



Company _____ Job Name _____ Date _____

Weekly Tool Box Talk: **Safety with Welding/Cutting**

Without listing all the health hazards, let's just review a few hazards that can occur in welding/cutting operations. Acetylene is one of the most commonly used fuels for gas welding, cutting and brazing. It is capable of displacing oxygen from the atmosphere, reducing it to a level below that required by your body. The major hazard is the explosion potential. Acetylene becomes unstable at excessive pressures, so do not pressurize it above 15 psi, or 30 psi.

Chromium is the primary alloying agent in stainless steel. Chromium compounds are strong oxidizing agents and are extremely toxic and irritating to the skin, eyes, mucous membranes. Although welding under normal operations would not be expected to produce hazardous concentrations of chromium compounds, welding of stainless steel should be carried out in well-ventilated areas.

Fluoride compounds are found in the coating of several types of fluxes used in welding. Exposure to these fluxes may irritate the eyes, nose, and throat. Exposure to fluoride dusts and fumes has also produced skin rashes.

Zinc is used in large quantities in the manufacture of brass, galvanized metals and various other alloys. Exposure to these fumes is known to cause metal fume fever, with symptoms similar those of common influenza.

The most effective measure of reducing exposure to fumes is to work in a well-ventilated area. Where this is not possible, portable ventilation systems can be used to extract welding fumes for your breathing zone.

One of the physical agents that can be harmful to welders is ultraviolet radiation when using arc welding. Skin exposure to ultraviolet radiation can result in severe burns. UV radiation can also damage the lens of the eye. Infrared radiation, produced by the electric arc and other flame cutting equipment may heat the skin surface and the tissues immediately below the skin surface. Use protective clothing to prevent this type hazard.

Woolen clothing is preferable to cotton because it is not readily ignited and also helps protect the welder from changes in temperature. Cotton clothing, if used, should be treated with a flame retardant. Clothing treated with non-durable flame retardant materials, should be treated again after each wetting or cleaning. Sparks may lodge in rolled up sleeves, pockets or cuffs. Sleeves and collars must be kept buttoned and pockets should be removed from the front of clothing. The legs of trousers or coveralls should not be rolled up on the outside.

Safety Recommendations: _____

Job Specific Topics: _____

M.S.D.S. Reviewed: _____

Attended By:

