COGFPSO10
Plan and prepare for FPSO/FSU shuttle tanker operations (Passive Weather Vaning)

Overview

This unit is concerned with ensuring that safe and efficient planning and preparation are carried out for cargo offloading operations by the FPSO/FSU Control Room when the FPSO/FSU is weather vaning i.e. no heading control of the FPSO/FSU.

This unit deals with the following:
1 Plan and prepare to start up shuttle tanker operations

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 MOT10 National Occupational Standards in FPSO/FSU – April 2005

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Performance criteria

You must be able to:

P1 carry out FPSO/FSU/field operational pre-planning
P2 update impact of weather conditions on operations
P3 evaluate mooring operational requirements against operational parameters and prevailing weather conditions
P4 update operational pre-planning as required
P5 review and confirm shuttle tanker operations/offloading plan
P6 conduct team briefings
P7 establish and maintain effective communications with relevant parties
P8 confirm as suitable vessel, ballast, tank status, tank priorities and hydrostatic profile
P9 ensure pre-operational operations/checks are completed
P10 supervise co-ordinate hawser and hose transfer operations
P11 verify cargo system, ballast system and inert gas system status
P12 exchange operational information and documentation with shuttle tanker

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Knowledge and understanding

You need to know and understand:

K1 the procedures necessary to carry out FPSO/FSU/field operational pre-planning

K2 how to update operations taking into account the impact of weather conditions (e.g. heavy weather, adverse weather, normal weather)

K3 the procedures for reviewing and agreeing shuttle tanker operations/offloading plan

K4 how to conduct effective team briefings

K5 the procedures for validating vessel, ballast, tank status and tank priorities

K6 the procedures for validating the hydrostatic profile (e.g. trim, stability, stress) – to include list, trim, draft

K7 how to carry out line pressure tests prior to cargo operations and COW'ing

K8 the pre-operational operations/checks (to include pre-mooring, routine checks on hawser/hose)

K9 how hawser/hose transfer operations should safely and effectively be carried out

K10 the procedures necessary to maintain effective supervision and coordination of hawser/hose connection activities with shuttle tank

K11 how to verify cargo system, ballast system and inert gas system status

K12 procedures for exchanging operational information and documentation with shuttle tanker (e.g. cargo nomination, vessel particulars, notice of readiness, operational parameters, shutdown parameters, cargo and ballast handling plans, communication and back up systems)

K13 the location and identity of all control room equipment using P + ID's as appropriate

K14 the layout of appropriate working areas (e.g. control room, control stations)

K15 the layout/function/operation of: process flows, ballast system, cargo system, crude oil washing, inert gas system, cargo heating system, cargo metering, cargo offloading system, shuttle tanker mooring 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

K16 the location of process high pressures, high temperatures and the relevant safety measures

K17 how to carry out effective trouble shooting procedures

K18 the location, function and operation of ESD systems using P & ID's as

appropriate

K19 how to carry out effective handovers between shifts and maintain continuity

K20 how to carry out positive reporting of instructional actions, tasks, safety measures and checks ensuring reports are clear, accurate and complete

K21 the emergency procedures relevant to the cargo handling system

K22 the emergency procedures relevant to the ballast control system

K23 the emergency procedures relevant to shuttle tanker operations

K24 working understanding of the terms TPC, MCTC, KG, KM, LCB, C of G, Moments, Displacement, Reserve Buoyancy, angle of Loll, Volume, RVP, BS & W

K25 the minimum and maximum allowable draft

K26 the maximum allowable trim and reason(s) for limitation

K27 effects on vessel due to loading or discharging weights on draft, freeboard, trim, list, density (of water and crude oil)

K28 effects on vessel of staggered loading conditions

K29 terms and consequences of FS Effect, Stiff and Tender ship, Hogging and Sagging, Stable, Unstable and Neutral Equilibrium

K30 terms and effects of shear force and bending moments, compressive and tensile loadings, area under curve of stability

K31 tensile loadings

K32 information sources in relation to the performance of manual calculations

K33 the routine checks on the loading calculator/computer equipment

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Developed by	Cogent
Version number	1
Date approved	June 2009
Indicative review date	June 2011
Validity	Current
Status	Original
Originating organisation	Cogent
Original URN	FPSO10
Relevant occupations	Engineering and manufacturing technologies; Engineering; Process, Plant and Machine Operatives; Plant and Machine Operatives
Suite	Floating Production & Storage Offload (FPSO)
Key words	safe, efficient, planning, preparation, cargo offloading, operations, weather