

COGDO20

Participate in starting up equipment in downstream operations



Overview

This unit is about your contribution to starting up equipment. This must include rotating equipment, non-rotating and storage equipment, heat transfer equipment, control equipment.

This unit deals with the following:

1. Prepare to start up
2. Start up equipment
3. Communicate information during start-up
4. Recognise and communicate abnormal start-up conditions

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

Previous version:

Adapted from Unit 2 of Refinery Field Operations NOS – version April 2005

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Performance criteria

- You must be able to:*
- P1 Obtain relevant authorisation for start-up to proceed
 - P2 Correctly identify equipment and checked status
 - P3 Correctly follow operational procedures for checks and tests
 - P4 Identify the locations of emergency isolation valves and their reset mechanisms
 - P5 Identify any discrepancies between the plant drawings and the procedures
 - P6 Report any discrepancies to the appropriate personnel
 - P7 Correctly line up the equipment
 - P8 Ensure that the appropriate personnel know that start-up is imminent
 - P9 Correctly start up equipment in accordance with specified procedures
 - P10 Achieve operational conditions at each stage before proceeding to the next
 - P11 Achieve normal operating conditions within required timescale
 - P12 Inform relevant personnel when start-up is complete
 - P13 Complete all relevant documentation
 - P14 Identify abnormal conditions
 - P15 Inform the appropriate personnel about the impact the abnormality
 - P16 Work safely in accordance with operational requirements

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Knowledge and understanding

Within the limits of your responsibility you must demonstrate that you know and understand:

You need to know and understand:

- K1 How to access relevant documentation (e.g. permits, standard operating procedures)
- K2 The function of the equipment (to include rotating, non-rotating and storage, heat transfer, control) to be started in the operation of the plant and process
- K3 The properties of the material contained in the equipment
- K4 The potential hazards associated with checks and tests (e.g. visual inspection, equipment integrity tests, line-up)
- K5 The start-up and operating procedures for the equipment
- K6 The start-up over-ride procedures for the equipment
- K7 Line up and control systems as on process and instrumentation diagrams
- K8 Trip systems and logic sequences
- K9 The reasons for the defined sequence in the start-up and the consequences of not following it
- K10 The reasons for timing of each stage
- K11 The reasons for operating equipment (to include rotating, non-rotating and storage, heat transfer, control) to specified conditions
- K12 The possible process excursions and acceptable tolerances
- K13 The normal range of operating conditions and acceptable conditions
- K14 The reasons for achieving conditions within a given timescale
- K15 The consequences of correct conditions not being achieved
- K16 Alarm systems
- K17 Operating conditions and parameters
- K18 Who to contact in the event of any abnormal condition
- K19 The parameters to be measured, checked and the acceptable tolerances (e.g. equipment integrity tests, line-up)
- K20 The reasons for recording the equipment conditions (to include rotating, non-rotating and storage, heat transfer, control conditions including unusual process readings)
- K21 The nature and extent of information to be communicated (e.g. status of start-up equipment, status of interconnected plant and equipment)
- K22 The appropriate selection and effective use of communication (e.g. face to face, telephone, radio, written) links between field operators and others
- K23 The importance of clarity and accuracy
- K24 The location of equipment records and methods of recording
- K25 How to identify abnormal conditions (to include those associated with mechanical, electrical and instrument integrity)
- K26 The appropriate responses to alarm conditions including higher authority
- K27 The potential hazards during start-up and the actions to be taken

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- K28 The consequences of delayed response to hazards
- K29 How to identify the need for appropriate assistance, the correct people and where to find them
- K30 The availability of standby equipment
- K31 The emergency procedures

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Additional Information

Scope/range related to performance criteria

This unit includes the following:

1. how to select, use and care for personal protective equipment (e.g. sight/hearing protection, gloves, footwear, hard hats, respirators)
2. the implications of statutory legislation and organisational requirements
3. how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules) as they apply to your job role
4. plant and equipment (to include rotating, non-rotating and storage, heat transfer, control) start-up procedures
5. the operating principles of equipment (to include rotating, non-rotating and storage, heat transfer, control)
6. plant layout and operating manuals
7. how to work with and within your permit to work system

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