## MOBILE OFFSHORE DRILLING UNIT INSPECTOR
*(Option C)*

### Job Aid

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Job Aid MUI-C
Rev. Oct2018

DCN: MPS-JA-TCY-MUI-C(1)
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Use of “Option C” Mobile Offshore Drilling Unit Examination Book:

This book is intended to be used as a job aid by:
• Coastal state examiners (>12 NM) and port state control officers (≤ 12 NM) during boardings of foreign-flagged “Option C” MODUs.

This Job Aid contains an extensive list of possible examination items. It is not, however, the Coast Guard’s intention to “inspect” all items listed. As a responsibility, inspectors must verify that the vessels and their crews are in substantial compliance with international conventions and applicable U.S. laws. The depth and scope of the examination must be determined by the examiners based on their observations.

*Inspection items marked with an asterisk (*) reflect tasks that originate from pre-requisite PQS (PSCE), with cites updated for MODUs, and do not correspond to a MUI PQS task.*

This Job Aid cites the following:
• MODU regulations from the 2009 MODU Code, as amended,
• SOLAS regulations from the 2014 Consolidated Edition (SOLAS 14), and
• CFR cites are from the 2017 print edition of the referenced CFRs (unless otherwise noted).

In some cases, the cited regulations may not apply due to the keel laid date of the MODU. Examiners must pay close attention to the applicability dates of the applicable regulations when conducting MODU exams.

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFRs, NVICs and any locally produced cite guides for specific regulatory references.

**NOTE:** Guidance on how to examine mobile offshore drilling units can be found in MSM Volume II, Section G: Chapter 3: Procedures Applicable to MODUs (Foreign)
Guide to Examinations:

Pre-inspection Items

• Review MISLE records
• Obtain copies of forms to be issued

Post-inspection Items

• Issue letters/certificates to vessel
  − Forms A & B, or
  − CG-3585 Deficiency Report, and
  − COC (issue or endorse)
• Complete MISLE entries within 48 hours

SUMMARY OF FOOTNOTES pertaining to applicability of steps and references:

(a) MODU 09 14.13.5 for davit-launched liferafts goes into effect on 01Jan2020 (MSC.435(98) (09Jun2017)).
(b) Dedicated rescue boats will be required for Option C MODUs constructed on/after 01Jan2020 (MSC.435(98)).
(c) Drill floor fire extinguishing requirements will be mandatory for Option C MODUs constructed on/after 01Jan2020 (MSC.435(98)).
(d) Man overboard drills become a mandatory quarterly requirement for Option C MODUs constructed on/after 01Jan2020 (MSC.453(98)).
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### Section 1: Administrative Items

**IMO Applicability Dates:**

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**Load Line (2005 edition)** contains all amendments entered into force up-to 2003 Amendments. The following Amendments (resolutions) have entered into force since it was published. [www.imo.org](http://www.imo.org)

- MSC 172(79)                  | 01 JUL 06   |
- MSC 223(82)                  | 01 JUL 08   |
- MSC 270(85)                  | 01 JUL 10   |
- MSC 329(90)                  | 01 JAN 14   |
- MSC 356(92)                  | 01 JAN 15   |
- MSC 375(93)                  | 01 JAN 16   |

**MARPOL 2017 Consolidated** contains all amendments entered into force up-to 01 JAN 2017 Amendments. The following Amendments (resolutions) have entered into force since it was published. [www.imo.org](http://www.imo.org)

- MODU Code 2009               | 01 JAN 12   |
- MODU Code 1989               | 01 MAY 91   |
- MODU Code 1979               | 31 DEC 81   |

**Load Line 1966**             | 21 JUL 68   |
**Load Line 88 Protocol**      | 03 FEB 00   |

**Load Line (2005 edition)** contains all amendments entered into force up-to 2003 Amendments. The following Amendments (resolutions) have entered into force since it was published. [www.imo.org](http://www.imo.org)

- MSC 172(79)                  | 01 JUL 06   |
- MSC 223(82)                  | 01 JUL 08   |
- MSC 270(85)                  | 01 JUL 10   |
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MODU Applicability

Application for Insp/Exam as a MODU?

Yes

U.S. Rules

Yes

U.S. Flagged?

