

COGPOH17 - SQA Unit Code D7SB 04

Isolate and reinstate process plant and equipment



Overview

This unit is about preparing the plant and equipment for isolation and reinstatement.

This unit deals with the following:

- 1 Prepare plant and equipment for maintenance
- 2 Isolate plant and equipment
- 3 De-isolate plant and equipment

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

Previous version:

Unit PT3.4 Processing Operations Hydrocarbons NOS – November 2006

Performance criteria

You must be able to:

- P1 effectively obtain instructions and organise work correctly
- P2 ensure that the relevant parts of the Safe Systems of Work system are operated effectively
- P3 relevant personnel are briefed and work allocated to optimise effectiveness of preparation
- P4 correctly prepare plant and equipment
- P5 effectively maintain your work area to be clean and hazard free
- P6 ensure all information supplied and recorded is accurate, complete and legible
- P7 work safely in accordance with operational requirements and associated **Safe Systems of Work**
- P8 effectively monitor preparations and minimize risks to personnel, environment, process, plant and equipment
- P9 effectively test for ingress of liquid and gas and confirm safety of the plant and equipment
- P10 effectively monitor and maintain the status of the isolation
- P11 effectively de-isolate plant and equipment
- P12 monitor de-isolation and minimize risks to personnel, environment, process, plant and equipment
- P13 effectively carry out leak detection tests and confirm the plant and equipment safe to return to service

Knowledge and understanding

You need to know and understand:

- K1 how to use “Safe Systems of Work” processes to identify hazards and mitigate or reduce risks to as low as reasonable practicable (ALARP)
- K2 how to select, use and care for Personal Protective Equipment (PPE) to include sight/hearing protection, coveralls, gloves, footwear, hard hats, respirators
- K3 the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- K4 how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules)
- K5 equipment internals and their function
- K6 functioning of process control including instrumentation and logic
- K7 methods and limitations of depressurisation/pressurisation, blowdown, temperature, relief systems, drains, flares, vents
- K8 sources of information and interpretation of drawings and manuals regarding the plant
- K9 how to work with and within the relevant parts of the Safe Systems of Work system
- K10 all relevant sources of energy to prime movers
- K11 properties of purging media
- K12 composition and properties of feedstock (to include toxicity, flammability, specific gravity and temperature)
- K13 effects of emergency shut down control systems
- K14 effects of fire and gas control system
- K15 isolation devices and methods of installation
- K16 how to access and interpret instructions (to include process system specification, production schedule, covering different plant and equipment)
- K17 how to deal with oral and written information (e.g. include work activity briefing provided to others, clarification of operational instructions, work activity recording)
- K18 the factors impacting upon optimising performance (to include layout, tools and equipment required, purging medium required)
- K19 how to identify hazards (to include spillages, uncontrolled emissions, extreme weather conditions)
- K20 how to carry out the tests for ingress of liquid and gas
- K21 how to access and interpret operational instructions on safety, downtime, tools and equipment used
- K22 how to minimise risks through appropriate reporting, adjusting, recording
- K23 the principles of de-isolation
- K24 the limits of your own responsibilities

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- K25 how to access and interpret instructions (to include safety, downtime, integration of processes)
- K26 how to deal with oral and written information (to include reinstatement completion details, work activity details)

Additional Information

Scope/range

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

- 1 wells
- 2 oil storage/discharge process
- 3 gas process
- 4 oil/gas process and export
- 5 water injection
- 6 metering
- 7 utilities

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

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

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