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Contribute to the preparations for the product transfer in jetty operations



Overview

You will be involved in activities such as:

- 1 Determine product transfer requirements
- 2 Confirm that equipment and systems are operating correctly prior to product transfer operation
- 3 Prepare equipment prior to product transfer operation

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

Previous Version: Liquid Transfer & Storage National Occupational Standards
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Performance criteria

- You must be able to:*
- P1 obtain accurate details of product/s to be transferred
 - P2 determine the required transfer conditions and equipment
 - P3 check the availability of required transfer equipment on the ship and shore
 - P4 establish the sequence of product/s transfer
 - P5 deal promptly and effectively with problems that are your responsibility, and report those that you cannot solve and/or are not your responsibility to the relevant person
 - P6 communicate all relevant information to the appropriate people
 - P7 work safely in accordance with operational and environmental requirements
 - P8 check and confirm with the ship that it is safe to connect/disconnect systems
 - P9 check and confirm before connection, that all telephones/emergency umbilicals have been tested to prescribed procedures
 - P10 connect all telephones/emergency umbilicals to the correct sockets according to prescribed procedures
 - P11 ensure that communications between ship and shore are of an acceptable quality
 - P12 check and confirm that it is safe to activate and de-activate systems
 - P13 confirm that all appropriate systems are activated and de-activated
 - P14 prepare and test hoses and loading arms to prescribed procedures, prior to connection
 - P15 confirm that hoses and loading arms are operational and compatible with the product and max line pressures
 - P16 prepare and test vapour return lines to prescribed procedures prior to connection
 - P17 confirm that vapour return lines are operational
 - P18 test and confirm that the emergency disconnection system is operational
 - P19 obtain and check that all tools and equipment that are needed for connection/ disconnection operations are available and in workable condition
 - P20 check that hoses are slung/supported and/or stowed correctly
 - P21 check that loading arms are set and/or stowed correctly
 - P22 check that hoses/loading arms are connected/disconnected correctly according to prescribed procedures
 - P23 provide and position spill containment and clean-up equipment prior to connection/ disconnection of loading arms/hoses
 - P24 confirm that ship's scupper plugs will be kept in place
 - P25 check and confirm shore lines are properly set
 - P26 check and confirm loading arms/hoses on the berth are lined up with the

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- appropriate manifolds on the ship
- P27 check all emergency stop buttons are correctly set
- P28 prepare transfer lines and systems according to prescribed procedures
- P29 clean transfer lines and systems according to prescribed procedures
- P30 sample and check the cleanliness of transfer system
- P31 determine possible level of contamination after cleaning and take appropriate action
- P32 line up and connect vapour return lines
- P33 ensure safe operation of the vapour return

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Knowledge and understanding

You need to know and understand:

- K1 how to obtain accurate details of the product to be transferred
- K2 how to determine required transfer conditions, taking account of all products' characteristics
- K3 how to determine transfer equipment requirements
- K4 how to check the availability of transfer equipment
- K5 how to establish the transfer sequence
- K6 why it is important to establish the correct transfer sequence
- K7 the procedures that need to be followed
- K8 the connection/disconnection and test procedures for telephones and emergency umbilicals
- K9 go to check and confirm that all telephones/emergency umbilicals have been tested prior to use
- K10 how to ensure that all telephones/emergency umbilicals are connected to the correct sockets
- K11 how to establish and test radio communication links between ship and shore
- K12 how to ensure that communication is of an acceptable quality between ship and shore
- K13 the radio communication techniques and procedures to use to ensure acceptable quality
- K14 how to stow correctly telephones and emergency umbilicals
- K15 how to check and confirm with the incoming ship that it is safe to connect/disconnect
- K16 how to check and confirm with the shore that it is safe to de-activate systems
- K17 what are the appropriate systems that need to be activated and de-activated
- K18 how to check and confirm that all of the appropriate systems are activated and de- activated
- K19 how to obtain and use information concerning hoses and loading arms
- K20 how to prepare and test hoses and loading arms according to prescribed procedures
- K21 how to confirm that hoses and loading arms are operational
- K22 how to prepare and test vapour recovery lines according to prescribed procedures
- K23 how to confirm that vapour recovery lines are operational within agreed parameters
- K24 how to test and confirm that the emergency disconnection system is operational
- K25 the tools and equipment that may be required during connection operations

