# STANDARD OPERATING PROCEDURES

**Standard Operating Procedures** are required by OSHA's Process Safety Management and EPA's Risk Management Plan programs. We partner with operators to write compliant SOPs: iWorkWise provides technical writing expertise and operators provide facility know-how. We can also update SOPs when equipment or systems are changed.

## Do your procedures address the following?

- Initial startup
- Normal operations
- Temporary operations
- Emergency shutdown and operations
- Normal shutdown
- Startup following a normal or emergency shutdown or a major change
- Consequences of deviations and steps required to correct/avoid deviations
- Maintenance procedures

#### **Parameters**

Personnel required	1-2
Necessary tools	Appropriately sized wrenches, anti-seize compound, pipe dope, sulfur sticks or soapy water, portable
	ammonia detector. Do not use crescent wrench or channel locks on valves.
Personnel hazards	Ammonia liquid/vapor exposure from a leaking three-way valve, residual ammonia between three-way
	valve and SRV, high pressure causing SRV release when working at valve, pulling wrong valve could
	result in death or serious injury
Plant hazard	Significant ammonia release to atmosphere possible
Minimum PPE required	Goggle and butyl rubber gloves. Have full face respirator with ammonia cartridges readily available.
	Use the portable ammonia detector to monitor ammonia levels

### **Procedures**

#### **Dual Safety Relief Valves Assemblies**

- 1. Consult the manufacturer's cut sheet to determine how the three-way valve operates. For example, when the three-way valve stem is in the middle, both relief valves are open partially. For valves made by some manufacturers when the stem is in, the right valve is closed. When the stem is out, the left valve is closed. Valves from other manufacturers may work the opposite.
- 2. Make sure you have all parts, materials and the time necessary to complete the job without leaving the system open for any longer than absolutely necessary to make the change.
- 3. Disconnect both unions on the discharge piping from the SRVs.

SOPs include procedures, health and safety information, required PPE, and deviations/consequences/corrective actions.

Are your SOPs complete for all equipment in your refrigeration systems?



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