



# Instrument and Service Air System

Chapter 13.0



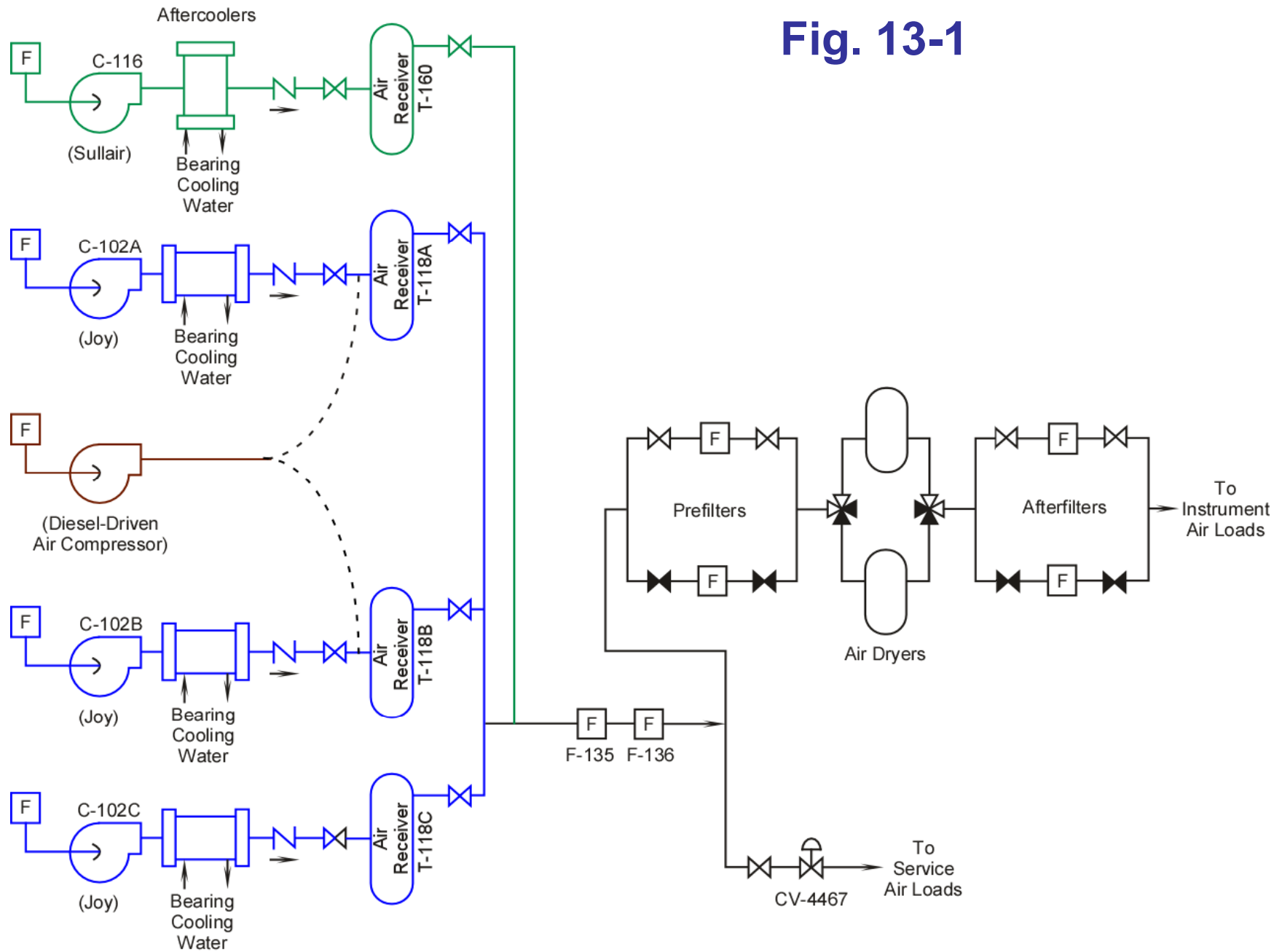
# Objectives

- 1. Explain the purpose of the instrument and service air system.**
- 2. Describe the normal operation of the instrument and service air system.**
- 3. Describe the plant response to, and how certain pneumatic components remain operable following, a loss of instrument air.**
- 4. Describe the consequences of a loss of offsite power on the instrument and service air system.**

