TOOLBOX TALK #6

LEARNING FROM PAST FIRES

They say anyone can have 20-20 hindsight. But learning lessons from other peoples' mistakes will only help to avoid problems in the future. Recently, two construction site fires have taken the industry aback and have prompted revisions in fire safety protocol.

Fire investigators in Houston and San Francisco have gone through the rubble and interviewed workers at a pair of under-construction apartment complexes that ended up in ashes. One factor common to both sites is the possibility a jobsite welding spark ignited the fires.

In Houston, there was a report of a couple of guys on the roof doing welding. The fire also could have been fueled by 20 mph winds. Wind was not a factor in the San Francisco fire which occurred on a fairly calm day. But the fire may have created its own wind putting neighboring structures at risk as well.

Windy days like the one in Houston call for a fire watch along with the welder. They can monitor if slag or sparks fall great distances such as to lower floors or watch for winds carrying airborne sparks. If sparks carry farther than is normal, the fire watcher can stop and alert the hot worker to the greater danger and reposition the work or add protection. They can also have the situation re-evaluated and have new hot work permits issued. Remember, re-evaluation is based on site evaluations, not wind speed.

Be aware of ignition sources relative to unprotected wood and separate it with distance or protective barriers such as fire rated screens. In addition, be sure combustible materials such as oily rags, scrap lumber and sawdust are removed completely.

With welding, the type of weld can make a difference. Some more complex welding like tungsten or shielded arc welding can create a "blast of hot air" into the welding process and generate a greater spray of slag or sparks.

Sparks falling on combustible materials can be an issue but a bigger concern is work on material behind insulation that holds the heat energy inside. A fire may not ignite for up to 30 minutes after all hot work ceases. This can occur after everyone has gone home for the day. That's why a fire watch must remain in place after all hot work has been completed for the shift.

Rarely do we think about a fire on the site, but if one occurs where planning is absent, the whole job could be snuffed out.