

**Ethanolamines/Glycol Ethers  
Tier 3 Procedure**

**Section Number:** 1808  
**Issue Number:** 1.1  
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**Title:** Line opening for lines containing flammables  
**References:** Glossary of equipment identification (txt #114)

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## **1808 Line Opening For Lines Containing Flammables:**

### **1.0 Objective:**

- 1.1 To provide a procedure for the safe and effective opening of lines and equipment containing flammable products.

### **2.0 Scope:**

- 2.1 The division has installed and energized several new deep well rectifiers in order to provide increased cathodic protection and reduced pipeline corrosion for both underground and aboveground piping in division pipeways. This additional voltage will result in an increased need for precautions against arcing due to additional stray currents during any process in which mating surfaces are being separated, such as line openings and valve or spool removal both in division pipeways as well as inside the plant. Increased protection is provided using a jumper across the opening whenever performing any of the above type activities on lines containing flammables. This procedure is not necessary if no flammables are present and this can be ascertained prior to flange or mating surface separation by checking a bleed, etc. This procedure does not supercede other line opening procedures/requirements, but should be used in addition to those for flammable containing line openings.

### **3.0 Responsibility:**

- 3.1 It is the responsibility of the operations supervisor and the lead senior operations specialist to ensure that this procedure is fully complied with.
- 3.2 It is the responsibility of the senior operations specialist and the operations specialist to ensure that this procedure is executed in a safe and efficient manner.

### **4.0 Procedure:**

- 4.1 Determine if flammables are present in the system via a bleed. If present, the following procedure must be used. If not, line opening can be done without the use of jumpers.
- 4.2 Inspect the jumpers to insure that the cables, connections, and parts are in good shape.

- 4.3 Remove the paint, rust, and debris from a 6" by 3" area on top of the pipe in two locations on either side of where the work is to be performed (either side of the opening).

**4.0 Procedure: Cont'd.**

- 4.4 Attach the jumper assembly at the prepared locations as follows:
- 4.5 On magnetic materials (carbon steel, chrome-moly, nickel, etc.) the magnet will attach itself and should remain so.
- 4.6 On non-magnetic materials (titanium, 300 series SS, Hastelloy, Monel, etc.) the magnet can be held in place using nylon tie wraps tightened under the handle of the jumper.
- 4.7 NOTE: For best results, the pipe and jumper ends must be free of debris.
- 4.8 The jumpers shall be in place during both the separation and reassembly phases of the job.
- 4.9 Repair the paint where the magnets were attached.

**5.0 Revisions:**

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