No

IMO MODU Safety Certificate?

Yes

Option "C" *

No

Equivalent rules requested?

No

Option "A" *

Yes

Panama or Marshall Islands?

Yes

Option "B" *

No

Option "B" *

Options A, B & C:
* 33 CFR 143.207 Design & Equipment requirements for foreign MODUs
* §146.205 Operations requirements for foreign MODUs
## Involved Parties & General Information:

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Drillship

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*Cargo Ship Certificates Voluntarily carried in addition to the MODU Safety Certificate:*

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Section 3: Inspection Items

Pre-Examination

1. Schedule inspection/examination in Maritime Information for Safety and Law Enforcement (MISLE)
   - Determine the authority, jurisdiction, and applicable regulation(s)
     - 33 CFR 140.3 & .101(a)
     - 33 CFR 143.207(c)
   - Locate vessel in MISLE
     - MPS-PR-SEC-04
     - MSM I/12.F
   - Verify documents are current in MISLE
     - MPS-PR-SEC-04
   - Review history (narratives, deficiencies & special notes)
     - MPS-PR-SEC-02 & 04
     - MMS Work Instruction
   - Verify status of user fees
     - 46 CFR 2.10-130(a)
     - MSM II/G.3.A.2.a
   - Prepare folder and required documents
     - 46 CFR 2.01-6
     - MPS-PR-SEC-04
   - Verify status of Certificate of Financial Responsibility (e-COFR)
     - 33 CFR 138.15(b) & .85
     - MMS Work Instruction
   - Generate new activity
     - MMS Work Instruction
   - Verify submittal of Environmental Protection Agency (EPA) Notice of Intent (NOI)
     - CG-543 Policy Ltr 11-01

2. Coordinate inspection/examination with vessel's representative
   - Identify vessel's representative
     - MPS-PR-SEC-02
     - MPS-PR-SEC-04
   - Confirm vessel arrival time, destination, inspection/examination based on Advanced Notice of Arrival (ANOA)
     - 33 CFR 146.202 & .215
     - MPS-PR-SEC-02
   - Articulate examination expectations
     - 33 CFR 143.207(c)
     - 33 CFR 146.205(c)
   - Verify owner/operator information
     - MPS-PR-SEC-04
   - Verify Classification Society information
     - MPS-PR-SEC-04
   - Confirm MISLE targeting score with information attained from vessel representative
     - MSM II/G.3.N

3. Conduct meeting with vessel's representative to discuss scope of the inspection/examination
   - Discuss outstanding Conditions of
     - MPS-PR-SEC-06
Class and any third party servicing report discrepancies

- Discuss examination procedures and expectations 33 CFR 143.207(c) 33 CFR 146.205(c)
- Assess ongoing operations to include well ops that could affect examination and equipment availability with Master/OIM MPS-PR-SEC-06
- Coordinate actual machinery/equipment testing procedures MPS-PR-SEC-06

4. Issue Letter of Determination (LOD)

- Determine applicability 43 USC 1356(c) 33 CFR 141.5
- Review request 33 CFR 141.15 NVIC 07-84
- Prepare LOD 33 CFR 141.5(c) NVIC 07-84
- Retain a copy, log issued LODs and secure documentation received from employers/applicants 5 USC 552 & 552a COMDTINST M5260.3

5. Mitigate potential hazards encountered during an inspection/examine

- Recognize potential hazards encountered during an exam NFPA 306
- Determine confined spaces onboard vessel MSM I/CH10
- Determine if exam scope will require a Marine Chemist certification for entry into spaces 29 CFR 1915, Part B MSM II/G.1.J.1
- Verify Marine Chemist has been scheduled for the exam (when applicable) MSM I/CH10 App. A
- Review CG policy for when to leave a space due to hazardous condition MSM I/CH10 App. A

Security

6. Verify security training & records*

- Verify presence of trained and designated Ship Security Officer SOLAS 14 XI-2/4.2 ISPS A/12.1 & 13.2
- Verify presence and approved and valid Ship Security Plan ISPS A/9.1, 9.4 & 9.8 MSM II/D.1.H.4
- Examine security drill records ISPS A/10.1.1 & 13.4 MSM II/D.1.H.7.a
- Examine security exercise records ISPS A/10.1.1 & 13.5 MSM II/D.1.H.7.a
- Examine records of crew training ISPS A/13.3 MSM II/D.1.H.7.a
- Examine Declarations of Security ISPS A/5.2 & 5.7 MSM II/D.1.H.4.j

