



Operator Training and Competency Sign-Off Guide

Category: Training

Audience: HR, safety, supervisors, trainers

Badge: Training

Framework for documenting operator, programmer, maintenance, and supervisor training 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.

Training Roles

- Define operator, programmer, maintenance, supervisor, and affected-employee training requirements.
- Document authorized users for robot operation, programming, maintenance, and lockout/tagout tasks.

Required Training Topics

- Robot motion hazards, welding hazards, guarding, E-stops, fume controls, PPE, program selection, dry-run, torch cleaning, wire cutting, recovery, maintenance, and reporting.

Competency Verification

- Use written checklists, observed operation, supervisor sign-off, retraining triggers, and refresher intervals.

Field Checklist

Item	Verified	Notes
Role assigned		
PPE training complete		
E-stop training complete		
Program selection observed		
Dry-run observed		
LOTO role documented		
Supervisor sign-off complete		

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.