
Overview

This unit is concerned with ensuring that through safe and efficient pre-planning monitoring and control by the FPSO/FSU Control Room tank entry activities can, where practical, take place during ongoing cargo and marine operations.

This unit deals with the following:

- 1 Tank entry, inspection and maintenance

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 MOT4 National Occupational Standards in FPSO/FSU – April 2005

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Control tank entry, inspection and maintenance

Performance criteria

- You must be able to:*
- P1 pre-plan washing and tank entry activities to enable co-ordination and integration to take place with ongoing cargo and marine operations
 - P2 validate vessel, process, ballast tank status, tank priorities and hydrostatic profile
 - P3 obtain full authorisation prior to enclosed space entry
 - P4 confirm isolation requirements
 - P5 ensure the necessary panel inhibits were activated and recorded
 - P6 complete a team briefing and notify other personnel as required
 - P7 establish and maintain effective communications with supervisor/operators
 - P8 establish and monitor tank atmosphere throughout washing, entry inspection and maintenance operations
 - P9 ensure tank washing operations were completed in accordance with tank entry requirements
 - P10 ensure tank entry, for inspection and maintenance, was carried out in accordance with operational procedures and guidelines
 - P11 establish inspection and maintenance were carried out in accordance with requirements
 - P12 monitor operations for potential abnormal situations and deal with them as appropriate
 - P13 confirm removal of isolations on completion of operations
 - P14 ensure necessary panel inhibits were deactivated
 - P15 update the log keeping records

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Knowledge and understanding

You need to know and understand:

- K1 the characteristics which affect crude oil washing
- K2 the procedures necessary for washing and tank entry pre-planning activities to be coordinated and integrated with ongoing cargo and marine operations
- K3 how to carry out pre-planning to take into account adverse weather conditions, normal weather conditions, restricted space, enclosed space
- K4 how to validate vessel, process, ballast, tank status, tank priorities (to include crude oil washing, hot water washing, inerted, purged, gas freed) and hydrostatic profile (to include list, trim, draft)
- K5 the precautions to avoid electrostatic generation
- K6 the procedures necessary to obtain full authorisation prior to enclosed space entry
- K7 how to confirm isolation requirements necessary
- K8 how the necessary panel inhibits are activated, ensured and recorded
- K9 how to conduct an effective team briefing and notify relevant personnel
- K10 the procedures necessary to monitor tank atmospheres throughout washing entry, inspection and maintenance operations (to include oxygen analyser, tank scope, explosimeter)
- K11 how to establish tank washing operations are completed in accordance with tank entry requirements
- K12 the operational procedures and guidelines necessary to ensure tank entry for inspection and maintenance is carried out safely
- K13 how to establish that inspection and maintenance activities meet requirements
- K14 the procedures necessary to effectively monitor operations for potentially abnormal situations
- K15 how to safely and effectively deal with abnormal situations
- K16 how to confirm the removal of isolations on completion of operations
- K17 how to ensure the necessary panel inhibits have been de-activated
- K18 how to clearly and accurately update the log keeping records
- K19 how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- K20 the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- K21 how to interpret operational requirements (e.g. relevant policies, procedures, instructions, codes of practice, standards and schedules)
- K22 the safety measures that need to be put in place and all the safety practices/procedures that need to be adhered to
- K23 how to locate and identify all control room equipment using P + ID's as appropriate
- K24 how to carry out effective shift handovers and maintain continuity

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- K25 how to carry out positive reporting of instructional actions, tasks, safety measures and checks, ensuring they are clear accurate and complete
- K26 the layout of appropriate working areas (e.g. control room, control stations)
- K27 the structure/function/operation of: process flows, ballast system, cargo system, crude oil washing, inert gas system, cargo heating system, FPSO/FSU mooring system, bunkering systems (e.g. polymers, potable water, lube oil, diesel), instrument and plant air, vessel cooling water, diesel system and hydraulic system using P + ID's and Process Flow Diagrams as appropriate
- K28 the location of process high pressures, high temperatures and the relevant safety measures
- K29 the procedures necessary to carry out effective trouble shooting
- K30 the location, function and operation of ESD systems using P & ID's as appropriate
- K31 how to establish/maintain effective fixed/mobile communications with relevant internal/external personnel (e.g. supervisor, other operators, supply vessels)
- K32 the permit to work system

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