

**April 18, 2018**
**PURGING WITH NITROGEN**
**PURPOSE/APPLICATION**

Nitrogen purging is an industry standard technique for the replacement of a hazardous or undesirable atmosphere with an inert dry atmosphere. The two most common methods of purging are displacement and dilution. The geometry of the process system determines which method is used. For simple systems, displacement purging is usually more effective in terms of time and cost but, for more complex systems, dilution purging is used.

**PPE**

- Safety glasses
- Safety boots
- Gloves
- Hard hats

**TRAINING**
**TOOLS/EQUIPMENT**

- Gas monitor

| # | Job Steps                     | Hazards                                  | Control Measures  |
|---|-------------------------------|--|---|
| 1 | Mobilize and rig in N2 truck  | Congestion                               | <ul style="list-style-type: none"> <li>▪ Stage truck and piping in strategic locations</li> <li>▪ Signs and caution tape to warn other crews and workers</li> <li>▪ Only those involved in work to be in area</li> <li>▪ Truck to be grounded, wheel chocks, positive air shut off</li> </ul>       |
| 2 | Pressure Test N2 Piping Lines | High pressure gas, working with Nitrogen | <ul style="list-style-type: none"> <li>▪ Never try to fix a leak while still under pressure</li> <li>▪ Ensure no leaks – check all connections</li> <li>▪ Discuss MSDS with crew</li> <li>▪ Be aware of possible N2 burns and oxygen deficiencies</li> <li>▪ All proper PPE at all times</li> </ul> |
| 3 | Purging Piping Systems        | Liquid N2                                | <ul style="list-style-type: none"> <li>▪ All required valves open – determine flow from P&amp;ID's</li> <li>▪ Wear Gloves</li> </ul>  |
| 4 | Determine N2 purge complete   | Verify purge sufficient                  | <ul style="list-style-type: none"> <li>▪ Check high point vents to prove Zero LEL's</li> </ul>  |



**SAFE JOB PROCEDURE**

**SJP-04**

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**Additional Precautions:**

**REFERENCE/REGULATIONS**

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|---------------|----|--------------|----|------------|-------|-------------|
| Developed by: | 1. | Angie Anton  | 2. | Garry Lane | Date: | Dec. 18/08  |
|               | 3. | _____        | 4. | _____      |       | _____       |
| Revised by:   | 1. | Ryan Obleman | 2. | _____      | Date: | April 18/18 |

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