PT2.3: Prepare and Shut Down Process Systems

This unit is about preparing for and carrying out the shutdown of process systems.

PT2.3.1 Prepare for Process System Shutdown

PT2.3.2 Shut Down the Process System

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

Unit Scope

Candidates must prove competence across the following items (or ‘systems’) as appropriate to the workplace and Evidence Specification:

- Wells
- Oil Storage/Discharge Process
- Gas Process
- Oil/Gas Process and Export
- Water Injection
- Metering
- Utilities

In addition, the following terms in bold relate directly to those shown in bold in the Performance Statements.

- **Safe Systems of Work** must include processes or systems that incorporate Hazard Identification, Risk Assessment, Permit to Work and any other associated systems.

Unit-wide Knowledge

- How to use ‘Safe Systems of Work’ processes to identify hazards and mitigate or reduce risks to as low as reasonably practicable (ALARP)
- How to select, use and care for PPE (to include sight/hearing protection, coveralls, coveralls, gloves, footwear, hard hats, respirators)
- The implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- How to interpret operational requirements (e.g. Policies, procedures, instructions, codes of practice, standards, schedules)
- Plant layout and its connection with other systems
- Equipment internals and their function
- Functioning of process control including instrumentation and logic
- Sources of information and interpretation of drawings and manuals regarding the plant
- Effects of Emergency Shutdown control systems
- Effects of Fire and Gas control system
Element PT2.3.1  Prepare For Process System Shutdown

Performance Statements

In achieving this unit you must have:

1. effectively obtained operational instructions
2. accurately determined shutdown time and made appropriate preparations for shutdown
3. effectively briefed relevant personnel on shutdown procedures
4. accurately identified real and potential hazards and protected against them
5. ensured that all information supplied and recorded is accurate, complete and legible
6. worked safely in accordance with operational instructions and associated Safe Systems of Work

Knowledge and Understanding

You must know and understand:

1. how to access and interpret (oral and written) shutdown instructions
2. how to access and interpret operational instructions (to include sequence of shutdown, recommended rate of shutdown)
3. the real and potential shutdown hazards (to include standby equipment operational, vents, noise, heat)

Element PT2.3.2  Shut Down the Process System

Performance Statements

In achieving this unit you must have:

1. accurately input and set shutdown settings, process variables and services
2. safely shut down the process system
3. effectively protected against shutdown hazards
4. effectively monitored shutdown and corrected faults and problems as appropriate
5. isolated plant and utilities from operating sources
6. worked safely in accordance with operational requirements and associated Safe Systems of Work

Knowledge and Understanding

You must know and understand:

1. how to input and set shutdown settings, process variables and services
2. the real and potential shutdown hazards (to include standby equipment operational, vents, noise, heat)
3. how to isolate plant and utilities from operating sources