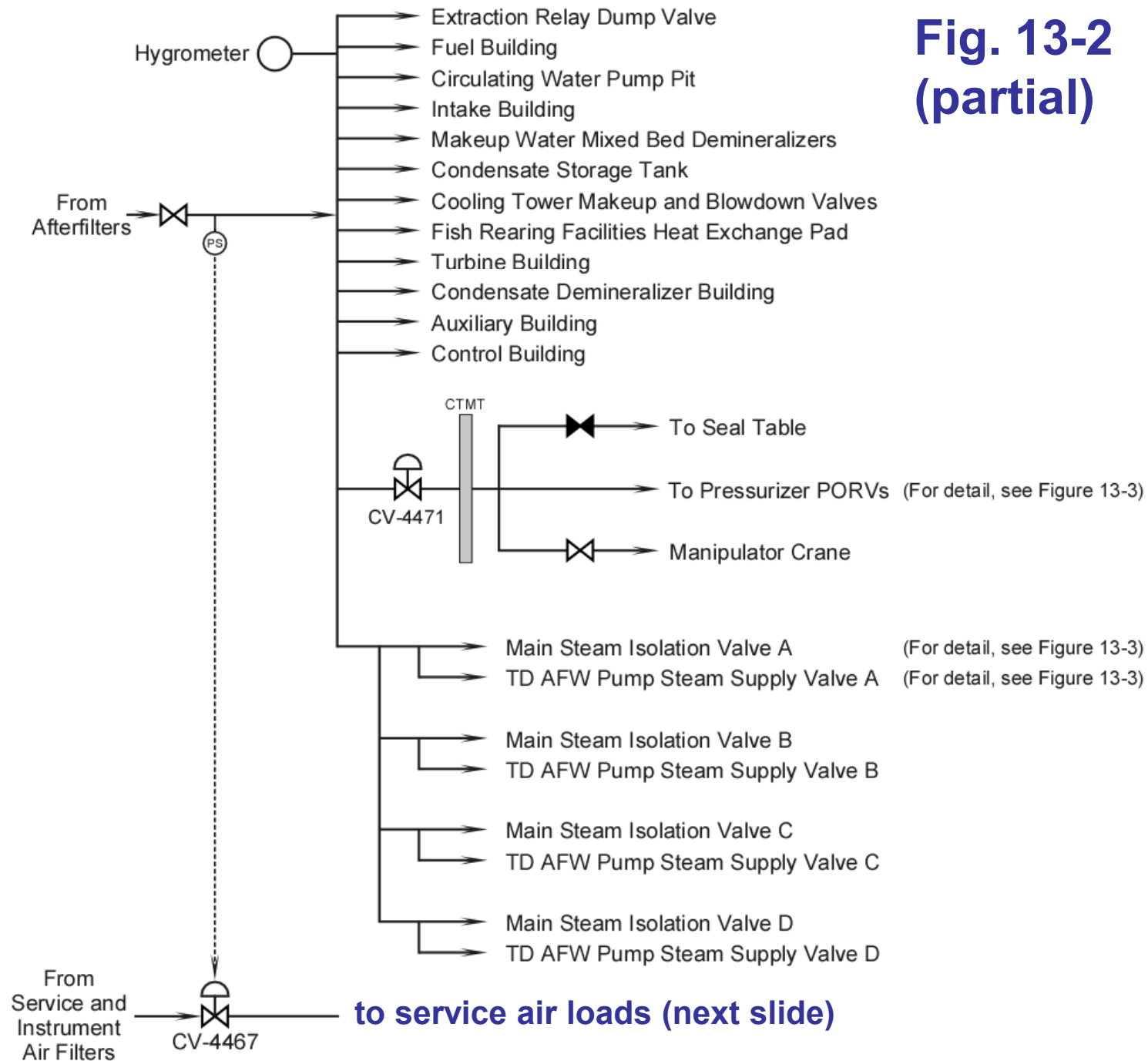
# Obj. 1: Explain the purpose of the instrument and service air system.

