

Oxyacetylene Cutting - JSA - B

en-US · Technical failure review · v1.0 · 2026-10-14 · Sources: article section 9

Site: | Item ID: | Work area:

Approval	Work supervisor	Technical reviewer	Release / handover authority

1. Job details and team signatures

Date / time	Location / area			Assessor		Supervisor	
Team signatures							

2. Conditions and hold points

Stage	Time	Location / area	Environment / readings	Item / condition	Controls	Plant / tools	Approval / signature
HP-0 Start							
HP-1 Inspect gas equipment							
HP-2 Support cut material							
HP-3 Ignite and cut							
HP-4 Shut down supply							

Complete after actual checks. Recheck after changes, defects or shift handover.

3. JSA risk assessment

Job stage	Hazards and effects	Failure factors	Technical and procedural controls	Site verification	P	S	R	A
1. Arrange cylinders and zone	1. Hose damage 2. Spark ignition 3. Falling-piece strike	1. Hoses cross sharp traffic path 2. Openings unprotected 3. Lower area occupied	1. Protect and separate hoses 2. Control all spark destinations 3. Exclude people below	1. Hose route and identification 2. Opposite side and openings 3. Fire watch and lower boundary				
2. Inspect gas equipment	1. Fuel-gas leak 2. Reverse flow 3. Flashback propagation	1. Wrong gas components 2. Protection mismatch 3. Leak checks incomplete	1. Match gas-rated components 2. Verify specified safeguards 3. Perform approved leak checks	1. Cleanliness and contamination 2. Protection device configuration 3. Leak method and results				
3. Support cut material	1. Residual-material explosion 2. Fire spread 3. Fume inhalation	1. Unknown vessel accepted 2. Hidden combustibles retained 3. Extraction inappropriate	1. Hold unknown-history items 2. Shield or remove combustibles 3. Provide material-specific controls	1. History and exclusion scope 2. Fire precautions and watch 3. Fume control and protection				
4. Ignite and cut	1. Hose burn-through 2. Continuing flashback 3. Eye injury	1. Hose crosses cut path 2. Abnormal sound ignored 3. Filter protection unsuitable	1. Keep hoses clear of heat 2. Stop for abnormal behavior 3. Use suitable eye and body PPE	1. Hose and flame direction 2. Flame and equipment condition 3. Operator and nearby protection				
5. Shut down supply	1. Smoldering fire 2. Hot-piece burns 3. Defective part reuse	1. Watch ends too early 2. Hot pieces unmarked 3. Abnormal equipment retained	1. Control supply and residual gas 2. Maintain required fire watch 3. Identify hot or defective items	1. Hose storage and protection 2. Watch duration and release 3. Hot-piece and defect status				
6. Hold abnormal system	1. Repeated flashback 2. Cylinder rupture 3. Contaminated-part reuse	1. Cause not investigated 2. Heat exposure ignored 3. Service history missing	1. Follow safe emergency response 2. Evacuate heated-cylinder area 3. Require qualified disposition	1. Leak flame and sound facts 2. Heat exposure and notifications 3. Service and restart evidence				

P/S/R/A: Complete only after actual site assessment using the site risk method.

4. Pre-work checklist

☐ Hose route and identification	☐ Cleanliness and contamination	☐ History and exclusion scope
☐ Hose and flame direction	☐ Hose storage and protection	☐ Leak flame and sound facts
☐ Fire watch and lower boundary	☐ Operator and nearby protection	☐ Service and restart evidence