

## **GUIDANCE ON CONDUCTING INSPECTIONS ON FIXED PLATFORMS**

This enclosure is provided for use in conducting inspections of fixed platforms on the U.S. Outer Continental Shelf. Each area of the regulations for fixed platforms in 33 CFR Subchapter N is addressed.

### **1. General Platform Information:**

- (a) Well jackets or single-well caissons are considered platforms and shall be inspected in accordance with 33 CFR Subchapter N.
- (b) Platforms that are connected by catwalks are inspected as separate platforms. If adequate, these catwalks can be considered a secondary means of escape (see D8(m) Policy Ltr 05-2003). Also, when catwalks connect two or more platforms and one in the arrangement is manned, it does not automatically make all of the platforms in that complex connected by catwalks manned structures. Each platform in the complex must be evaluated on its own merits.
- (c) Workover (skidover) drilling packages placed on board a fixed OCS platform must meet the requirements of 33 CFR Subchapter N. A special inspection should not be scheduled exclusively for the purpose of examining the workover (skidover) drilling package. This equipment should, however, be examined in the course of a normal company self-inspection or during MMS or Coast Guard inspections.
- (d) The following guidelines are provided to determine if a platform is manned or unmanned. If personnel routinely work on or are otherwise accommodated on a platform for more than twelve (12) hours a day, it is a manned platform. This applies even if there are no living quarters on the structure. When two or more structures are joined, each structure should be considered separately. If, for example, the only person on an adjoining platform is an employee making a security round, and then returning to a manned platform, the adjoining platform is considered unmanned. If a company brings a crew on an unmanned platform for a project that lasts for several days or weeks (blasting, painting, wirelining, etc.) then the platform maintains its unmanned status. This type of temporary job should not be interpreted to mean that a platform is "routinely accommodated." Unmanned platforms will not normally be considered manned during temporary crewing evolutions provided the following conditions are met:
  - (1) The facility is temporarily crewed for the purpose of conducting either scheduled or unscheduled maintenance or repair activities;
  - (2) The period of temporary accommodation does not exceed 30 days;

- (3) The cognizant OCMI, in whose zone the platform is located is notified, in writing, prior to the crew arrival on the platform;
- (4) Notification includes the scope and duration of the proposed work;  
and
- (5) The leaseholder has established a means to ensure the safe evacuation of the work crew should an emergency arise.

## **2. Documents and Plans:**

- (a) Station Bill: Contains special duties and duty stations of platform personnel in case of an emergency. It contains the signals for emergency stations and for the abandonment of the facility. It also lists the use and application of any special equipment to be provided in an emergency. The station bill is to be signed by the person-in-charge (of each crew if there are more than one) and copies are to be posted in conspicuous places on the platform.
- (b) Emergency Evacuation Plan (EEP): Submitted for approval to the cognizant OCMI and contains the information required by 33 CFR 146. EEPs apply to MODU's conducting drilling operations as well as manned fixed platforms.
- (c) Self-inspection Report (CG Form 5432): A copy of the self-inspection report shall be maintained on the platform. If the platform is not manned, the report can be maintained at an adjacent platform or in the operator's office if there are no manned platforms in the area.
- (d) Fire fighting and lifesaving servicing reports for manned platforms shall be maintained on the platform and made available for review.
- (e) Drills: Emergency drills shall be conducted in accordance with 33 CFR 146.125. Records of required drills shall be maintained as required by 33 CFR 146.125(d) and made available to the Coast Guard or MMS upon request.

