

Welding and Cutting

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I want to talk today about the three “F’s” of welding: **fire, fumes, and face.**

Always check carefully for fire hazards before you start welding. Wood, paper, or other flammable materials should be removed from the area. Don't start welding where there are flammable liquids without checking with me or some other supervisor first. Wooden floors should be clean before you weld over them, and they should be covered with metal or some other material that won't burn. In some cases, it may be advisable to wet the floor-but remember this causes an added shock which you must guard against if you must weld in wet places.

Be sure there are no cracks into which sparks or slag may fall, and never allow this hot stuff to fall into machine pits. Open doorways, broken windows, similar openings may have to be protected with an asbestos curtain. Hot slag may roll along a floor, so be sure the curtain is in contact with the floor.

If you must weld near combustible materials, a fire extinguisher, pail of water, fire hose or pail of sand should be at hand. It may be necessary to have a worker stand by with a fire extinguisher to put out sparks.

If you have to weld or cut any tank or drum which has contained flammable liquids or gas, don't start your operation until an approved test shows that there is no dangerous vapor present. Don't be satisfied with somebody's say-so that the tank or drum was tested previously. Insist on a test before you start your work.

Good ventilation is a must for all welding operations. Many of these operations produce fumes that are harmful in heavy concentrations, and good ventilation is the one best method of protecting yourself against this hazard. Screens around your work must not be so placed as to prevent good air circulation. Sometimes, special ventilating equipment is necessary, and we will supply it. If you have any doubt about the adequacy of the ventilation on a job, ask me or some other supervisor for our opinion. Don't weld in a small room or tank or other closed places without first talking to me about ventilation.

Eye protection is a must on all welding jobs, and full face protection is needed on many such jobs. You've been told the type of protection to wear on your operations, and what we've told you is the kind of protection that experience shows is necessary.

Face and eye protection is needed in many operations performed by welders besides the actual cutting and welding. That's why, for instance, electrical welders need goggles as well as the regular helmet. Any welder may have to do a good deal of chipping and cleaning of metal, and this work, which may be done with the helmet raised, still can throw particles of metal at eyes. Basically, however eye protection is designed to protect you against sparks, slag and molten metal, and against the flash burns caused by radiation from the welding equipment. If you follow the rules for protective face and eye covering we give you, you won't have any face and eye injuries from your welding and cutting work.

Remember the three "F's" of welding:

**FIRE, FUMES, AND FACE
(including eyes)**

Look out for these three, and you'll be able to weld safely.

Disclaimer: Information contained in this handout is considered to be correct. If there are questions, please contact the Arkansas Workers' Compensation Commission/Health and Safety Division.