- The instrument and service air system supplies compressed air for pneumatic instruments, valves, and service air outlets throughout the plant.
- Pneumatically operated components should assume fail-safe positions which ensure the safe shutdown of the plant.

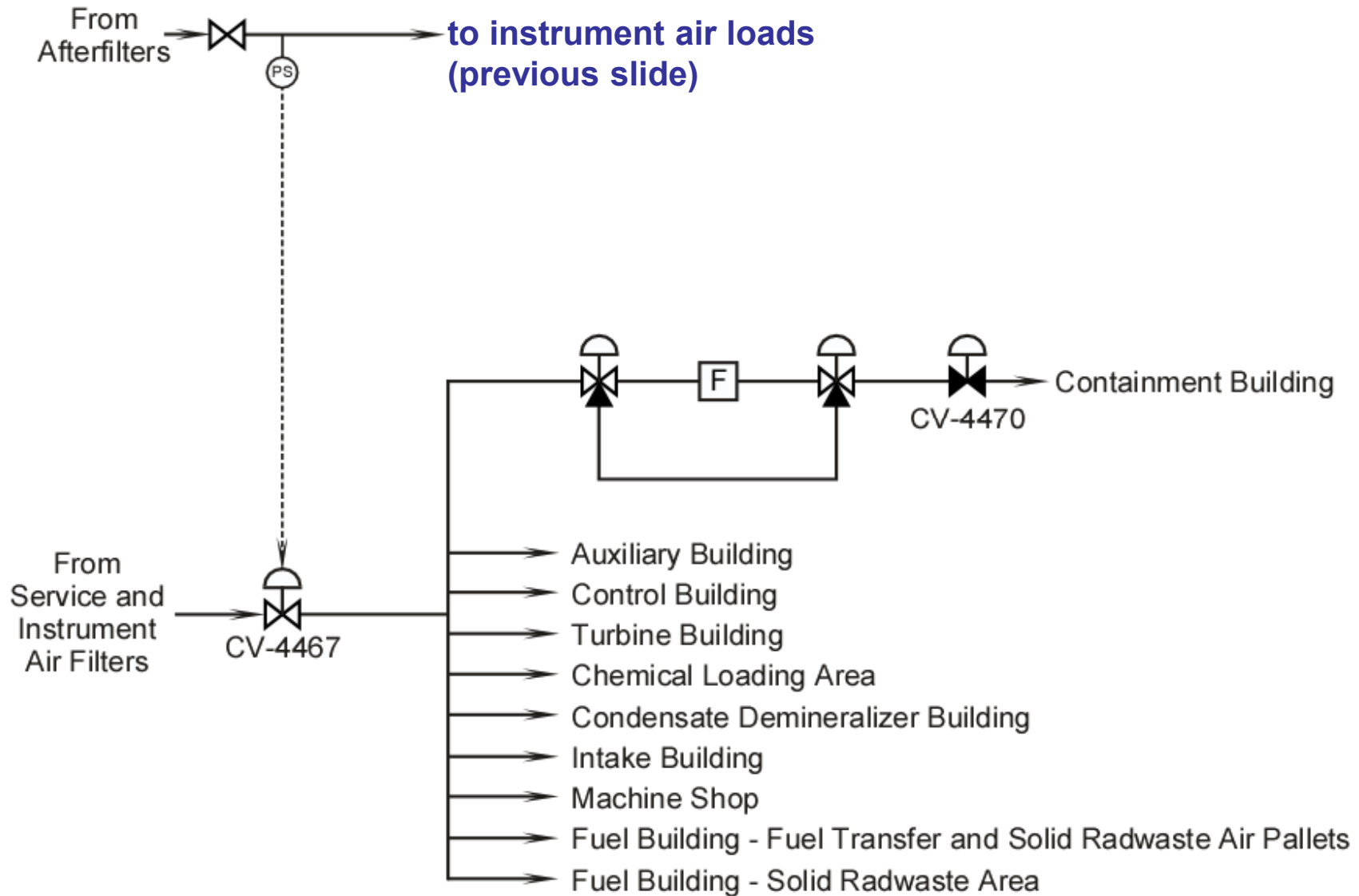