Certificates & Documents

7. Examine Certificate of Compliance (COC)
   - Verify compliance option 33 CFR 143.207(c)
     33 CFR 146.205(c)
   - Verify particulars are accurately reflected CG-3585
   - Verify certificate is valid 33 CFR 143.210
     46 CFR 2.01-6(a)(3)

8. Examine Crew Certificates of Competency and Proficiency for Foreign-Flagged MODUs
   - Verify original credentials are onboard and valid STCW 2011I/2.11
     MSM II/G.3.A.10.c
   - Verify STCW & Flag State endorsements STCW 2011I/2, 5 thru 10
   - Verify valid medical certificate STCW 2011 I/9.3
   - Verify Transportation Worker Identification Credential (TWIC) 46 CFR 10.203(b) & (d)
   - Verify required number of Lifeboatmen MODU Code 09/14.10.4, 10.5
   - Verify letters of determination or exemption letter for foreign national(s) 33 CFR 141.15(c) & .20(f)
     NVIC 07-84
   - Verify Dynamic Positioning operator's certificate(s) is valid MODU Code 09/4.13
     IMO MSC.1/Circ.738 Rev.2

   - Determine applicability 33 CFR 140.101(e)
     MODU Code 09/1.6.7
   - Verify presence MODU Code 09/1.6.7
   - Verify validity MODU Code 09/1.6.11.8
• Review exemptions MODU Code 09/1.6.8

10. Examine Certificate of Registry*
• Verify presence 46 USC 3303
  SOLAS 14 I/13
• Verify validity 46 USC 3303

11. Examine Classification Society Certificate*
• Verify presence SOLAS 14 I/6(a)
• Verify validity SOLAS 14 I/6(a)

12. Examine International Tonnage Certificate (ITC)*
• Verify presence ICTM 69 Article 7
• Verify validity ICTM 69 Article 9
• Verify certificate form ICTM 69 Article 10

13. Examine International Load Line Certificate (ILLC)*
• Verify presence ICLL Article 16
• Verify validity ICLL Article 15
  ICLL Article 19
• Verify certificate form ICLL Article 18
• Confirm load line observed on hull (Task BN-07) matches certificate ICLL Reg 9

• Verify presence SOLAS 14 I/12(a)(ii)
  SOLAS 14 I/16
• Verify validity SOLAS 14 I/10
  SOLAS 14 I/14
• Verify certificate form SOLAS 14 I/15

15. Examine Cargo Ship Safety Equipment Certificate (CSSEC) and Record of Equipment (Form-E)*
• Verify presence SOLAS 14 I/12(a)(iii)
  SOLAS 14 I/16
• Verify validity SOLAS 14 I/8
  SOLAS 14 I/14
• Verify form of certificate & Form-E SOLAS 14 I/15

16. Examine Cargo Ship Safety Radio Certificate (CSSRC) and Record of Equipment (Form-R)*
• Verify presence SOLAS 14 I/12(a)(iv)
17. Examine Cargo Ship Safety Certificate (CSSC) and Record of Equipment (Form-C)*
   - Verify presence
   - Verify validity
   - Verify form of certificate & Form-R

18. Examine copy of Document of Compliance (ISM-DOC)*
   - Verify presence
   - Verify validity
   - Verify document form

19. Examine Safety Management Certificate (ISM-SMC)*
   - Verify presence
   - Verify validity
   - Verify certificate form

20. Examine Minimum Safe Manning Document*
   - Verify presence
   - Verify validity
   - Verify manning in accordance with document

21. Examine Medical Certificates*
   - Verify presence
   - Verify validity

22. Examine Continuous Synopsis Record (CSR)*
   - Verify presence of current record
   - Verify presence of all records from
1 July 2004

