



Tool Box Safety Talk No. 8

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Fire Prevention

There are fire hazards on all construction work sites. Torch mechanics must exercise diligence and caution whenever torching modified bitumen membranes to reduce the risk of building and material fires. The company emergency preparedness planning must include procedures for fire prevention when torching. Torch mechanics are responsible for the fire safety of themselves, fellow workers and the building occupants. Effective communication is required amongst parties to ensure roofing materials are applied safely and that roof top mechanical equipment is disconnected or removed prior to torching. A charged fire extinguisher shall be placed within easy reach whenever torching is occurring and may be the first line of defense should a fire occur.

Good housekeeping forms the basis of roof top fire prevention. Accumulations of packaging and debris must be moved from the work area, as they are flammable. Modified bitumen adhesives, primers and mastics are flammable and must be protected or removed prior to lighting the torch. When using these petroleum based products read the usage directions printed on the container label. Curing times will vary with each product and with changing weather conditions. Natural gas service lines are dangerous and should be removed prior to torching. Be alert to the odor of natural gas when working near roof top mechanical units. Remove filters from mechanical units as they contain dust and accumulated debris that are a fire hazard. Shut down all roof top mechanical units prior to torching as fumes or torch flame can be drawn into the unit a cause a fire if they remain operating. Modified bitumen base sheets manufactured with a poly film surface are slippery when wet or snow covered. Ensure base sheet membranes are cleaned and dried before applying cap sheets particularly during winter conditions.

Do not torch anywhere that you cannot see the torch flame at all times. Never leave a lit torch unattended at anytime. Use care when drying surfaces and materials particularly around roof openings and roof wall junctions. Never torch membranes directly to fiberboard or cover up any flammable substrates. Install membrane gussets at external and internal corners and junctions to reduce the likely hood of flame penetration at these locations. Examine the condition of existing roofing components by performing cut tests prior to torching over them. Allow primers too completely flash off prior to torching as they may be ignited by the torch if not fully dried. Shut down torches whenever leaving the work area and do not leave a lit torch unattended for more than two (2) minutes while remaining in the work area. Lay the torch on its stand when not in use. Never lay a lit torch over the roof edge, a propane cylinder or containers that could permit the torch to fall or ignite materials.

A minimum one (1) hour fire watch is recommended at the end of torching operations. For older or wooden structures extended fire watch times may be required. An experienced roofer should undertake the fire watch. The fire watch requires both visually and physically checking for fire and roofing hot spots. A bare hand placed along suspected hot spots is an effective means of locating trouble areas. An infrared detector (thermometer) is an accurate means of detecting roof hot spots. Ensure bitumen kettles are turned off and that tankers are turned down. During the fire watch check that torching equipment, including propane cylinders, are shut off, disconnected and properly stored. Be alert to any unusual odors or fumes. Check breaks or openings in the structure for signs of fire. If possible walk the interior of the building prior to leaving site for the day.

If a small fire or smoldering roofing material is located and can be easily controlled, extinguish it. Extinguish smoldering fiberboard with water, as fire extinguisher chemicals cannot be relied upon to put this type of fire out. If a large fire is detected call the fire department then evacuate the occupants of the building following the company's emergency preparedness plan. Remain on site to direct the firefighters to the fire when they arrive. Do not under any circumstance return to the roof.