byproducts: Hydrogen chlorine gas, carbon dioxide and decomposition products would result from the combustion or thermal degradation of this product.
- Conditions to Avoid: Temperatures above 400 Degrees F.
- Unusual Fire and Explosion Hazards: Foam can emit combustible gases making flashback possible. Foam will burn with high heat, evolution of black smoke, flaming droplets, and toxic products. Foam may tend to melt when burning forming flaming, molten product which could cause spread of fire. Beware of smoldering re-ignition. Foam may appear to be extinguished but may be smoldering internally or contain molten product.

6. Training

During weekly firefighting drills training shall be provided and scheduled in conjunction with any planned SCBA training. During crew changes any new crew member that is also on the fire party shall be advised of the presence of MLV and any special firefighting procedures.

7. Documentation

Records shall be kept of all training performed of new crew members listing the name and date the training took place. Refer to SMS ARM – 6.2 New Crew Orientations