	<b>GILES CHEMICAL ~ A DIVISION OF PREMIER CHEMICAL LLC</b>		
	<b>COMPANY PROCEDURE</b>		
	<b>Breaking Lines</b>	Page : 1 of 3	Revision : 0 Date : 09/15/07
	Author: <b>Jason Bumgarner &amp; Robert Willis</b>		Report #:

**Personnel responsible:**

All Production and Maintenance Personnel

**Safety equipment:**

All safety glasses and appropriate safety apparel is to be worn at all times. This includes wearing the appropriate protection for high heat application.

**Summary:**

Before unhooking a hose or breaking a line precautions are to be taken to prevent injury. Giles chemical has Steam Lines, Acid lines, Hot Brine Lines and Air lines under pressure. Each of these can cause personal injury if improperly disconnected.

**Warnings:**

- Extremely hot thick brine is produced during the beginning of our process. This brine can be from 60°C to 104°C and can be very dangerous.
- Steam lines can be under pressure and extremely hot.
- Air lines can be under pressure.
- Acid Lines – Proper PPE and Training is to be used before attempting to work with an Acid line

**Procedure:**

○ **Normal Production ~ Breaking Brine / Mud Lines, Steam Lines and Air lines**

• **Brine Lines**

1. When unhooking a brine line, every effort is to be made to ensure line is empty of hot brine.
  - a. ( Valves closed, Line washed out, Pump left on etc.. )
2. If a by-pass valve or pressure relief valve are present, they must be used to relieve the pressure before disconnecting
3. While standing clear of the line, open one ear on the quick coupling and gently shake the line. If any excess pressure or liquid is in the line it should be released through the ear hole.
4. Once pressure is released and liquid has drained, open the other ear on the quick coupling and with caution disconnect hose.
5. Always wash lines out after disconnecting.


• **Air Lines**

1. When unhooking an air line, every effort is to be made to ensure line is not pressurized.
  - a. Air lines must have a pressure relief valve – see Maintenance if no such valve is present
2. While standing beside the line's path, disconnect line.

• **Steam Lines**

***Live steam can be extremely dangerous. Use caution when handling steam***

1. When unhooking a Steam line, every effort is to be made to ensure line is not pressurized.
  - a. Steam lines must have a pressure relief valve – see Maintenance if no valve is present
2. Proper PPE is required with unhooking a steam line
  - a. Steam resistant gloves and face shield
3. While standing beside the line's path, open one ear on the quick coupling and gently shake the line. If any excess pressure is in the line it should be released through the ear hole.
4. Once pressure is released and steam / liquid have drained, open the other ear of the quick connect coupling and with caution disconnect hose.
5. Always wash out or blow out line after disconnecting
  - a. Use caution and only crack valve ( 1/8 valve max ) when blowing out line.

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**Procedure:**

○ **Normal Production ~ Breaking Acid lines**

● **Acid Lines**

*Acid is extremely dangerous. Use caution and proper PPE when handling Acid lines*


1. Full PPE is required before working with Acid
  - a. Acid suit
  - b. Acid gloves
  - c. Face shield
2. When unhooking an Acid line, every effort is to be made to ensure line is empty.
  - a. Line should be blown out using air
  - b. Pick the line up and test its weight.
3. Acid lines must have a pressure relief valve – see Maintenance if no valve is present
4. While standing beside the line's path, open one ear on the quick coupling and gently shake the line. If any excess pressure is in the line it should be released through the ear hole.
5. Once pressure is released open the other ear of the quick connect coupling and with caution disconnect hose.

○ **Maintenance ~ Breaking Brine / Mud Lines, Steam Lines and Air lines**

1. Notify lead operator of the mechanical device and/or line that will be removed from service
2. Maintenance, working in coordination with production, will be responsible for closing all valves, draining tanks, etc.
  - a. Follow procedure for Normal line removal above
3. Care must be taken to assure that liquid cannot enter system through by-pass valves, etc...)
4. Put your lock on the device and/or valve isolating the line to be removed from service.
5. Attach your lock out tag to the device
6. Check and make certain a start of the equipment will not jeopardize employees working in the area
7. Activate the start button and/or initiate line sequence to ensure that equipment will not run and line will not be filled.
8. Complete the work to be done and then replace all guards and/or safety devices disabled.
9. Remove locks and tags
10. Notify lead operator that the mechanical device is operation and available for production.

○ **Acid Lines**

1. Proper Full PPE is required before working with Acid
  - a. Acid suit
  - b. Acid gloves
  - c. Face shield
2. Production personnel must be notified before unhooking an acid line.
3. When unhooking an Acid line, every effort is to be made to ensure line is empty.
  - a. Line should be blown out using air
  - b. Pick the line up and test its weight.
4. Acid lines must have a pressure relief valve – see Maintenance if no valve is present
5. While standing beside the line's path, open one ear on the quick coupling and gently shake the line. If any excess pressure is in the line it should be released through the ear hole.
6. Once pressure is released open the other ear of the quick connect coupling and with caution disconnect hose.

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## TRAINING DOCUMENTATION

	EMPLOYEE	TITLE	SIGNATURE	DATE
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