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- K26 how to obtain required tools and equipment and check that they are in working order
- K27 methods of slinging, supporting and stowing hoses
- K28 how to check that hoses have been slung/supported and or stowed correctly
- K29 methods of setting and stowing loading arms
- K30 how to check that loading arms have been set/stowed correctly
- K31 how to check that loading arms/hoses have been connected/disconnected according to prescribed procedures
- K32 how to obtain spill containment equipment
- K33 when and where to position spill containment equipment
- K34 how to check and confirm shore lines are set
- K35 how to identify pipes and valves
- K36 how to check and confirm that ship's manifolds are lined up with transfer equipment on the berth
- K37 the prescribed procedures for the preparation of transfer lines and systems
- K38 how to follow these procedures and why it is important

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Additional Information

Scope/range related to performance criteria

- 1 Determine transfer requirements for any transfer operation likely to be handled by your terminal. This may include:
 - 1.1 cargo, bunkers/ballasts
 - 1.2 slops
 - 1.3 oily mixtures
- 2 To include:
 - 2.1 obtaining accurate details of product/s to be transferred
 - 2.2 determining the required transfer conditions
 - 2.3 taking account of any chemical and physical properties of product
 - 2.4 determining required transfer equipment including measurement and sampling equipment
 - 2.5 establishing the sequence of transfer
- 3 Follow procedures and check and confirm with either the vessel and/or shore that:
 - 3.1 it is safe to connect/disconnect
 - 3.2 it is safe to de-activate systems
 - 3.3 all appropriate systems are de-activated
- 4 Check and confirm that telephones/emergency umbilical's are tested, safely connected, disconnected and stowed
- 5 Establish and test radio communication links taking account of all of the following:
 - 5.1 call signs
 - 5.2 language/terminology
 - 5.3 frequencies
- 6 Prepare and test hoses and loading arms prior to connection according to prescribed procedures. Procedures to cover confirmation of the following:
 - 6.1 hoses/loading arms to be suitable for vessel, cargo, temperature and tidal range
 - 6.2 pressure test of hoses/loading arms to be in date
 - 6.3 hard arm movements to be within set limits
 - 6.4 de-pressurising/draining/purging and/or inerting of hoses and loading arms
 - 6.5 quick release systems
 - 6.6 expansion/contraction fittings
 - 6.7 return vapour hoses and connections
- 7 Ensure that cargo and return vapour hoses and loading arms are balanced, slung, supported and connected/disconnected correctly, and

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visually check that all counter balances are in place

- 8 Ensure containment of possible spillage by using all of the following:
 - 8.1 bleed valves and blow-down equipment
 - 8.2 drip trays and 'save alls'

- 9 Check and confirm appropriate lining up of terminal and vessel transfer facilities taking account of all of the following:
 - 9.1 layout of the terminal's pipe work and pumping system
 - 9.2 colour coding systems for identification of pipes and valves
 - 9.3 identification of appropriate vessel connections

- 10 Prepare transfer lines according to prescribed procedures and test the:
 - 10.1 integrity of isolation valves
 - 10.2 availability of isolation flanges, spools, drains, spades and U bends

- 11 Line up vapour return lines correctly according to transfer route, ensuring that:
 - 11.1 vapour return lines are lined up to the appropriate plant at the terminal, vapour return lines are correctly connected to the vessel's manifold, vessel's personnel confirm that the vessel's vapour return lines are connected to the shore vapour return line

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