ACTIVITY HAZARD ANALYSIS	JSABuilder

Date Prepared:

AHA No.: JSABuilder Sample Library - 4 (AHA - short)

Project Name: General weld

Activity/Work Task: Electric Arc Welding

Dept. / Div. / Section: Facility Maintenance

Activity Location(s): Welding Shop

Prepared By: Name Person 2

Task Start Date:

Task Duration: 2 hours

Task Supervisor: Name Person 1

Reviewed By: Name Person 3

Overall Risk Assessment Code (RAC): M

Risk Assessment Code Matrix

E=Extremely High Risk H=High Risk M=Moderate Risk L=Low Risk		Probability				
		Frequent	Likely	Occasional	Seldom	Unlikely
Severity	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

Job Steps	Hazards	Actions to Eliminate or Minimize Hazards	RAC
1. Sign in and inspect (Step 1)	- Welding/Cutting/Burning Equipment - Wires, cables, hoses	- Before setting up the welding shop, visit the Admin desk to sign in. - Inspect arc welding equipment cables and connections; look for loose connections, frayed insulation on electrode holders and cables (see photo), make sure electrical cables are dry (complete safety checklist). - Required controls: certified welder, ergonomic training for the task, hot work training, proper housekeeping, monitoring hazardous atmosphere, proper operating procedures, safety checklist.	L

Step 1 Image:

2. Steps 2 - 6	- x--- NA ---x	Steps 2 - 6 have been removed to keep this sample to a reasonable length.	L
3. Perform the weld (Step 7)	- Arc rays - Combustible materials - Electrical equipment (transformers, switching gear, breakers, high voltage lines) - Ignitable materials and liquids - Infrared (IR) - Light (optical) radiation (i.e. welding operations, etc.). - Repetitive motion or other ergonomic concerns - Rolling or pinching objects - Sharp objects - Slag splatter - Sparks - Ultraviolet (UV) - WELDING FUMES AND GASES - Welding/Cutting/Burning Equipment	- Follow manufacturer recommended procedures, lessons learned and experience. - If possible, position shelf so that head is not in fumes while welding. - If possible use sub arc process to minmimize light and fumes, and/or minimize the production of welding fumes by using the lowest acceptable amperage and holding the electrode perpendicular and as close to the work surface and possible. - Keep electrode moving. Tack as appropriate for project and metal type. - Finish the weld. - Required PPE (see photo): boots (OSHA electrical), fire resistant clothing/coveralls, longs pants, long sleeved shirts/coveralls, fire resistant gauntlet glove, safety glasses (see manual for lens shade requirements for welder & spotter), side shield, welding hood, welding jacket & apron.	M

	- Wires, cables, hoses		
Step 3 Image: 			
4. Steps 8 - 9	- x--- NA ---x	Steps 8 - 9 have been removed to keep this sample to a reasonable length.	M
5. Remove excess slag from welded material (Step 10)	- Electrical equipment (transformers, switching gear, breakers, high voltage lines) - Hand tools - metal chips - Repetitive motion or other ergonomic concerns - Sharp objects - Sparks - Wires, cables, hoses	When welded material has cooled, use chipping hammer or grinder to remove excess slag from weld (see photo). Secure material to workbench with clamps as necessary, before chipping. FACE SHIELD IS REQUIRED FOR THIS ACTIVITY TO PROTECT FROM FLYING DEBRIS. Be alert to fingers and pinch points and struck-by potential.	M

Step 5 Image:

6. Steps 11 - 12	- x--- NA ---x	Steps 11 - 12 have been removed to keep this sample to a reasonable length.	L

Equipment	Inspection	Training
Arc welder	- Daily - general use inspection every 1 day. - Each job - pre-inspect before each job (may be multiple times per day) every 1 day.	- Competent person - Emergency operations training - Normal operations training
Grinder (if used)	- Daily - general use inspection every 1 day. - Each job - inspect prior to use each job (multiple times per day) every 1 day.	- Competent person - Emergency operations training - Normal operations training

Involved Personnel: Name Person 1, Name Person 2