






The following are guidelines. Client or Project Specifics may superseded this document. Consult Project Manager with conflicts.

Task Step	Step Hazard	Hazard Mitigation	Picture
<p>BEFORE ATTEMPTING THIS PROCESS!</p> <p>Have you been through training specifically on the proper use of Isolation Plugs?</p>		<p>Persons unfamiliar with the task should receive proper training prior to attempting this work.</p>	
<p>Review LOCKOUT & TAGOUT 2.14 of the EH&S Manual</p> <p>Does owner have site specific plan?</p>			
<p>1. Inspect equipment for damage to:</p> <ul style="list-style-type: none"> A. Plug Seals B. Purge hoses C. Gauges D. Valves E. Air (Medium) Provider F. Grinders, cord, gfci, etc. <p>Inspect to make sure all vent and purge ports are clear of blockage</p>	N/A	N/A	
<p>2. setup</p> <ul style="list-style-type: none"> A. loto system B. confirm line is drained C. cold cut line D. deburr pipe edges with file. E. connect pressure gauge to upstream monitor port. F. connect long hose (ie:50') to upstream monitor port and locate well downwind of weld area. G. clean and dry the pipe ID 	<ul style="list-style-type: none"> A. N/A B. Product spills C. Line shift, collapse D. Cuts, plug seal damage E. N/A F. Fire, vapor exposure G. N/A 	<ul style="list-style-type: none"> A. Follow Loto procedure B. Rod out drain valve C. Confirm line is supported and braced. D. File or grind sharp edges E. N/A F. Confirm hose is down wind and a safe distance G. N/A 	
<p>3. Installation</p> <ul style="list-style-type: none"> A. install the plug so both seals are inside the pipe 6" to 12" from weld B. tighten hex nuts on plug until just snug in pipe. The fill port and vent fittings should be at 12 o'clock and 6 o'clock. C. install pressure gauge test assembly to seal cavity port. D. introduce medium into cavity of isolation tool E. visually inspect for leakage around plug seals. When no leaks have been found and pressure gauge holds steady hot work can begin. F. monitor isolation as work is being performed. 	<ul style="list-style-type: none"> A. Heat damage to plug seals B. N/A C. N/A D. N/A E. N/A F. Fire, vapors, plug push out 	<ul style="list-style-type: none"> A. Measure and confirm distance B. N/A C. N/A D. N/A E. If leaking, tighten up on hex nuts F. Monitor temperature of plug to touch. If too warm stop welding till cool down of plug. If upstream pressure gauge starts to show positive pressure, stop work and investigate problem. <p>Never stand directly in front of isolation plug.</p>	
<p>4. Plug Removal</p> <ul style="list-style-type: none"> A. ensure all back pressure is released from pipe. B. Relax seal by loosening hex nuts. 	<ul style="list-style-type: none"> A. Product spill, fire B. Same as above 	<ul style="list-style-type: none"> A. After weld has cooled slowly remove plug. Have bucket available to catch possible minor drainage. B. Same as above 	

TASK SAFETY PROCESS



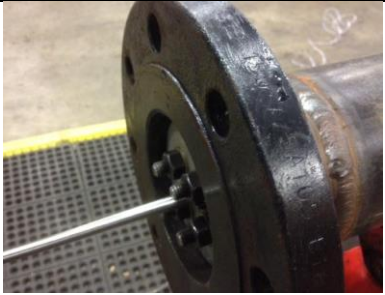

Title: Isolation Plugs
Revision Date: N/A

TSP Number: P0008

Issue Date: 1/29/2014

Reviewed By: Doug Patton, Ron Beverly, Chad Smit, Brad Bechinske

The following are guidelines. Client or Project Specifics may superseded this document. Consult Project Manager with conflicts.

<p>5. Weld Test A. slide plug till seals straddle weld B. tighten hex nuts to expand plug seals. C. fill cavity with test medium and bring up to test pressure D. Release pressure and remove plug.</p>	<p>A. N/A B. N/A C. Medium leakage D. High pressure medium</p>	<p>A. N/A B. N/A C. Monitor plug removal D. Stand to the side of plug</p> <p>Verify max test pressure allowable per plug manufacturer</p>	
<p>6. Clean and inspect equipment for damage</p>	<p>A. Check seal for cuts and scarring. Clean ports.</p>		

SPECIAL NOTE: **Items in RED indicate previous incidents**

Specific training required to perform this task.