## **3. Workplace Safety:**

- (a) In accordance with the MOU between the Coast Guard and OSHA dated 19Dec79, the Coast Guard has authority to promulgate and enforce safety and health regulations for working conditions on the United States OCS.
- (b) 33 CFR 142.4 states that each facility shall be "maintained in compliance with workplace safety and health regulations of this part and in addition, free from recognized hazards." The self-inspection is not designed to be a comprehensive review of all existing safety standards that affect a platform and its operation. However, in terms of personnel protection, fire fighting, lifesaving, and other areas covered in Subchapter N, it may be necessary to

refer to other standard making bodies for clarification and direction. For example, the National Fire Protection Association (NFPA) has extensive guidance on servicing of all types of fire fighting equipment. A third party servicing company or operator is justified in conducting testing and inspections to NFPA standards. Additionally, OSHA has extensive workplace safety regulations in 29 CFR 1910, which have been used in the past to substantiate judgment calls as to acceptable safe practices. The American Petroleum Institute (API), National Electrical Code (NEC), American National Standards Institute (ANSI), American Bureau of Shipping (ABS), and the American Society of Mechanical Engineers (ASME) all publish guidance that effectively establishes industry standard practices. Standards developed by organizations such as these should be considered when the regulations in 33 CFR Subchapter N do not address a specific situation.

- (c) Based on past experience, the following items are prime areas of concern in workplace safety:
- (1) Personal protective clothing/equipment, eye, head and foot protection
  - (2) General cleanliness/condition
  - (3) Tripping hazards/oil on decks
  - (4) Conditions of wire ropes
  - (5) Safety belts and lifelines
  - (6) Hearing protection in high noise areas
  - (7) Eyewash equipment
  - (8) Unprotected switchboards
  - (9) Safety equipment on cranes

#### **4. Design and Equipment:**

- (a) Platform structures are designed in accordance with API Recommended Practice 2A: Planning, Designing and Constructing Fixed Offshore Platforms. The Minerals Management Service (MMS) is responsible for initial review and approval of fixed offshore platform installations, including any helicopter landing and refueling facilities.
- (b) Lights and warning devices: OCS platforms are considered Class "A" structures as defined in 33 CFR 67.

- (1) Obstruction lights must have 360 degree lenses, display a quick-flash characteristic of approximately 60 flashes per minute, sufficient candlepower to be visible at least five (5) miles, and displayed at a height not less than twenty (20) feet above the water. When more than one light is displayed, all lights shall be operated to flash in unison. Lights on Class "A" structures shall be white. Obstruction lights are to be displayed at all times between the hours of sunset and sunrise and during periods of reduced visibility.
  - (2) Structures having a maximum horizontal dimension of 30 feet or less on any one side or diameter shall be required to have one obstruction light with 360 degree visibility. Structures having a maximum horizontal dimension of over 30 feet but not more than 50 feet shall be required to have two obstruction lights installed on diagonally opposite corners, or 180 degrees apart on circular structures. Structures having horizontal dimensions of over 50 feet shall be required to have an obstruction light on each corner, or 90 degrees apart on circular structures.
  - (3) Fog signaling devices are required on all structures. The horn is required to sound a 2 second blast every 20 seconds (2 second blast, 18 seconds silence), be audible for a range of 2 miles, be operated whenever visibility drops below 3 miles, be U.S. Coast Guard approved, and be located 10-150 feet above the water.
- (c) Rails, guards, and gratings shall be installed and maintained in accordance with 33 CFR 143.110. A cage shall enclose vertical ladders in excess of 20 feet. Rust, pitting, and general corrosion are not generally considered to be sufficient justification for requiring renewal of rails, guards or gratings. Wastage, deformation, missing parts, or significant deterioration that weakens these items shall be cause for renewal.
- (d) A primary means of escape shall be installed to meet the requirements in 33 CFR 143.101. A secondary means of escape shall be constructed and installed to the satisfaction of the cognizant OCMI or MMS. Item (8) of this enclosure is the recommended standard for constructing and maintaining man ropes and swing ropes. Particular attention should be given to man ropes and swing ropes due to weathering of the ropes and the dangers that are encountered when using these devices. See D8(m) Policy Ltr –5-2003 regarding means of escape on single-well caissons and use of catwalks.
- (e) Helicopter facilities: MMS is responsible for helicopter deck installations including helicopter refueling facilities. API RP 2L, Recommended Practice for Planning, Designing and Constructing Heliports for Fixed Offshore Platforms, should be used as a guide for helicopter facilities on fixed offshore platforms.

