Flowline repair with hot work

Cut and replace a section of flowline, welded joints

Starting point. Hot work needs its own permit. This JSA does not replace that permit and does not stand in for it.

Site _____ **Date** _____ **Crew** _____ **Job number** _____

#	Task	Hazards	Controls	Who	Residual
1	Isolate, depressure and drain the line	Stored pressure; trapped fluid; H2S	Close and tag valves both sides; bleed and verify zero at the work point, not at the valve; drain to a container; monitor running	Operator or pumper, welder verifies	Medium
2	Gas test and permit the hot work	Flammable vapor in the line or the ground around it; wrong test point	Test at the cut points and inside the line where possible; permit signed before any spark; retest after any break longer than the permit allows	Fire watch, welder	Medium
3	Clear and wet the area	Dry grass; oil-soaked ground; combustibles within reach of slag	Clear or wet the ground for the permit distance; remove or cover anything that burns; extinguisher and water at the work point	Helper	Low
4	Cut out the bad section	Pinch and drop when the section comes free; residual fluid in the pipe; sparks and slag	Support both sides before the second cut; catch pan under the cut; helper clear of the drop path; face shield and leathers	Welder, helper	Medium
5	Fit and tack the new section	Crush between pipe and ground; misalignment forcing a hand into the joint	Fit with a clamp or a second person, never a hand in the gap; check alignment before the tack	Welder, helper	Medium
6	Weld out	Burns, fume, arc eye for anyone watching; fire from slag	Fire watch stays on the job and for the time the permit requires after; nobody watches the arc without a lens; fume upwind	Welder, fire watch	Medium
7	Inspect the weld and pressure test	Failure under test; standing in front of a blind or a cap	Test to the pressure the procedure names, not higher; nobody in front of end caps or blinds during the test; hold and check	Welder, operator	Medium
8	Return to service and clean up	Leak at the new joint; forgotten tag or blind	Walk the line under pressure; remove every tag and blind you installed and count them; fire watch final check before leaving	Operator, fire watch	Low

STOP WORK. Any one of these and the job stops until it is settled.

1. Any gas reading above the permit limit
2. Wind above what the permit allows
3. Anyone not on the JSA entering the area
4. A leak during the test

Flowline repair with hot work (continued)

Crew sign-off

Everyone on this job signs before work starts. A JSA filled in by one person in the truck is a form, not a JSA.

Name (printed)	Signature	Time on	Time off

Supervisor. Sign here if any step is still High after its controls, before that step starts.

Supervisor _____ **Date** _____