



U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

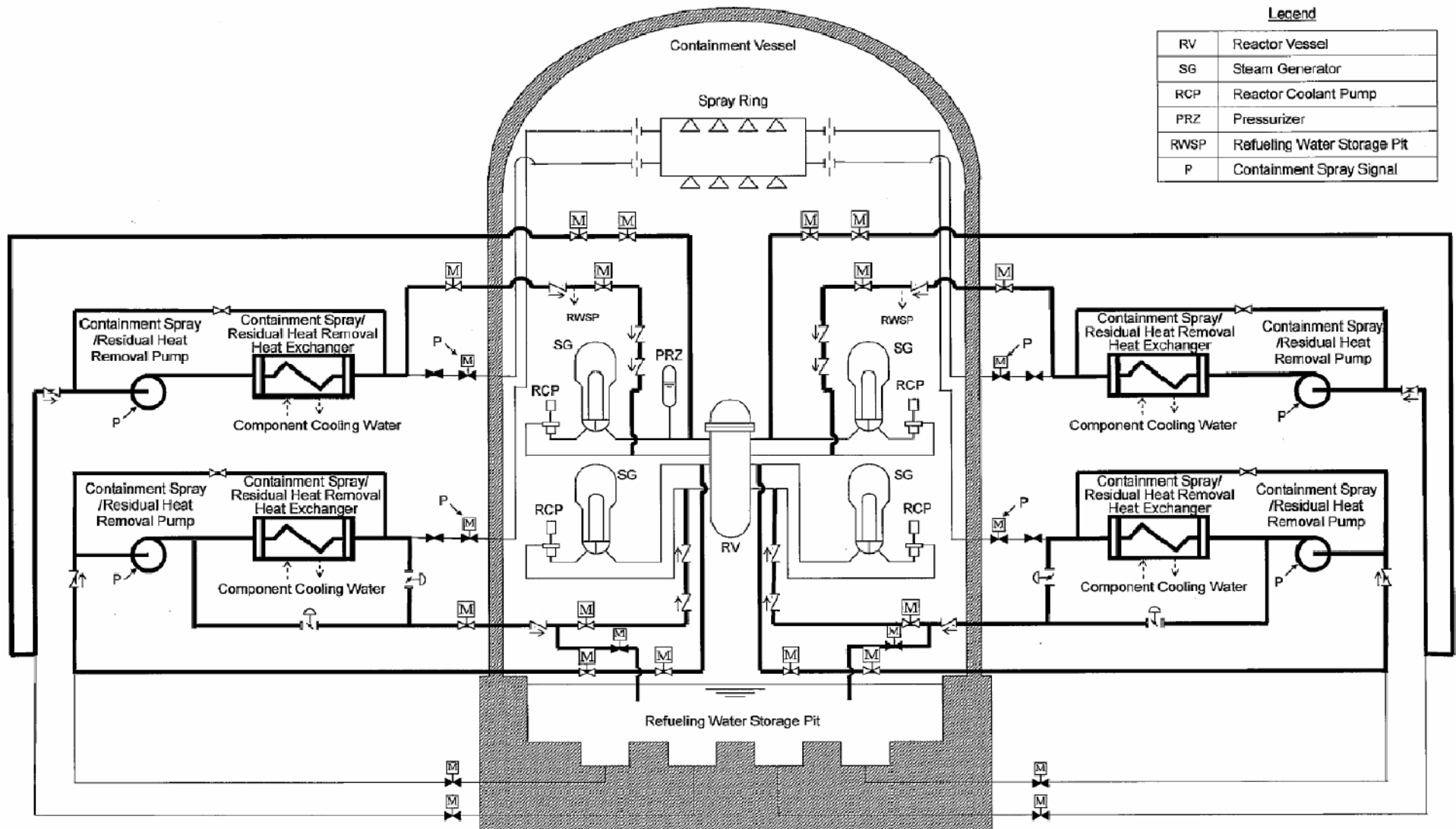
Major Auxiliary Systems

US-APWR Technology Chapter 6.0

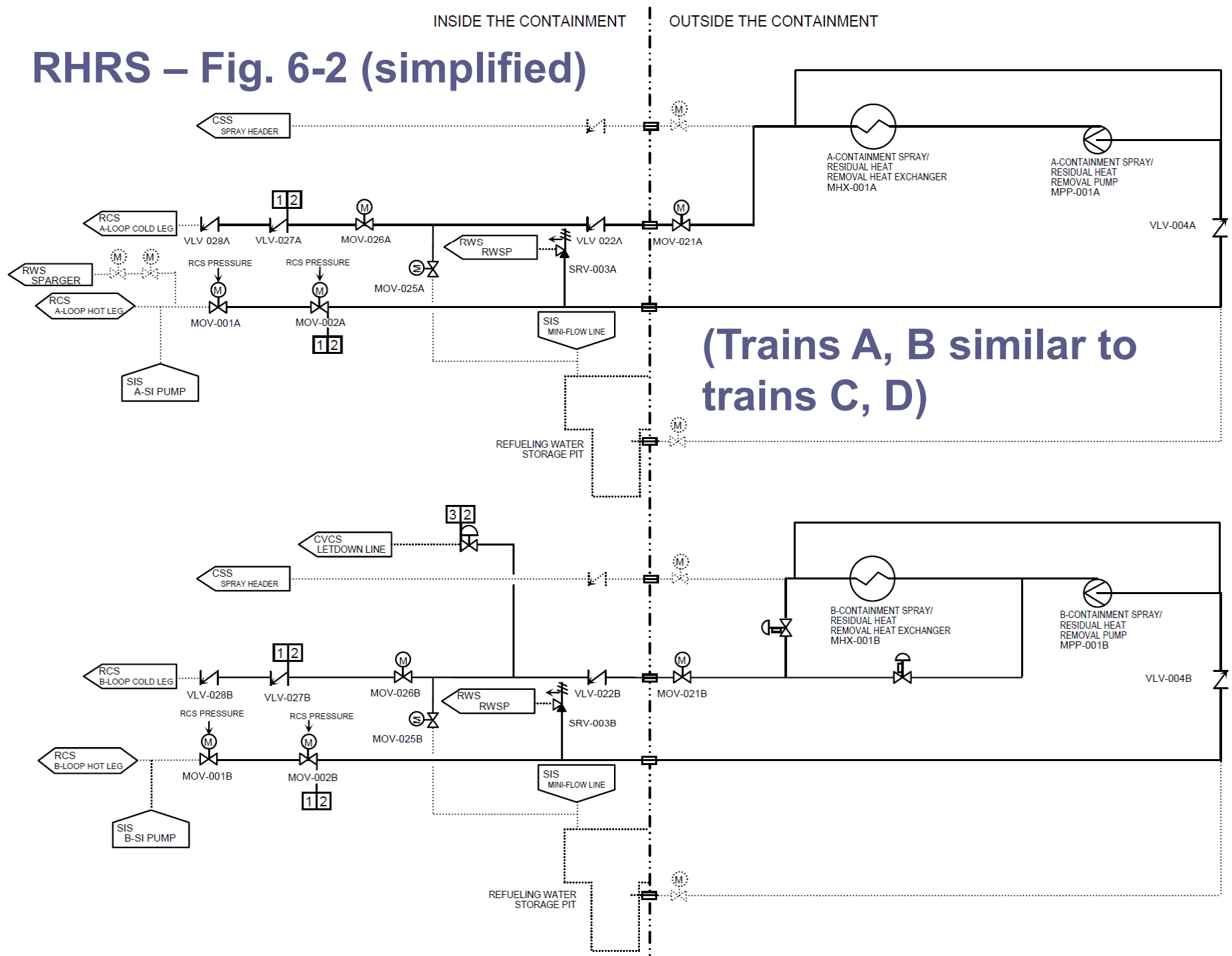
Learning Objectives

1. State the purposes, and describe the operation, of each major auxiliary system:
 - a. Residual heat removal system (RHRS)
 - b. Chemical & volume control system (CVCS)
 - c. Component cooling water system (CCWS)
 - d. Essential service water system (ESWS)
 - e. Spent fuel pit cooling & purification system (SFPCS)
2. Describe the major differences between the US-APWR auxiliary systems and those of currently operating PWRs.

