



Robot Program and Control System Access Safety Guide

Category: Access Control

Audience: IT, engineering, programmers, supervisors

Badge: Controls

Guidance for protecting robot programs, user access, backups, networked controls, and change control for robotic welding systems.

Important limitation: This document is a general planning aid only. It does not replace OSHA requirements, employer safety programs, equipment manuals, SDS review, qualified risk assessment, training, lockout/tagout procedures, PPE selection, or competent safety review.

Access Management

- Use named user accounts or site-approved access control where supported.
- Limit edit/program/admin access to authorized personnel.
- Remove access when personnel change roles.

Program Integrity

- Back up robot programs, welding schedules, parameters, and configuration files before significant changes.
- Use change logs for production-critical edits and recovery actions.

Network and Media Controls

- Follow IT policy for USB media, remote access, network segmentation, vendor support sessions, and software updates.
- Do not expose robot controls directly to untrusted networks.

Field Checklist

Item	Verified	Notes
Authorized users reviewed		
Program backups current		
Change log used		
USB/media controlled		
Remote access approved		
Network policy reviewed		
Admin access limited		

Reference Basis

- OSHA 29 CFR 1910 Subpart Q - Welding, Cutting and Brazing.
- OSHA 29 CFR 1910.147 - Control of Hazardous Energy (Lockout/Tagout).
- NIOSH welding fume and manganese exposure resources.
- RAS equipment planning information for robotic arc welding systems using 480V / 60Hz / 3-phase power, RAS-500PR power supply, water-cooled torch packages, torch cleaning, and wire cutting stations.

Revision: RAS Safety Knowledge Base expanded safety resource set. Verify against current site-specific rules before use.