



2026 Structural Welding Safety Scope

Safety Orientation

A safety program containing a general safety overview and safe work practices will be conducted during the scheduled competitor orientation. **Attendance is mandatory for all competitors.**

Safety Task Analysis

The STA will be discussed during site orientation. All personal protective equipment must be appropriate for task and meet current ANSI standards, which have been incorporated into the Occupational Safety and Health Administration PPE regulations as follows: Eye and Face Protection ANSI Z87.1; Head Protection ANSI Z89.1; Foot Protection ANSI Z41.1.

Personal Protective Equipment

During the practical performance test, **ABC National will provide and require the proper use of the following personal protective equipment for all competitors:**

- Face shield and safety glasses; ear protection must be properly worn while grinding and buffing.
- Safety glasses; if needed over glasses will be provided.
- Hard hat (Bring your own)
- Work gloves per project manager's requirements. (Bring your own gauntlet gloves.)

Exceptions to the provided PPE, with prior approval from the project manager, are:

- Prescription safety glasses with non-removable side shields. Must meet ANSI Z87.1 standards.

Competitors must provide and use the following:

- Standard work shoes or boots (tennis shoes, sneakers or sandals are not permitted)
- Blue jean pants or work pants
- Long-sleeve, 100% cotton shirt (baggy or excessively loose-fitting clothing is not permitted)

Safe Work Practices

For welding and oxy-fuel cutting, the following must be in place:

- Guards and handles must be kept on all grinders.
- Gloves or pliers must be used when handling hot metal welds.
- Welding stubs must be kept in rod buckets.
- Fume and smoke extractor must be in place and used during welding.

For oxy-fuel cutting, the following must be in place:

- Cutting goggles with a minimum No. 5 lens must be used while cutting.
- Flint strikers must be used to light torch. (Cigarette lighters will not be allowed in the competitors work area.)
- All cutting must be done on top of tray so spark and molten slag will fall into catch tray.
- All grinding and welding, oxy-fuel cutting must be done inside of CSFM-approved welding curtains.

- Cylinders caps must be kept in place when not in use.
- Bottle carts must be used to transport cylinders.
- Regulators must be removed from cylinders and caps in place for transporting cylinders.

Cell Phones

- No cell phones are permitted before, during or after the competition.

Jewelry and Personal Grooming

Exposed jewelry is not permitted. Examples include (but are not limited to):

- Earrings (stud or dangling)
- Wrist watches
- Rings
- Studs exposed through the nose, jaw, lip, eyebrow or any part of the body that is visible
- Gauges
- Long hair must be contained (under a hat or hairnet).

Hand Tool and Power Tools

The project manager will also talk about the use of the proper hand tools, i.e., hand saw, coping saw, keyhole saw, hammer, chisels and pry bars and utility knife.

The project manager will go over the proper use of the power tools needed for your projects, i.e., miter box, circular saw, drill and impact driver. **Please visit the link(s) below to review the operators' manuals.** Always use your tools in the manner that the manufacturer intended.

[Milwaukee Cordless Grinder](#)

Safety Judging

Prior to the practical performance test, the competition project manager or judges may inspect each competitor's personal hand tools, which must meet all OSHA regulations and standards.

Judges will be present during the practical performance test to score competitors in such safety areas as the use of personal protective equipment, hand and power tool safety, clean work area, etc. Depending on the severity and/or frequency of a violation or violations, the judges, in consultation with the project manager, have the authority to disqualify competitors.

Note: Competitors continue to be judged during disassembly/clean-up activities and are subject to disqualification or deduction of points for safety violations. Please note that all PPE must be worn during this time as well.

Fire Extinguisher

Fire extinguishers are available during all open-flame operations, such as welding, soldering, brazing, etc. A fire extinguisher can be found in or around your competition area, typically in one of the columns. Your project manager will point out the location during your onsite orientation. Competitors should use the following technique to effectively and safely use a fire extinguisher.

Pull: Pull the pin at the top of the extinguisher to break the seal

Aim: Stand at a safe distance from the fire and aim the nozzle low at the base of the fire

Squeeze: Squeeze the handles together to release the extinguishing agent

Sweep: Sweep the extinguisher from side to side to cover all areas the fire may have spread to

First Aid

All injuries should be reported to the project manager immediately. The project manager will determine the appropriate action, including assistance from on-site EMT personnel.

Smoking and Tobacco Procedures

Smoking is only permitted during breaks, and you will be escorted to a pre-determined location. Smokeless tobacco also is prohibited during competition. E-cigarettes and vapor cigarettes will follow the same procedures for smoking.

Emergency Evacuation and Exits

At your site orientation, your project manager will go over the emergency evacuation and meeting location plan, exits and fire extinguishers.