**Fig. 13-1**



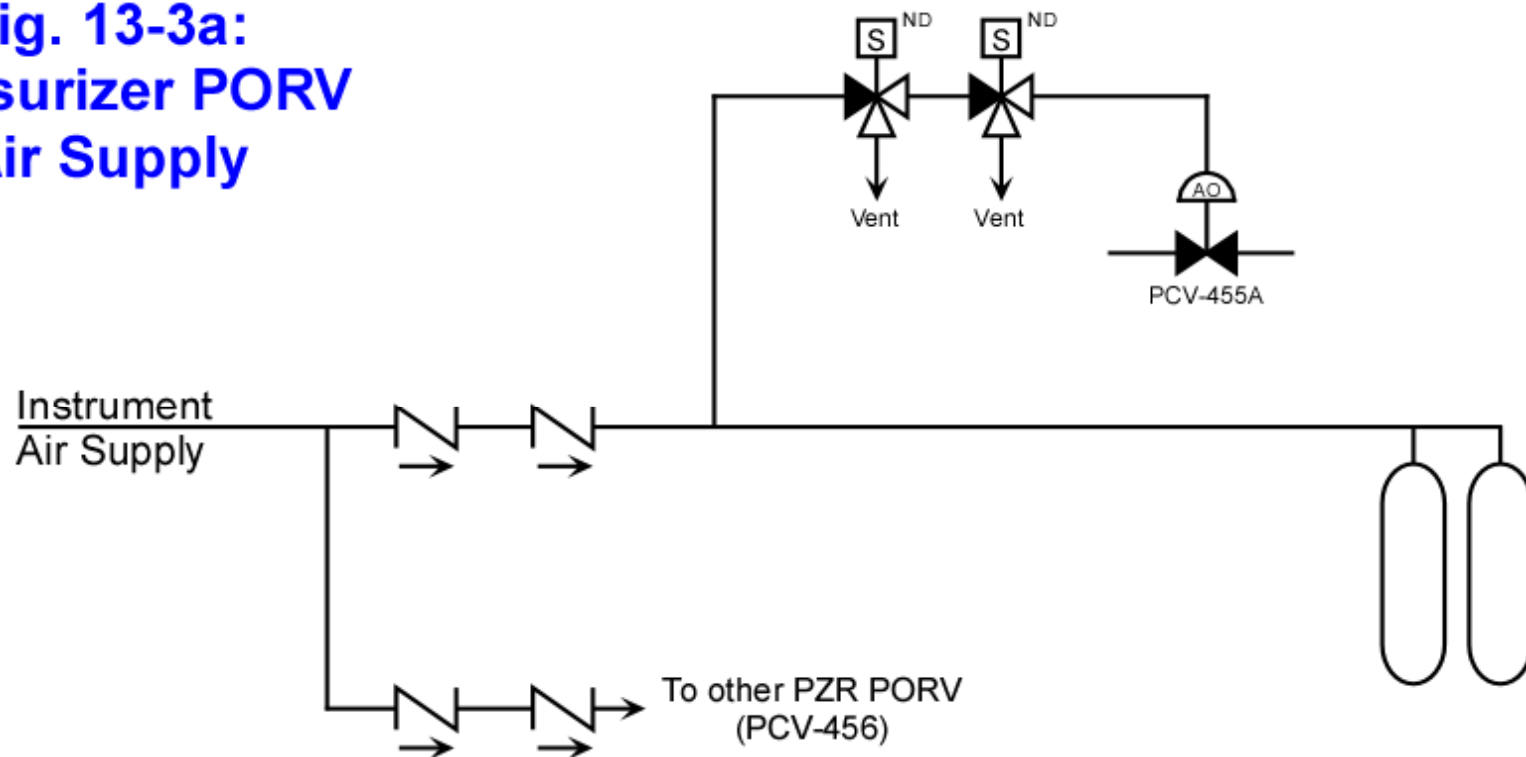
**Fig. 13-2  
(partial)**



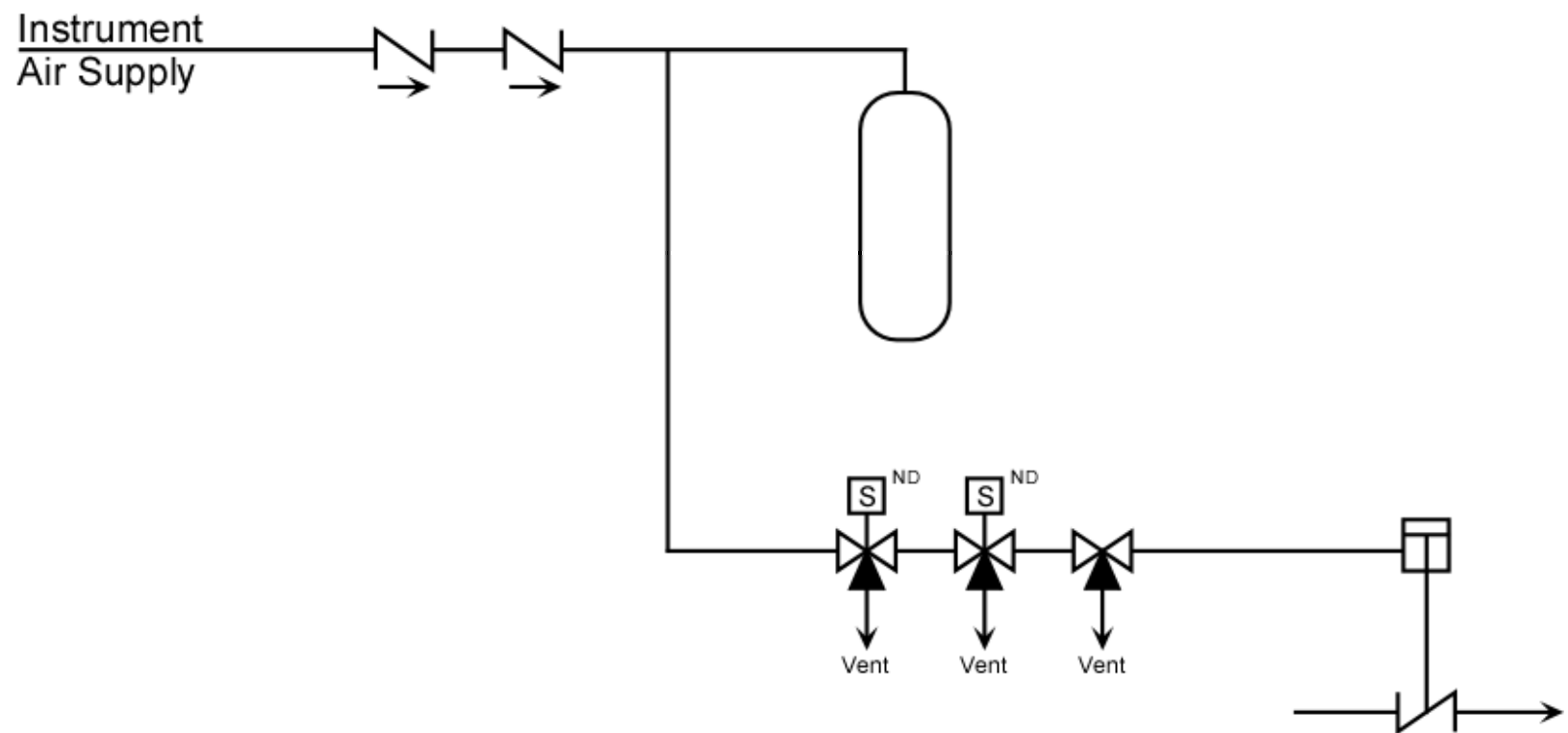
**Fig. 13-2  
(partial)**