- (f) Cranes: Offshore crane design and operator qualification on platforms is the responsibility of the MMS. However, workplace safety items such as handrails, guards, fire extinguishers, crane hook safety latches, lighting, hand signal charts, boom angle indicators and weight load charts should be verified by USCG inspectors during initial inspections or by MMS during spot check inspections.

## **5. Fire Protection Equipment:**

- (a) On all manned platforms, approved type portable and semi-portable fire extinguishers shall be installed in accordance with 33 CFR 145. On all unmanned platforms, approved type portable and semi-portable fire extinguishers are required to be installed only when crews are working on the platform.
- (b) All fire extinguishers on a platform are required to be serviced and inspected annually by a servicing company or by company personnel. The servicing report should be reviewed in addition to spot-checking the fire extinguishers. All excess fire fighting equipment (above the number and types required) on the platform must be an approved type and serviced and inspected the same as the required equipment.
- (c) A fire main system is not required by the regulations in 33 CFR Subchapter N; however, if one is installed, the system and all hoses shall be tested under pressure. Where foam fire fighting systems exist, an inspection of the installation shall be conducted. In addition, an annual foam analysis shall be conducted to ensure the foam is suitable for continued use.
- (d) Fixed fire fighting systems such as CO<sub>2</sub> and halon are not required by the regulations in 33 CFR Subchapter N. If, however, these systems are installed, they are to be serviced and inspected annually, servicing reports made available for review and spot-checked during MMS or Coast Guard inspections. Deluge and sprinkler systems for enclosed well bay areas are regulated by MMS.
- (e) Paint lockers: A paint locker is a space used for the storage of flammable liquids. Adequate ventilation is required and consideration should be given to providing a fixed extinguishing system. The location and amount of flammables carried should be taken into consideration when determining the need to install a fixed system and the proper system size. At the very least, a B-II fire extinguisher should be outside the space. In the case of an open deck mounted paint cabinet (not large enough for a person to enter) with self-closing doors, a B-II fire extinguisher or equivalent should be provided.

## **6. Lifesaving Equipment:**

- (a) Lifesaving equipment shall be provided as required by 33 CFR 144. On manned platforms, the lifesaving equipment shall be available and positioned in accordance with 33 CFR 144. On unmanned platforms, the required equipment must be available whenever personnel are on board the platform.
- (b) Lifefloats are the minimum primary lifesaving equipment required on platforms. There must be enough primary lifesaving equipment to accommodate 100% of the persons on board the platform.
- (c) Inflatable liferafts may be substituted for lifefloats. They must be serviced annually by a Coast Guard approved servicing facility. A placard containing instructions for launching the liferaft shall be conspicuously posted at the liferaft stowage location.
- (d) Survival craft (capsules or boats) may also be substituted for the required lifefloats. All components (winch, capsule/boat, davit) must be Coast Guard approved (shop inspected and stamped). At initial installation, a 1.1 weight test will be required. A 1.0 weight test will be required when the lowering cable is replaced. The MMS must be notified prior to initial installation or replacement of the falls. It is not necessary that a MMS inspector witness this test if a third party conducts the test and provides certification that the test was conducted. Falls shall be replaced at intervals not to exceed five years. Where survival craft are installed, it is important to determine whether there are adequately trained personnel on the platform to handle all aspects of the lowering, launching and operation of the survival craft. It is recommended that survival craft be launched and operated in the water quarterly, if conditions permit. Before lowering the survival craft to the water, the retrieving winch should be tested. A standby boat in the vicinity is recommended during the launching and operation of the survival craft.

