

Center for Curriculum and Transfer Articulation



Power Plant Systems II

Course: PPT203	Lecture 3.0 Credit(s) 3.0 Period(s) 3.0 Load
First Term: 2013 Summer I	Course Type: Occupational
Final Term: Current	Load Formula: S

Description: Advanced plant systems. Water, electrical and cooling systems. Safe shutdown cooling water system. Waste drain system. Fuel handling and storage systems. Fuel pool cooling and cleanup. Purpose and operation of radioactive waste management. Service air and gas systems. Ventilation and fire protection systems. Containment, Containment Spray, Emergency Core Cooling, Emergency Power, Environmental Monitoring, Off-gas, Post-accident, Radiation Monitoring, Residual Heat Removal, and Suppression Pool systems.

Requisites: Prerequisites: Prerequisites PPT120. Prerequisites or Corequisite: PPT121.

MCCCD Official Course Competencies

1. Explain the function and operation of the Circulating Water system. (I)
2. Explain the purpose and operation of the Non-safety Related Cooling Water system. (II)
3. Explain the purpose and operation of the Safe Shutdown Cooling Water system. (III)
4. Explain the purpose and operation of the Oily and Chemical Waste Drain system. (IV)
5. Explain the purpose and operation of the Fuel Handling and Storage system. (V)
6. Explain the purpose and operation of the Fuel Pool Cooling and Cleanup system. (VI)
7. Explain the purpose and operation of the Radioactive Waste Management system. (VII)
8. Explain the purpose and operation of the Service Air and Gas system. (VIII)
9. Explain the purpose and operation of the Essential Ventilation system. (IX)
10. Explain the purpose and operation of the Fire Protection system. (X)
11. Explain the purpose and operation of the Containment system. (XI)
12. Explain the purpose and operation of the Containment Spray system. (XII)
13. Explain the purpose and operation of the Emergency Core Cooling system. (XIII)
14. Explain the purpose and operation of the Emergency Power system. (XIV)
15. Explain the purpose and operation of the Environmental Monitoring system. (XV)
16. Explain the purpose and operation of the Off-gas system. (XVI)
17. Explain the purpose and operation of the Post-accident system. (XVII)
18. Explain the purpose and operation of the Radiation Monitoring system. (XVIII)
19. Explain the purpose and operation of the Residual Heat Removal system. (XIX)
20. Explain the purpose and operation of the Suppression Pool system. (XX)
21. Explain the importance of various systems to plant safety and radioactivity containment (XXI)
22. Identify radiological hazards and precautions associated with maintenance tasks for various systems. (XXII)

MCCCD Official Course Outline

- I. Circulating Water System
 - A. Purpose
 - B. Components
 - C. Operation
- II. Non-safety Related Cooling Water System
 - A. Purpose
 - B. Components
 - C. Operation
- III. Safe Shutdown Cooling Water System
 - A. Purpose
 - B. Components
 - C. Operation
- IV. Oily and Chemical Waste Drain System
 - A. Purpose
 - B. Components
 - C. Operation
- V. Fuel Handling and Storage System
 - A. Purpose
 - B. Components
 - C. Operation
- VI. Fuel Pool Cooling and Cleanup System
 - A. Purpose
 - B. Components
 - C. Operation
- VII. Radioactive Waste Management System
 - A. Purpose
 - B. Components
 - C. Operation
- VIII. Service Air and Gas System
 - A. Purpose
 - B. Components
 - C. Operation
 - D. Sub-systems
- IX. Essential Ventilation System
 - A. Purpose
 - B. Components
 - C. Operation
 - D. Sub-systems
- X. Fire Protection System
 - A. Purpose
 - B. Components
 - C. Operation
 - D. Sub-systems
- XI. Containment System
 - A. Purpose
 - B. Components

- C. Operation
- XII. Containment Spray System
 - A. Purpose
 - B. Components
 - C. Operation
- XIII. Emergency Core Cooling System
 - A. Purpose
 - B. Components
 - C. Operation
- XIV. Emergency Power System
 - A. Purpose
 - B. Components
 - C. Operation
- XV. Environmental Monitoring System
 - A. Purpose
 - B. Components
 - C. Operation
- XVI. Off-gas System
 - A. Purpose
 - B. Components
 - C. Operation
- XVII. Post-accident System
 - A. Purpose
 - B. Components
 - C. Operation
- XVIII. Radiation Monitoring System
 - A. Purpose
 - B. Components
 - C. Operation
- XIX. Residual Heat Removal System
 - A. Purpose
 - B. Components
 - C. Operation
- XX. Suppression Pool System
 - A. Purpose
 - B. Components
 - C. Operation
- XXI. Importance to Plant Safety and Radioactivity Containment
 - A. Circulating Water
 - B. Containment
 - C. Containment Spray
 - D. Emergency Core Cooling
 - E. Environmental Monitoring
 - F. Off-gas
 - G. Post-accident
 - H. Radiation Monitoring
 - I. Residual Heat Removal
 - J. Suppression Pool

J. Suppression Pool

XXII. Radiological Hazards and Precautions

- A. Circulating Water
 - B. Containment
 - C. Containment Spray
 - D. Emergency Core Cooling
 - E. Environmental Monitoring
 - F. Off-gas
 - G. Post-accident
 - H. Radiation Monitoring
 - I. Residual Heat Removal
 - J. Suppression Pool
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Last MCCCD Governing Board Approval Date: **March 26, 2013**

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