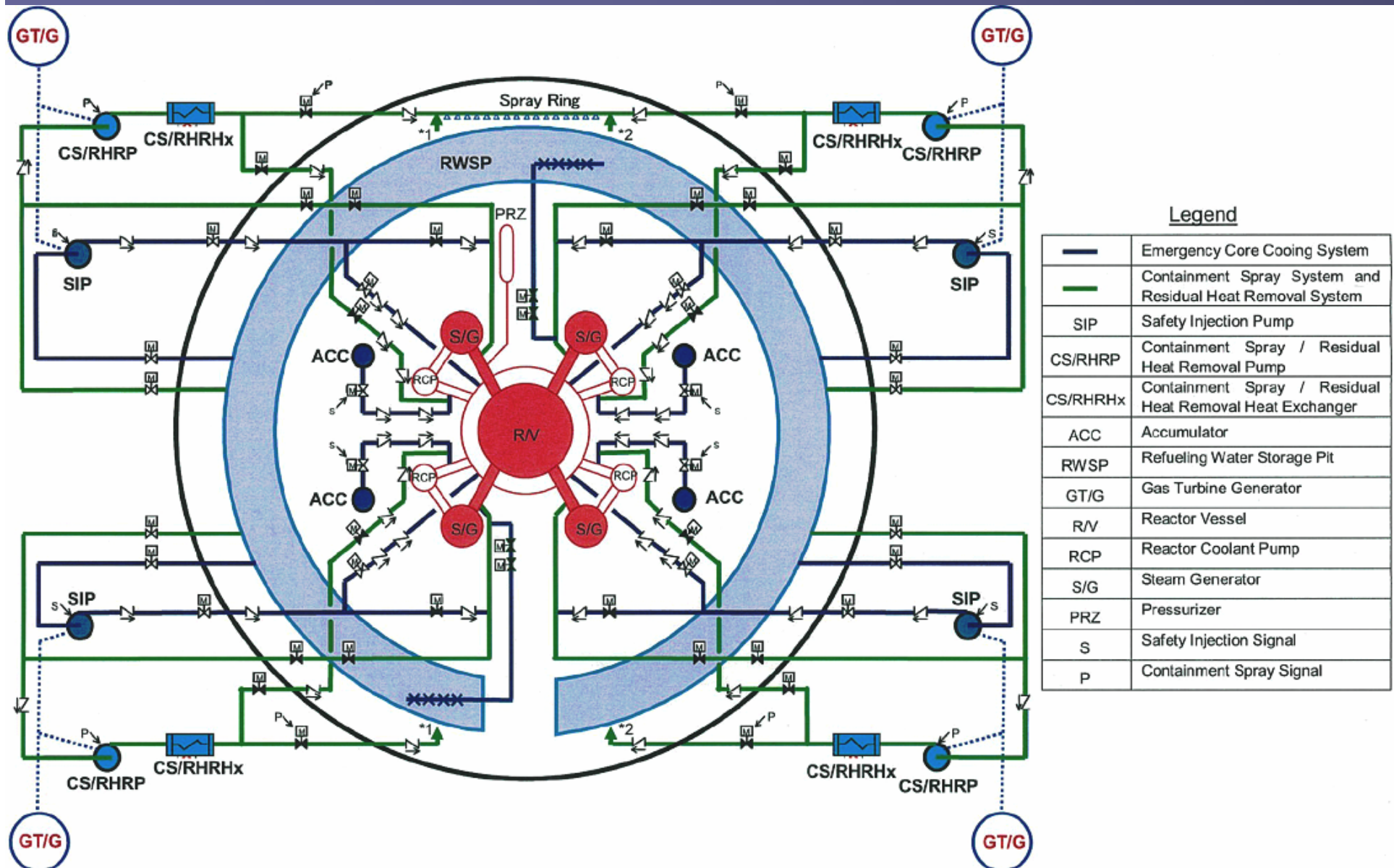
RHRS – Fig. 6-1



RHRS – Fig. 6-2 (simplified)



