



## Equipment IV

# Steam & Condensate Systems



### Course Objectives

1. Describe the purpose of a steam and condensate system.
2. Identify the major equipment components and their function in a steam and condensate system.
3. Describe the energy flow path in a steam cycle system.
4. Describe the relationship of volume, temperature and pressure.
5. Describe how steam is generated and distributed throughout a chemical facility.
6. Describe the common safety hazards related to a steam and condensate system.
7. Describe the safety compliance for an operator and governmental regulation requirements that must be followed when working around steam and condensate systems.
8. Recognize the importance of lockout/tagout of steam and condensate systems.



### Key Terms (Define the following)

steam cycle - \_\_\_\_\_  
\_\_\_\_\_

boiler - \_\_\_\_\_  
\_\_\_\_\_

turbine - \_\_\_\_\_  
\_\_\_\_\_

generator - \_\_\_\_\_  
\_\_\_\_\_

condenser- \_\_\_\_\_  
\_\_\_\_\_

downcomers - \_\_\_\_\_  
\_\_\_\_\_

riser tubes - \_\_\_\_\_  
\_\_\_\_\_

saturated water - \_\_\_\_\_  
\_\_\_\_\_

saturated steam - \_\_\_\_\_  
\_\_\_\_\_

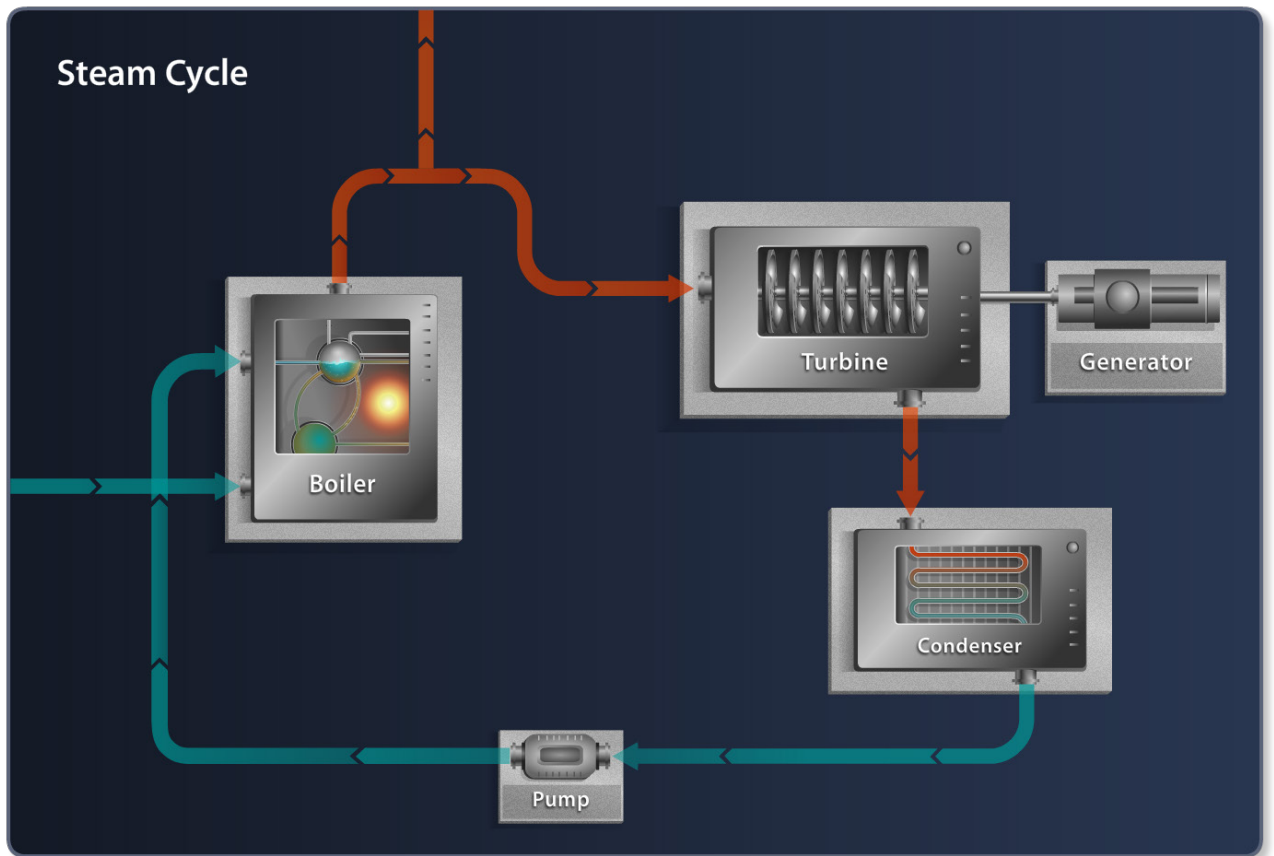
economizer - \_\_\_\_\_  
\_\_\_\_\_

flash tank - \_\_\_\_\_  
\_\_\_\_\_

steam trap - \_\_\_\_\_  
\_\_\_\_\_

water tubes - \_\_\_\_\_  
\_\_\_\_\_

# Principles





## Questions

1. List the uses of steam in a chemical industry.

---

---

---

---

2. List the reasons why recapturing condensate is critical for a company.

---

---

---

---