## **7. Pollution Prevention:**

- (a) With the exception of transfers to or from a vessel, MMS is responsible for pollution prevention on OCS facilities. The USCG is responsible for systems installed in compliance with the applicable provisions of the pollution prevention regulations contained in 33 CFR 151-156.
- (b) Certificate of Financial Responsibility (COFR) for offshore facilities: MMS is responsible for the COFR program using the regulations found in 33 CFR 135, Subpart C. A copy of the COFR is not required to be maintained on board the facility. MMS maintains a list of responsible parties for OCS offshore facilities and can be contacted at (703) 787-1574.
- (c) The National Pollutant Discharge Elimination System (NPDES) is administered by the Environmental Protection Agency (EPA). An NPDES

permit is accepted as an equivalent to the requirements of MARPOL Annex I (see 33 CFR 151.10(h) and 151.25(m)) and MARPOL Annex II (see 33 CFR 151.43(a)). On the outer continental shelf, it establishes the amount of material that a drilling unit or platform can discharge into the water. NPDES permits usually cover floating solids and visible foam, halogenated phenol compounds, oil based drilling fluids, dispersants and detergents, and sanitary waste. Every leaseholder must have this permit and is responsible for all discharges in the lease area. Each permit covers specific geographical regions and spells out completely what is required of the operator.

- (d) MARPOL Annex V: In accordance with 33 CFR 151.73 no person may discharge garbage from a fixed or floating platform engaged in the exploration, exploitation or associated offshore processing of seabed mineral resources or any ship within 500 meters (1650 feet) of such platform. Victual waste (any spoiled or unspoiled food waste) may be discharged if it passes through a comminuter or grinder that meets requirements in 33 CFR 151.75 and the platform is beyond 12 nautical miles from nearest land. Platforms must keep records in accordance with 33 CFR 151.55 and provide waste management plans in accordance with 33 CFR 151.57.
- (e) Marine Sanitation Devices (MSD): Although not specifically required by the regulations, an MSD will normally be provided to meet the discharge and effluent characteristics of the NPDES permit. This is based on a platform having ten or more persons on board. For manned platforms with nine or less persons on board, the only requirement is that no floating solids may be present. On manned platforms with ten or more persons, an approved MSD is required.

#### **8. Construction and installation of man ropes and swing ropes on OCS platforms:**

The following suggested guidelines for man ropes and swing ropes were developed by MSO New Orleans.

- (a) Man ropes should be constructed of manila or polypropylene fiber ropes of at least 1" diameter. Such ropes can be easily grasped and have a breaking strength to support several persons. Manila provides superior strength compared to other natural fibers and has a natural roughness that aids in grasping the rope. However, manila rope is subject to mildew and water absorption, shortening its service life. Polypropylene rope has a high breaking strength but is smooth to the touch. It is highly susceptible to ultraviolet deterioration if not properly treated or stored.
- (b) Suspension of the man ropes is accomplished by an eye splice with a thimble shackled to an eye bolt. For braided rope, the construction of an eye splice involves taking a minimum of four tucks. Shackles and eyebolts are rated by the manufacturer for working strength and should be applied accordingly.

Shackles should be of the bolt type; however, if pin type shackles are used, the pin should be moused to prevent it from rolling under load.

- (c) The bitter end of the rope should be finished, preferably with a "man rope knot" or a "crown knot" and back spliced. The entire length of the rope should have overhand knots spaced 3' to 5' apart.
- (d) Man ropes do not have to be deployed at all times. The ropes can be stored on deck, attached at all times to the eyebolt. The ropes should be coiled or looped in such a way as to prevent fouling when deployed. A storage box or cover may be used to decrease the weathering of the rope and to keep the rope from being disturbed. The location of the ropes needs to be conspicuously marked in these cases. When the rope is deployed, it should come within 3' of the water.
- (e) Man ropes should be replaced immediately if there is any evidence of wear, dry rot, mildew or ultraviolet deterioration.
- (f) Swing ropes, with the exception of the "overhand knots" requirement of paragraph 8.c., are subject to all the same considerations as man ropes. The rope is usually a smaller diameter as it is used by one person at a time. Replacement is usually scheduled more frequently due to usage and the fact that they are always deployed and subject to weathering.