- Verify validity
  SOLAS 14 XI-1/5.3
  SOLAS 14 XI-1/5.4.1-4.3

- Verify record form
  SOLAS 14 XI-1/5.5.1
  SOLAS 14 XI-1/5.5.2

23. Examine International Ship Security Certificate (ISSC)*

- Verify presence
  SOLAS 14 XI-2/4.2
  ISPS Code A/19.2.1

- Verify validity
  ISPS Code A/19.2.2
  ISPS Code A/19.2.3

- Verify certificate form
  ISPS Code A/19.2.4

24. Examine International Oil Pollution Prevention Certificate (IOPP) and Record of Construction and Equipment (Form-A)*

- Verify presence
  MARPOL I/7 & 8

- Verify validity
  MARPOL I/10

- Verify form of certificate & Form-A
  MARPOL I/9

25. Examine International Sewage Pollution Prevention Certificate (ISPP)*

- Verify presence
  MARPOL IV/5
  NVIC 01-09 Encl. 3

- Verify validity
  MARPOL IV/8

- Verify certificate form
  MARPOL IV/7

26. Examine International Air Pollution Prevention Certificate (IAPP)*

- Verify presence
  MARPOL VI/6
  CG-543 Policy Ltr 09-01

- Verify validity
  MARPOL VI/9
  CG-543 Policy Ltr 09-01

- Verify certificate form
  MARPOL VI/8
  CG-543 Policy Ltr 09-01

27. Examine the Engine International Air Pollution Prevention (EIAPP) Certificate(s)*

- Verify presence
  MARPOL VI/13.8
  NOx Code 2.1.1.1

- Verify validity
  NOx Code 2.1.1.1

- Verify certificate(s) form
  NOx Code 2.2.10

28. Verify compliance with the Vessel General Permit (VGP)*

- Verify Notice of Intent (NOI) has been submitted
  VGP 1.5.1.1 & 10
  VGP Table 1
• Verify compliance with ballast water record keeping requirements  VGP 4.3
  CG-543 Policy Ltr 11-01
• Verify noncompliance & reportable quantity reports have been submitted  VGP 4.4.1
  VGP 4.4.2

☐ 29. Examine muster lists and emergency instructions*

  • Verify muster lists and emergency instructions are available  MODU 09/14.10.10
    MODU 09/14.11
  • Verify muster lists and emergency instructions are posted  MODU 09/14.10
    MODU 09/14.11
  • Verify information on muster lists and emergency instructions  MODU 09/14.10.11 thru .16
    MODU 09/14.11.1 & .2

☐ 30. Examine ballast water management documents*

  • Verify Coast Guard approved Ballast Water Management System  33 CFR 151.2025(a)(1)
  • Verify validity of AFS certificate  AFS
    MSM II/D.1.G.1.t
  • Verify Ballast Water Management Plan  33 CFR 151.2050(g)
    NVIC 07-04 Ch. 1

☐ 31. Examine Long-Range Identification & Tracking (LRIT) conformance test report*

  • Verify presence  IMO MSC.1/Circ. 1307
  • Verify validity  SOLAS 14 V/19-1.5
    IMO MSC.1/Circ. 1307

☐ 32. Examine Ship Energy Efficiency Management Plan (SEEMP)*

  • Verify presence  MARPOL VI/22
  • Verify validity  CG-CVC Policy Ltr 13-02

☐ 33. Examine International Energy Efficiency Certificate (IEEC)*

  • Verify presence  MARPOL VI/6
    CG-CVC Policy Ltr 13-02
  • Verify validity  MARPOL VI/8
  • Verify form  MARPOL VI/9

☐ 34. Examine Energy Efficiency Design Index (EEDI)*

  • Verify presence  MARPOL VI/20
  • Verify validity  MARPOL VI/9
  • Verify form  MARPOL VI/8
• Verify presence of Ship Energy Efficiency Management Plan (SEEMP)  
  MARPOL VI/22  
  IMO Res MEPC.203(62)

☐ 35. Examine International Anti-fouling System Certificate (IAFS)*

• Verify presence  
  AFS 2  
  MSM II/D.1.G.t

• Verify validity  
  AFS 4  
  MSM II/D.1.G.t

• Verify certificate form  
  AFS 2  
  MSM II/D.1.G.t

Logs & Manuals

☐ 36. Examine logbook entries

• Verify pre-arrival/departure checks  
  33 CFR 164.25  
  MODU 09/11.10

• Verify fire and lifesaving training/drills  
  MODU 09/14.16.1.2

• Verify lifesaving equipment deficiencies and corrective actions  
  MODU 09/14.16.1.1 & .2.6