**Fig. 13-3a:  
Pressurizer PORV  
Air Supply**

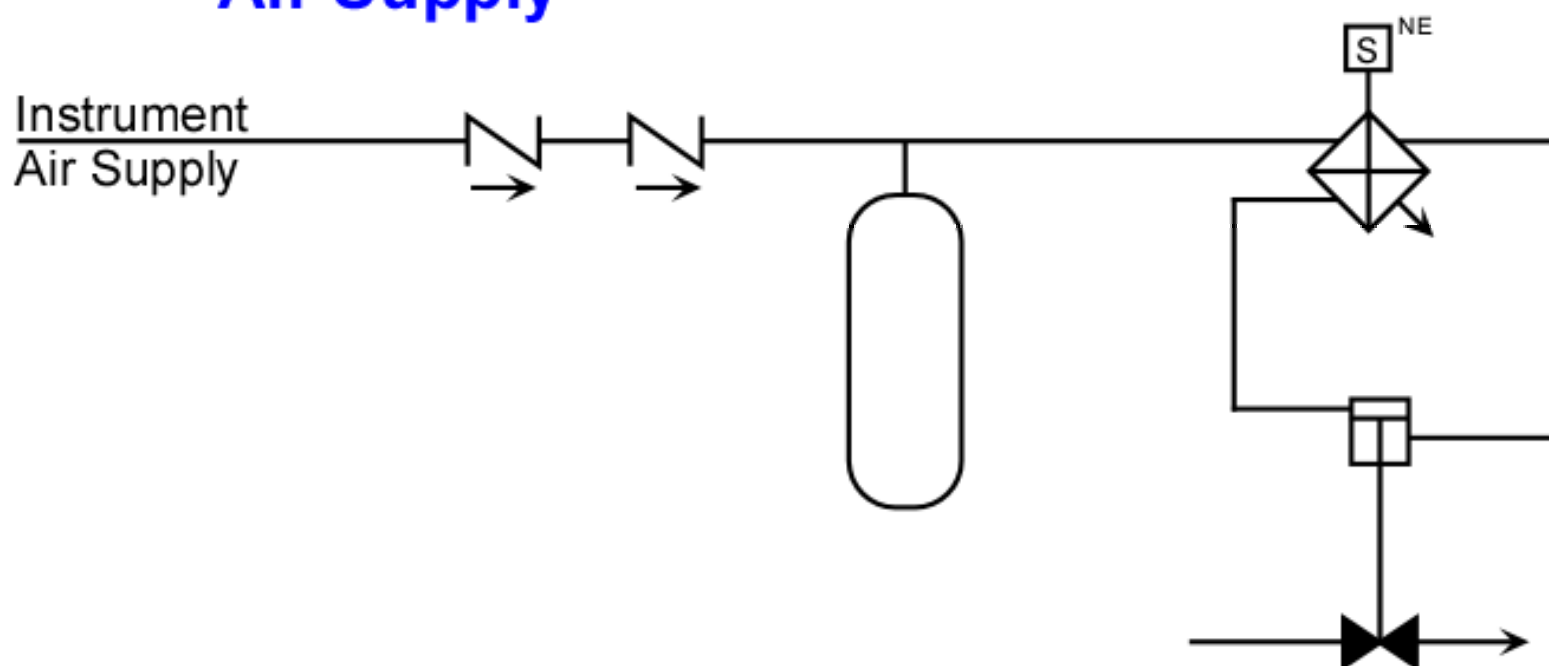


**Fig. 13-3b:**  
**Main Steam Isolation Valve**  
**Air Supply**





