

# P-03

---

## MAINTENANCE MECHANIC TRAINING

### SKILL CHECK GUIDE

**Duty P: Steam Systems**

**P-03: Perform Startup and Shutdown Procedures**

Issued 01/01/99

## Rationale

This Skill Development Guide provides the knowledge a Learner needs to perform startup and shutdown procedures. The Learner must be able to perform the startup and shutdown procedures.

## Skill Check Set-Up

Provide the Learner with the opportunity to shutdown the heating steam after the cold season or startup the heating steam before the cold season, if possible. Ask the Learner to walk through the process discussing the procedure, components, and required pressures.

Provide the tools, materials, and resources needed to demonstrate the task.

## What The Learner Will Need

This section contains the safety information, tools, and resources you will need before performing startup or shutdown procedures.



- Follow all Caterpillar facility safety standards when performing this task.
- Shutting down steam requires lock and tag.
- Lift/man trucks (JLG) may be required to reach various steam components.
- Exercise extreme caution, steam temperatures can reach 406°F at 250 psi, starting up the steam pressure too fast can result in death.



- basic Maintenance Mechanic hand tools
- pipe wrenches
- packing glands 8" to 10" valves



- print, if available (plant pneumatic/steam layout)



## Skill Check

Given an operating or a shut down steam system, perform startup/shutdown procedures.

Needs  
Mastered Practice

### Safe Work Practices

- |       |       |  |
|-------|-------|--|
| _____ | _____ | 1. Follow all Caterpillar facility safety standards when performing this task.   |
| _____ | _____ | 2. Shutting down steam requires lock and tag.  |
| _____ | _____ | 3. Lift/man trucks (JLG) may be required to reach various steam components.  |
| _____ | _____ | 4. Exercise extreme caution, steam temperatures can reach 406°F at 250 psi, starting up the steam pressure too fast can result in death. |

### Task Standards

- |       |       |   |
|-------|-------|---|
| _____ | _____ | 1. Steam system must be shut down so that no pressure is built up on the controller valves when performing the shutdown procedures.             |
| _____ | _____ | 2. Steam system must be built up so that the incoming pressure gage reads approximately 250 psi when performing startup procedures.             |
| _____ | _____ | 3. Steam system must be built up so that the first controller pressure gage reads approximately 100 psi when performing startup procedures.     |
| _____ | _____ | 4. The steam system must be built up so that the second controller pressure gage reads approximately 50 psi when performing startup procedures. |



## Evaluator's Sign-Off

The Learner has demonstrated safe work practices and competent performance of the task.

Evaluator:

Date:

Learner:

Clock No:

