

Ethanolamines/Glycol Ethers

Tier 3 Safework/Operating Procedure

Section Number: 806
Issue Number: 1.4
Original Date: 01-03-92 **Author:**
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Title: Warming Up 475, 235 And 30 Pound Steam Headers
References: Glossary Of Equipment Identification (Text # 114)

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806. Warming Up 475, 235 And 30 Pound Steam Headers

1.0 Objective:

- 1.1 To place steam headers in service in a safe and efficient manner without damage to equipment or injury to personnel.

2.0 Responsibility:

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

3.0 Safety notations:

- 3.1 Block safety equipment is required for this job. Rubber boots are recommended.
- 3.2 Hot condensate and steam are the most dangerous chemicals we handle. Be careful.

4.0 Special Notations:

- 4.1 Keep in mind a water hammer can occur in dead headed lines, so make sure the line is open at each end and cold condensate drained out.
- 4.2 Hearing protection may be needed when bleeding steam.
- 4.3 The steam headers should be put in service in this order, 475# steam first, 235# second, 30# last.

5.0 Procedure:

- 5.1 475# header:
- 5.2 Before opening the steam to the block header, open all bleeds on the 475# steam header.

5.3 Notify the power plant that we are about to take a steam flow.

5.0 Procedure: Cont'd.

- 5.4 Make sure all condensate has been drained out of steam line and open the 475# steam pressure control valve wide open.
- 5.1 Gradually open the 1" bypass around the big 475# block valve at the block limits. As you begin to get hot condensate and steam out the bleeds, you can slowly open the bypass more.
- 5.5 After getting hot steam out of the bleeds, all the bleeds can be cut back except those at the ends of the line.
- 5.6 The steam needs to blow good and strong from the bleeds for about an hour. While it is blowing, begin warming the condensate header.
- 5.7 When the condensate header is warm. Ease the steam to the condensate header and close all the bleeds.
- 5.8 The 475# steam header can then be pressure controlled with the 475# pressure controller, and the 475# block valve at the block limits can be eased opened fully. Then close the 1" bypass around this valve.
- 5.9 235# steam header
- 5.10 For warming up the 235# steam header follow the same procedure as the warming of the 475# header. Bleeds are taken and handled in the same way as when the 475# steam header was put in service.
- 5.11 30# steam header
- 5.12 Start up the 30# steam header with low pressure steam from d-510 if available. If not use 235# steam from the 30# steam header control loop. Bleeds are taken and handled in the same way as when the 475# and 235# steam headers were put in service.

6.0 Revisions:

Revision #1	04-20-93	Yearly Review
Revision #2	12-21-94	Yearly Review
Revision #3	02-23-95	Deleted requirement for "cotton" gloves in Section 3.1
Revision #4	10-18-95	Monthly Procedure Review