

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

Competitors will be instructed on how to fill out the STA and will be graded on accuracy, completeness, and job planning.

NCC Nine

The NCC Nine will be covered in detail with the competitors.

Personal Protective Equipment

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; and Foot Protection ANSI Z41.1. There are no ANSI standards for gloves; however, selection must be based on the performance characteristics of the glove in relation to the tasks to be performed. During the practical performance test, **ABC National will provide and require** the proper use of the following personal protective equipment for all competitors:

- Ear protection
- Safety glasses and face shields
- Hard hat (except for welders)
- General work gloves

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

- Prescription safety glasses with side shields
- Prescriptive goggles
- Task-specific gloves per industry standards, designed to protect against sharp edges or high heat

The safety scope for the pipefitting competition will be explained to the competitors on the floor during the site orientation.

Competitors will be handling material; working with vises; cutting pipe with an electric bandsaw or a threading machine; grinding pipe with a 4-inch electric grinder; threading pipe with a threading machine; fitting pipe while connections are being tack welded; and making threaded connections, using hand tools such as: pipe wrenches, hammers, combo wrenches, and lockjaw pliers. All of these tasks present specific hazards. Be sure you are familiar with these types of tools and equipment. Also see below for recommended safety usage of the power tools you will be required

to use:

- [Milwaukee Cordless Grinder](#)
- [Milwaukee Cordless Band Saw](#)
- [Wheeler Rex 3/4" Threading Machine](#)

Competitors must use the following:

- Steel toe boots, hard hats, safety glasses, appropriate work pants and short-sleeve shirt are required to enter competition area.
- Earplugs are required in competition area once competition begins.
- Gloves are to be worn at all times when handling material or tools.
- The only exception is when operating the threading machine or applying Teflon tape to threads. Gloves are not to be worn while the machine is rotating only. Gloves must be put back on and the machine turned off to handle the material and equipment parts.
- Face shield must be worn in the down position when grinding.
- A long-sleeve work shirt must be worn during spark or flame producing activities such as grinding and tacking.

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)

Housekeeping

Housekeeping is a must. Each competitor will be assigned to a workstation with limited space. Keep your work area orderly and free of trip hazards.

Tool Usage

- All tools must be used in the manner for which they were designed.
- Handles must stay on grinders and two hands used. Do not hold material in one hand and grind with the other. Use the provided vise to hold material.
- Watch for pinch points when using tools, hammers, etc.

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. For example, "mushroomed" heads on chisels are not permitted. 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/cleanup activities and are subject to disqualification or deduction of points for safety violations.

First Aid

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

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

Smoking and Tobacco Procedures

Smoking is only permitted during breaks, and you will be escorted to a pre-determined location. There will be no smokeless tobacco allowed during the competition. E-cigarettes and vapor cigarettes will follow the same procedures. The project manager will go over the location of the restrooms.

Emergency Evacuation and Exits

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