• Verify sanitary inspections  
  ILO-147 p. 39/35

• Verify enclosed space entry and rescue drills  
  MODU 09/14.14 & 14.16.1.2

☐ 37. Examine rescue boat maintenance records and service logs/reports

• Examine record of inspection and maintenance  
  MODU 09/10.18.2  
  SOLAS 14 III/36

• Verify weekly inspection and test  
  MODU 09/10.18.7

• Verify monthly inspection  
  MODU 09/10.18.8

• Verify annual inspection and tests of launching appliance(s) and on-load release gear(s)  
  MODU 09/10.18.12

• Verify periodic servicing and tests of launching appliance(s), fall(s), winch(s) and release gear(s) overhaul  
  MODU 09/10.18.5  
  MODU 09/10.18.12.1.3 & .2.3

• Verify release hook meets IMO revised regulations  
  MODU 09/10.1.4  
  SOLAS 14 III/1.5

• Verify discrepancies on servicing reports are corrected  
  MODU 09/10.18.1

☐ 38. Review records of emergency training and drills

• Verify crew and industrial  
  MODU 09/14.13.1
personnel participated in abandonment drill and fire drills

- Verify drill includes lowering of at least one lifeboat MODU 09/14.13.4.2
- Verify drill includes operating davits used for launching liferafts (if applicable) MODU 09/14.13.5(a)
- Verify different lifeboat(s) are used for each drill MODU 09/14.13.3
- Verify lifeboats and rescue boats are launched and operated MODU 09/14.13.5 SOLAS 14 III/19.3.3 & .6.4
- Examine training records for davit-launched liferaft (if applicable) MODU 09/14.15 Resolution A.1079(28)
- Verify crew participated in enclosed space drills MODU 09/14.14.1

☐ 39. Examine liferaft maintenance records and service logs/reports

- Examine log for record of inspections and maintenance MODU 09/10.18.2 SOLAS 14 III/36
- Examine annual certificate MODU 09/10.18.9 MODU 09/14.16.2.6
- Verify periodic examination of launching appliances and dynamic testing of winch(s) (if applicable) MODU 09/14.16.2.6 MODU 09/10.18.12.1
- Verify maintenance of falls (if applicable) MODU 09/14.16.2.6 MODU 09/10.18.5
- Verify examination and operational test of release hook(s) (if applicable) MODU 09/14.16.2.6 MODU 09/10.18.12.3
- Verify discrepancies on servicing reports are corrected MODU 09/9.19.1 MODU 09/10.18.1

☐ 40. Examine lifeboat maintenance records and service logs/reports

- Examine record of inspection and maintenance MODU 09/10.18.2 SOLAS 14 III/36
- Verify weekly inspection and test MODU 09/10.18.7 MODU 09/14.16.2.6
- Verify monthly inspection MODU 09/10.18.8 MODU 09/14.16.2.6
- Verify annual inspection and tests of launching appliance(s) and on-load release gear(s) MODU 09/10.18.12.1.3 & .2.3 MODU 09/14.16.2.6
- Verify periodic overhaul of release gear and tests of launching MODU 09/10.18.5 MODU 09/10.12.1 & .2
appliance(s), fall(s) and winch(es)

- Verify release hook meets IMO revised regulations MODU 09/10.1.4
  SOLAS 14 III/1.5
- Verify discrepancies on servicing reports are corrected MODU 09/10.18.1

☐ 41. Examine fire-fighting equipment maintenance and service logs/reports

- Examine record of inspection and maintenance MODU 09/14.16.2.5
  MODU 09/9.19.4.1
- Verify maintenance plan is onboard and applicable MODU 09/9.19.4.2
- Verify maintenance plan includes systems and appliances MODU 09/9.19.4.3
- Verify inspection and servicing IAW applicable standards or manufacturer's instructions MODU 09/9.19.4.1
  IMO MSC.1/Circ. 1432
- Verify discrepancies on servicing reports are corrected MODU 09/9.19.1
  MODU 09/14.16.2.5

