



Bee Alert

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Fire Safety for Spray Foam During Construction

FIRE SAFETY SHOULD BE EVERYONE'S AND HIGH HEAT FROM CUTTING, WELD-BUSINESS ON ALL CONSTRUCTION SITES. ING, GRINDING HEATING ETC EXISTS THE PRECAUTIONS OF SPRAY FOAM INSU- DURING THE DIFFERENT STAGES OF CON- LATION LIKE ALL COMBUSTIBLE MATERI- STRUCTION. WHILE FIRES INVOLVING ALS SHOULD BE REVIEWED BY ALL SPRAY FOAM INSULATION ARE RARE TRADES AND ASSOCIATED PERSONNEL. THEY CAN HAPPEN IF THE NECESSARY THE POTENTIAL FOR FIRE TO EXPOSED PRECAUTIONS ARE NOT TAKEN TO PRE- SPRAY FOAM INSULATION TO OPEN FLAME VENT SUCH ACCIDENTS.

CAUTION

All Hot work should be completed before installation of spray foam insulation. Do not weld, cut or grind unless protection has been provided to prevent accidental ignition. All Hot Work should be conducted in accordance to NFPA 51B (*Standard for Prevention During Welding, Cutting, and Other Hot Work*)

The following safety precautions are recommended for the construction sites:

Spray Foam Contractor:

- Conduct job safety meetings with, General Contractor and other trades before, during and after spray foam application.
- Provide warning signs and labels on the job site.
- Schedule thermal and ignition barrier as soon as practically possible.
- If the spray foam is being installed near a potential ignition source, a fire watch is required.
- Never spray the rigid spray foam more than two inches in a single pass (after expansion). Spraying rigid closed cell foams too thick, too fast could lead to buildup in temperature. High temperature build-up inside the foam could reduce foam's physical properties, thermal cracking and in some extreme cases spontaneous combustion can occur.
- Train your staff to use CO₂ and dry chemical extinguishers.

Responsibility for Hot Work

Management or a designated agent shall be responsible for the safe operations of hot work activity;

- Establish permissible area(s) for hot work.
- Designate a Permit Authorizing Individual (PAI).
- All equipment shall be examined to ensure it is in a safe operating condition. When found to be incapable of reliable safe operation, the equipment shall be repaired by qualified personnel prior to its next use or it be withdrawn from service.
- Ensure that only approved apparatus, such as torches, manifolds, regulators or pressure-reducing valves, and acetylene generators, are used.
- Ensure that all individuals involved in the hot work operations, including contractors, are familiar with the provisions of NFPA 51B standard.
- Individuals involved in hot work operations shall be trained in the safe operation of their equipment and in the safe use of the process.
- Individuals involved in hot work operations shall have an awareness of the inherent risks involved and understand the emergency procedures in the event of a fire.
- Management shall advise all contractors about site-specific flammable materials including spray foam insulation.
- Where combustible materials such as paper clippings, foam shavings, wood chips, textile fibers are on the floor, the floor shall be swept clean for a radius of 35 feet.
- A fire watch is required where:
 - » Spray foam insulation is closer than 35 feet from Hot Work point of Operation
 - » Wall or floor openings within a 35 foot radius exposed spray foam insulation in adjacent areas, including concealed spaces in walls and floors.
 - » Spray foam insulation are adjacent to opposite sides of partitions, walls, ceilings or roofs and are likely to be ignited; or any other criteria are applicable as listed by OSHA under CFR §1910.752

All trades

- **Have an adequate supply of fire extinguishers in convenient locations.**
- **Any Hot Work should be approved by the Project Management.**
- **If a fire occurs that cannot be extinguished immediately, evacuate the area at once.**

Six Steps to Fire Safety

Step 1 — Conduct a safety meeting with other trades

Step 2 — Post warning signs at the site

Step 3 — Move combustible materials including foam shavings from Hot Work site.

Step 4 — Shield spray foam insulation with fire or welder's blanket.

Step 5 — Provide fire watch. Have appropriate fire extinguisher and telephone nearby.

Evacuate area if fire cannot be extinguished immediately.

Step 6 — Protect the installed foam with a thermal or ignition barrier as soon as possible.

“Foam plastic insulations are useful components if installed and maintained properly. Currently a lack of fire safety awareness may exist among a new generation of architects, engineers, and general contractors working with foam plastic insulation products. This situation needs to be addressed, and those involved should include all involved from project inception through project construction and occupancy.”

Joseph Zicherman, Ph.D.

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