







**Standard Operating Procedure**  
**Cycle Purging**

**SOP #: 6.026 Rev. 0**

**Page #: 1 of 4**

**Approval**

<i>Approving Authority</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
President	Joseph Parisi		8/6/18
Operations Manager	Steve Hansen		8/2/18
Vice President Engineering	Steve Rusconi	SR	8/1/18
Process Systems Manager	Michael Delgado		7/31/18
Quality Assurance Manager	Steve Washington		8/7/18

**Revision History**

<i>Revision #</i>	<i>Description of Change</i>	<i>Effective Date</i>	<i>DCR#</i>
0	Original Issue	08/07/18	17007



**Standard Operating Procedure**  
**Cycle Purge-Clean Gasses**

**SOP #: 6.026 Rev. 0**

**Page #: 2 of 4**

---

**1 Purpose**

- 1.1 To establish a procedure for cleaning piping/tubing systems including high purity compressed gases using the process of Cycle Purging or 'blowing down' in cycles.
- 1.2 To establish a procedure for verification of cleanliness and providing a report to document the process completion for the customer.

**2 Scope**

- 2.1 This procedure applies to high purity and/or 'clean' compressed gas or other piping installations where required to provide cycle purging with a record of cleaning process followed and verification as required.
  - 2.1.1 Typical Clean Compressed Gas systems include: Clean Dry Air (CDA); Nitrogen (N<sub>2</sub>); Process Air(PA); Oxygen (O<sub>2</sub>); Carbon Dioxide (CO<sub>2</sub>)

**3 Responsibilities**

- 3.1 The Quality Control Manager (QCM) is responsible to provide access to this SOP for Project Managers, Forepersons and purge team members involved with clean gas installation projects.
- 3.2 The Project Manager (PM) is responsible for the following:
  - 3.2.1 Coordinate with Owner, General Contractor, other trades, etc. while planning this process.
  - 3.2.2 Provide support and monitor work areas for compliance with this SOP and ensure all records are retained for the Turnover Package.
- 3.3 The Field Foreperson (FM) is responsible for the following:
  - 3.3.1 Notification of Owner, General Contractor, other trades and Therma crews as required of the schedule and hazards involved.
  - 3.3.2 Provide direction and manage purge teams and records.
- 3.4 Purge Crew is responsible to follow all jobsite protocols and safety requirements while performing purging operations. Use proper PPE for the expected hazards; follow this SOP.



**Standard Operating Procedure**  
**Cycle Purge-Clean Gasses**

**SOP #: 6.026 Rev. 0**

**Page #: 3 of 4**

---

4 Procedures

- 4.1 Purging Foreperson to notify GC and other trades **directly prior** to performing the purging operations.

4.1.1.1 Schedule to perform cycle purging operations, hazards involved for personnel in the affected area. Safety and PPE requirements and recommendations for personnel in the affected area.

4.1.1.2 Notification shall be oral or written and with proper advanced notice as required per project specifications.

- 4.2 Foreperson shall complete instruction portion of the SOP Form FN 6.026.1 Cycle Purge Log and provide with system drawings to the Purge Team to record the work as it is performed.

4.2.1 Job #, Job Name, Purge Log # and Purging Date.

4.2.2 System, Drawing #, Purge Medium, Medium Source & Type

4.2.3 Room #, Line #, Valves #'s, drawings attached?

4.2.4 Clean wiper test required? Highlighted drawings required?

4.2.5 System Pressure Tested and Owner/GC notified?

4.2.6 Foreperson shall review this procedure and report form with the purging crew prior to start of purging process. Foreperson shall ensure purge crew are working in compliance with this SOP.

4.2.7 Foreperson shall review all completed reports and sign and date to indicate acceptance, then forward to PM or QCM for TOP.

- 4.3 Purge Crew shall follow this procedure, project specifications and customer requirements to perform the work:

4.3.1 Follow all jobsite/shop protocols and safety requirements while performing purging operations. Use proper PPE for the expected hazards.

4.3.2 Verify that the purging pressure source of either gas bottles or compressors is operational.

4.3.3 Verify that regulators, filters, driers are installed and operational.





## Standard Operating Procedure

SOP #: 6.026 Rev. 0

### Cycle Purge-Clean Gasses

Page #: 4 of 4

---

- 4.3.4 Starting with the Point of Use (POU) valve that is closest to the source, record the purge data on the SOP Form FN 6.026.1 Cycle Purge Log begin cycle purge process.
- 4.3.5 Verify valve ID Tag matches the system drawings.
- 4.3.6 Open the valve fully open for minimum of five seconds (5 s).
- 4.3.7 Close the valve to allow system pressure to return to normal.
- 4.3.8 The same valve shall then be opened a second time for minimum of five seconds (5 s).
- 4.3.9 Close the valve to allow system pressure to return to normal.
- 4.3.10 The same valve shall then be opened a third time for minimum of five seconds (5 s).
- 4.3.11 Clean Wiper Test Note: If system is purged with Nitrogen, air, etc., keep purging until there are no visible particles appearing on white clean wiper at the POU outlet as required per project specifications.
- 4.3.12 Complete the Cycle Purge Log form records and highlight the attached drawing as required as each portion of the work is performed.
- 4.3.13 Record/notify of any non-conformance and transfer the Cycle Purge Logs by handing directly to the foreman upon completion of the process or end of workday.

## 5 Review and Approval

- 5.1 The Foreperson shall then review the form with focus on completeness and accuracy.
- 5.2 Foreperson shall indicate they accept the form with their initial and date or return the form to the purging crew for correction.
- 5.3 Foreperson shall transmit the forms for turnover to the customer.