

Starting up equipment in downstream operations

Overview

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

This standard deals with the following:

- 1 Prepare to start up
- 2 Start up equipment
- 3 Communicate information during start-up
- 4 Correct 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.

This Standard is suitable for those working in the downstream fuel environment.

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 inform appropriate personnel 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 stage, responding and reporting any exceptions or abnormal conditions
 - 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 at each stage of the start up process
 - P15 take prompt and appropriate action to correct the abnormality, including the procedures required if the abnormality continues and does not respond your corrective actions
 - P16 identify the impact of the abnormality on other areas and inform relevant personnel
 - P17 work safely in accordance with operational and safety requirements

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Knowledge and understanding

You need to know and understand:

- K1 how to select, use, maintain and report defects in PPE
- K2 the implications and responsibilities of statutory and organisational requirements
- K3 how to interpret operational requirements
- K4 plant and equipment start-up procedures, ensuring all safety guards are in place and adequate
- K5 plant layout and operating manuals
- K6 how to work with and within the Permit to Work system
- K7 how to access relevant documentation (including permits, standard operating procedures)
- K8 the function of the equipment (including rotating, non-rotating and storage, heat transfer, control) to be started in the operation of the plant and process
- K9 the properties of the material contained in the equipment and plant
- K10 the potential hazards associated with checks and tests
- K11 the start-up over-ride procedures for the equipment
- K12 line up and control systems as on process and instrumentation diagrams
- K13 trip systems and logic sequences
- K14 the reasons for the defined sequence in the start-up and the consequences of not following it
- K15 the reasons for timing of each stage
- K16 the reasons for operating equipment to specified conditions
- K17 the possible process exceptions and acceptable tolerances
- K18 the normal range of operating conditions and acceptable conditions
- K19 the reasons for achieving conditions within a given timescale
- K20 the consequences of correct conditions not being achieved
- K21 alarm systems
- K22 operating parameters
- K23 the parameters to be measured, checked and the acceptable tolerances
- K24 the reasons for recording the equipment conditions. The nature and extent of information to be communicated
- K25 the appropriate selection and effective use of communication links between field operators and others
- K26 the importance of clarity and accuracy
- K27 the location of equipment records and methods of recording
- K28 how to identify abnormal conditions
- K29 the appropriate responses to alarm conditions
- K30 the potential hazards during start-up and the actions to be taken
- K31 the consequences of delayed response to hazards, unsafe conditions and alarms

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K32 how to identify the need for appropriate assistance and where to find it

K33 the availability of standby equipment

K34 the emergency procedures and the action to be taken

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Developed by	Cogent
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Version Number	2
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Date Approved	March 2019
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Indicative Review Date	March 2024
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Validity	Current
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Status	Original
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Originating Organisation	Cogent
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Original URN	DO2
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Relevant Occupations	Engineering and manufacturing technologies; Engineering; Process, Plant and Machine Operatives; Plant and machine operatives n.e.c
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Suite	Downstream Operations
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Keywords	start up, equipment, prepare, communicate, information, correct, abnormal, safety
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