Safety Systems Composite



CVCS – Fig. 6-3

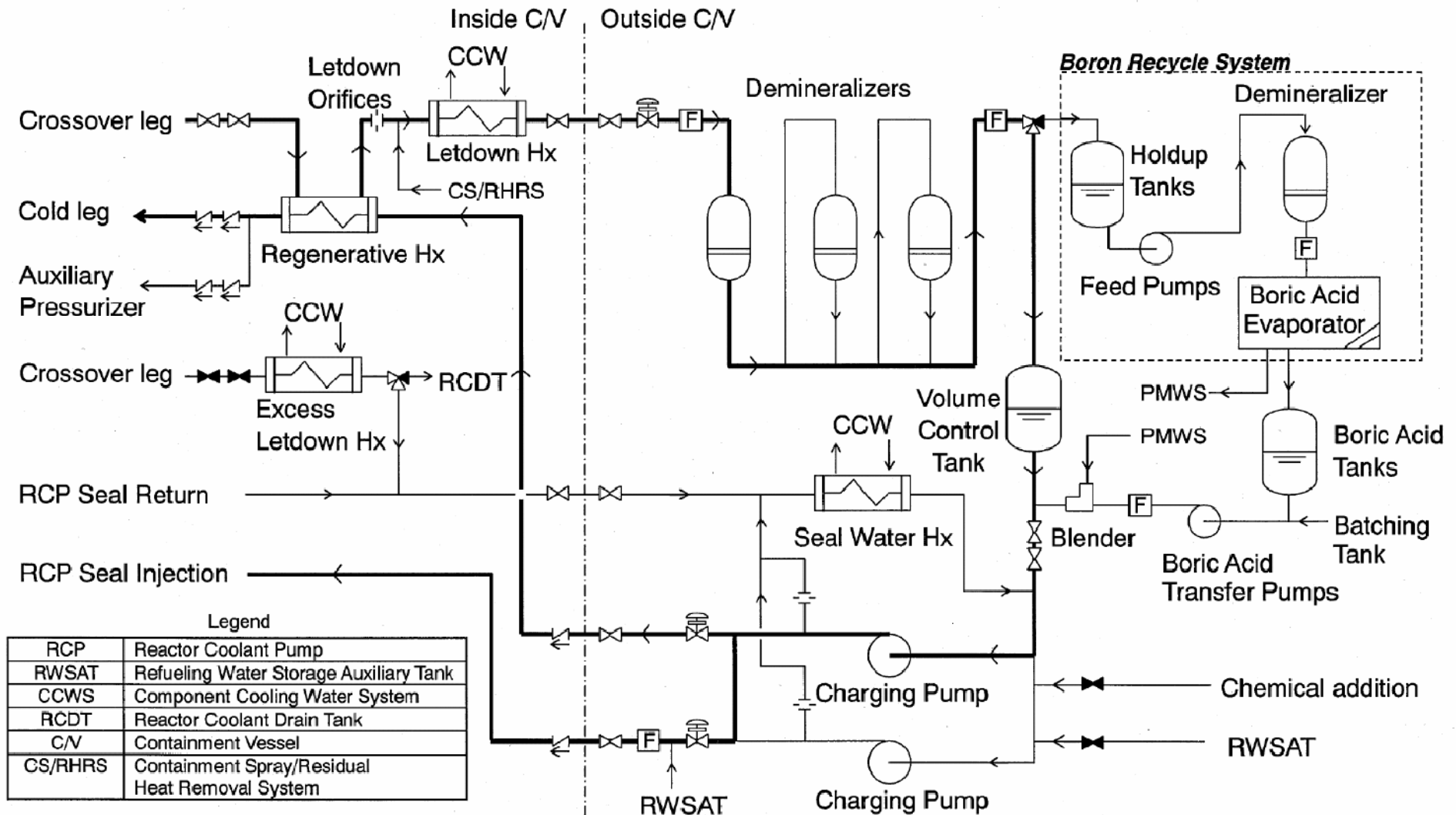