**Fig. 13-3c:**  
**TD AFW Pump Steam Supply Valve**  
**Air Supply**



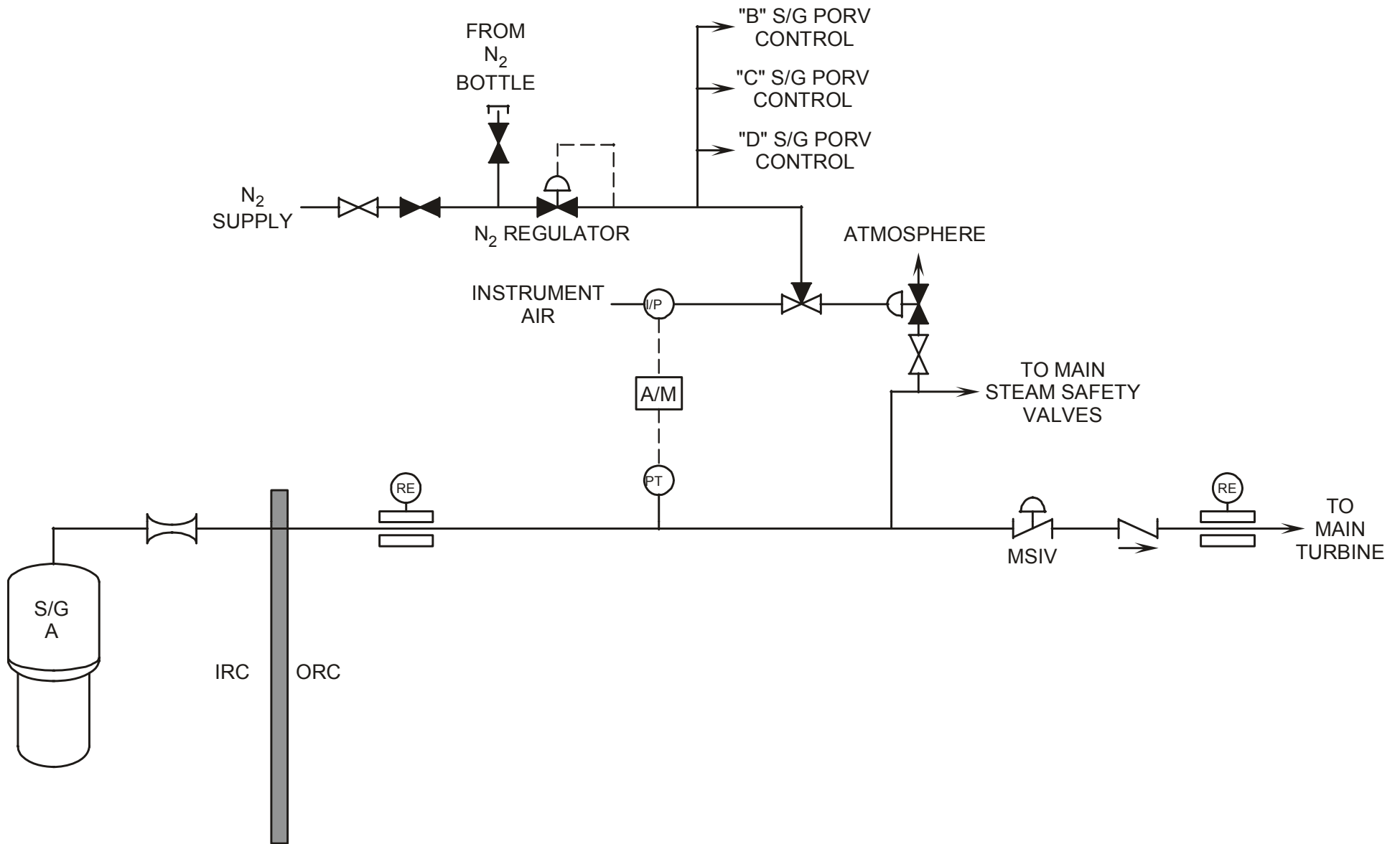


Figure 7.1-4 Steam Generator PORV Control