

Manual Section 7	Issue Date 11/25/09	Revision Date 06/15/21	Policy Number LLCP-077
<b>Hot Bolting</b>			

## Purpose

Assure employee understanding during processes that require hot bolting

## Scope

All LLC Companies including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, Inc., and GWIS, Mack Steel, NuWave, Sun Industries; hereafter identified as “Company”.

## General Practice

Hot Bolting is the changing of bolts while a line is in operation. Hot Bolting shall be performed in accordance with the established Minimum Requirement Hot bolting can only be performed by utilizing cold cutting (i.e. hacksaw, air-operated band saw, nut busters, impact wrench). **Flanges shall have a minimum of 8 bolts** to perform such operations. Replace only one bolt at a time. NOTE: Cutting torches shall never be used. Flanges with severely rusted bolts shall not be hot bolted.

- Flanges with less than eight bolts are not to be hot bolted under any circumstance.
- Clean flanges and inspect studs and nuts to make sure that none are severely corroded. Flanges showing signs of leakage or with severely corroded studs or nuts shall not be Hot Bolted. If a bolt or stud is removed and found to be severely corroded, leave the remaining studs and nuts in place until the line has been bled down and purged. Do not continue Hot Bolting.
- Use only mechanical means to remove nuts (wrench, nut buster, saw, impact wrench, etc.). NEVER UTILIZE A CUTTING TORCH or electrical power tool to remove nuts and studs.
- Remove only one stud at a time, and replace with new stud before removing another. Stud and Bolt replacement shall be staggered.
- If a bolt or stud cannot be removed by mechanical means, leave it until the line is bled down or purged.
- Avoid pinch points and strike points when performing cold cuts. Wear gloves and never apply more pressure than the blade can handle.
- Ensure that the wrench or socket used for the job is the correct size and type, fits over the entire nut and is in good condition.
- Chisels should not be used except when necessary and a gas detector must be used throughout the process with no hydrocarbons present. Only chisels in good condition with no mushroom head shall be used. Chisels should be held with grip pliers or special device and a face shield shall be used in conjunction with standard Safety Glasses.
- Hammer wrenches should be held by rope of sufficient length, and the person holding the rope shall stay out of the line of fire.
- When utilizing a sledge hammer, the hammer should be the appropriate size for better control and the person swinging the hammer shall observe surroundings to prevent the striking of other objects causing misses or uncoordinated swings.
- Procedures for emergency evacuation & communication shall be established prior to start of permitted work.