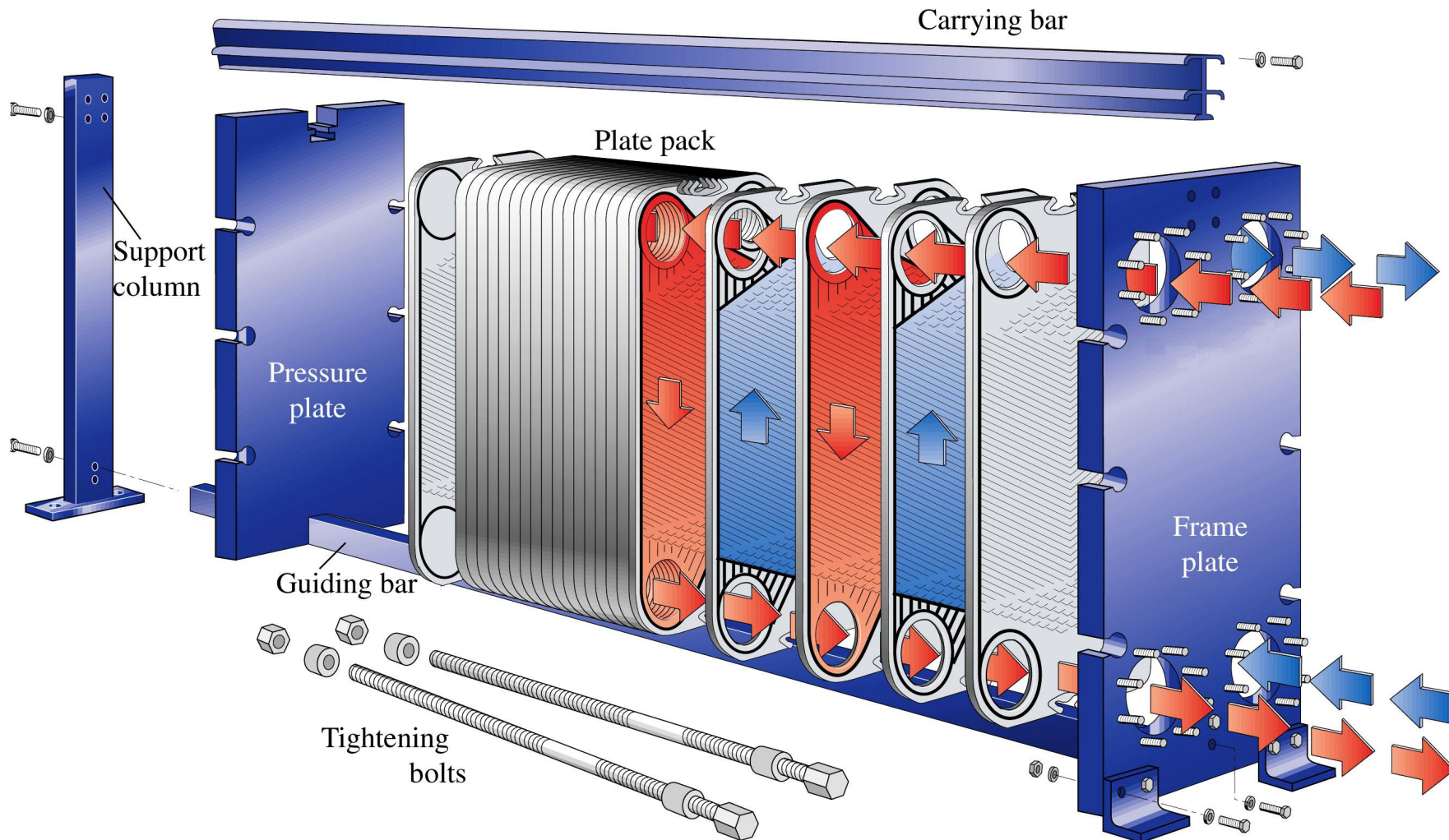
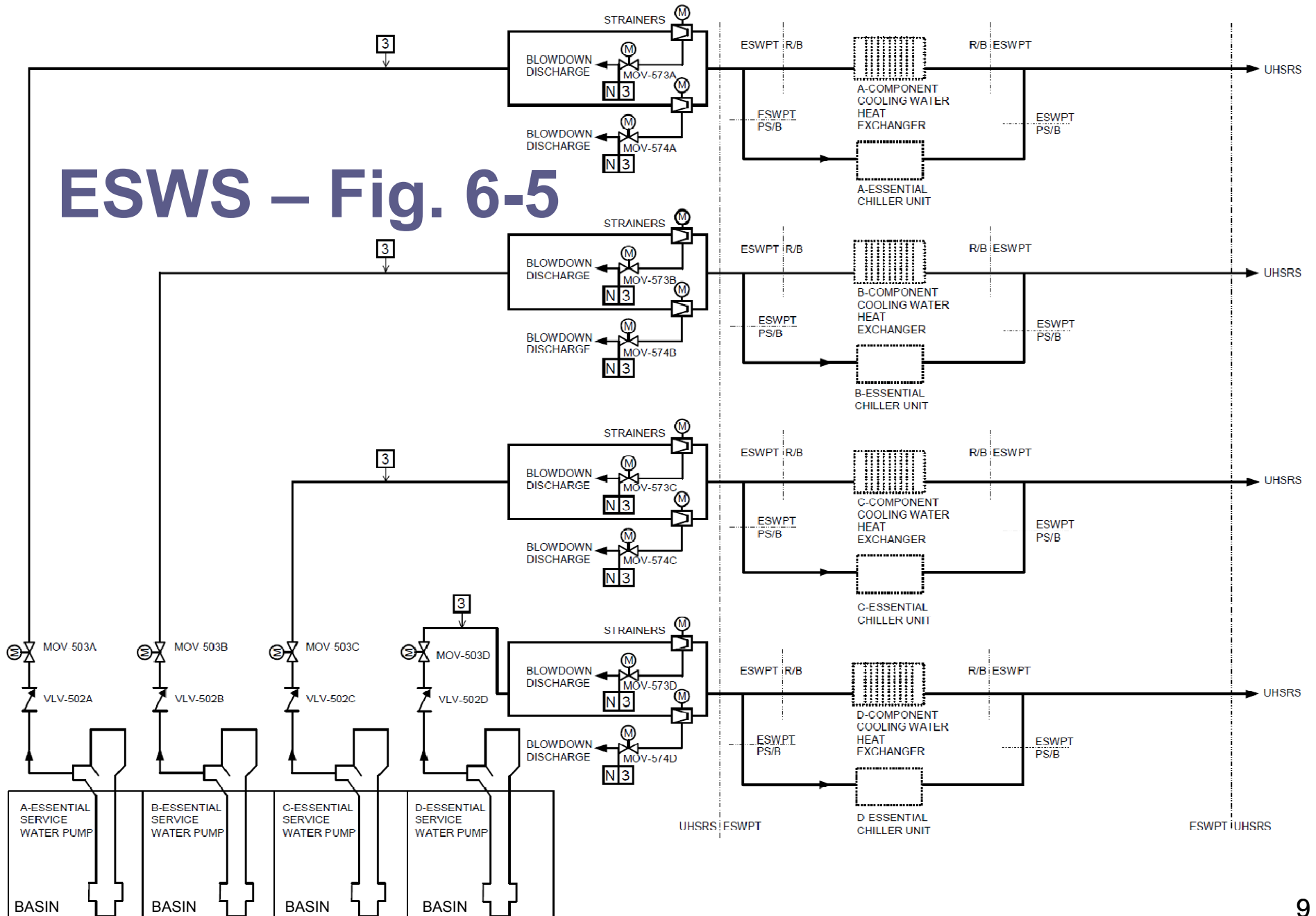


Plate-Type Heat Exchanger



ESWS – Fig. 6-5



SFPCS – Fig. 6-6 (simplified)

