Monitoring and Diagnostic in the New Plants

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Monitoring and Diagnostic

► Monitoring
  ◆ Main task of the I&C
    • Monitors and controls the processes in the nuclear and conventional part of the plant
    • Integrates several protection systems and
    • Large scale data acquisition and archive system

► Diagnostic
  ◆ Add on Systems
    • Support the operator during normal plant operation
    • Servess with additional information about the conditions of operational important components
      - Valves and actuators
      - Pumps and other rotating machines
      - Mechanical condition of the NSSS (primary and secondary side)
      - Loose or loosened parts in the primary loops.
Monitoring and Diagnostic

- System considerations
  - Diagnostic systems
    - Should operate in parallel to I&C
      - Reduce the I&C computer load
      - Increase redundancy and stability
      - Realize diversity Monitoring and Diagnostic
    - Use commercial available hardware (as far as possible and reasonable)
    - M&D software integrates technical know how of the supplier company
    - Should provide information to the plants management system
      - Outage planning
      - Condition based maintenance
      - Spare parts and other resources planning