☐ 42. Examine fire detection system maintenance and service logs/reports

- Examine record of inspection and maintenance MODU 09/9.19.4.1 & 16.2.5
  MODU 09/9.19.4.2
- Verify maintenance plan is onboard and applicable MODU 09/9.19.4.2
- Verify maintenance plan includes systems MODU 09/9.19.4
- Verify annual inspection and servicing IAW with manufacturer's instructions MODU 09/9.19.4.1
  IMO MSC.1/Circ.1432
- Verify discrepancies on servicing reports are corrected MODU 09/9.19.1
  MODU 09/14.16.2.5

☐ 43. Examine gas detection maintenance and service logs/reports

- Examine record of inspection and maintenance MODU 09/9.19.4.1
  MODU 09/14.16.2.5
- Verify maintenance plan is onboard and applicable MODU 09/9.19.4.2
- Verify maintenance plan includes systems MODU 09/9.19.4.3 thru .13
- Witness a satisfactory calibration of system(s) MODU 09/9.19.1.1
  Operations Manual
- Verify discrepancies on servicing reports are corrected MODU 09/9.19.1
  MODU 09/14.16.2.5
44. Examine crane maintenance and service logs/reports
   • Verify installation is approved MODU 09/12.1.1
   • Verify initial load test MODU 09/12.1.5
   • Verify required inspection(s) MODU 09/12.1.6
   • Verify if de-rated and load rating chart has been revised (when applicable) MODU 09/12.1.4
   • Verify maintenance manual(s) is available MODU 09/12.1.10
   • Verify crane operators are designated in writing and qualified 46 CFR 109.527(a)
   • Verify discrepancies on servicing reports are corrected MODU 09/12.1.6

45. Examine Unfired Pressure Vessels (UPVs) and relief valves maintenance and service logs/reports
   • Verify required UPV tests conducted 46 CFR 61.10-1 & -5 MSM II/G.3.G.4
   • Verify UPV tests (when applicable) 46 CFR 61.10-5 MSM II/G.3.G.4
   • Verify UPV five year internal inspection (when applicable) 46 CFR 61.10-5(b) MODU 09/4.3.1 & .2
   • Verify pressure relief valve (PRV) testing 46 CFR 61.10-5(i) MSM II/G.3.G.4

46. Examine Marine Operating Manual (MOM)
   • Verify approval MODU 09/14.1.1 MSM II/G.3.F
   • Verify hazardous locations are identified MODU 09/14.1.2.15
   • Verify manual addresses normal and emergency activities MODU 09/14.1.3 & .4
   • Verify contents are in English and other language(s) understood by personnel on board MODU 09/14.1.6 MSM II/G.3.F
   • Verify stability calculations contained in manual are approved (stamp/letter) MODU 09/14.1.2.9 thru .12 MSM II/G.3.E
   • Verify changes affecting lightship data are maintained in lightship data alterations log MODU 09/3.1 MODU 09/14.1.2.9 & 1.3.2
   • Examine alternative stability criteria accepted by Flag State (when MODU 09/3.3.3 MSM II/G.3.E
• Verify Dynamic Positioning operational requirements MODU 09/14.1.3.13

☐ 47. Examine Emergency Evacuation Plan (EEP)

• Determine applicability 33 CFR 146.201 & .210
• Verify approval letter is on board 33 CFR 146.210(a) & .140(b)
• Verify content 33 CFR 146.140(d)
MSM II/G.3.K
• Verify revision pages for changes 33 CFR 146.140(d)(3)

• Verify EEP is applicable to unit's current location and reflects on site conditions 33 CFR 146.140(a) & (d)(11)

☐ 48. Examine construction portfolio (booklet)

• Verify presence of copy MODU 09/2.13

☐ 49. Examine Oil Record Book Part I (ORB)*

• Verify presence MARPOL I/17.1
MARPOL I/17.6-.7
• Verify validity and proper entries MARPOL I/17.2-.5
IMO MEPC.1/Circ.736/Rev.2
• Verify presence of completed ORBs MARPOL I/17.6

☐ 50. Examine Oil Record Book (ORB) Part II (when applicable)

• Determine applicability MARPOL I/36
• Verify operation entries MARPOL I/36.2
• Verify each completed operation and page is signed MARPOL I/36.5
• Verify entries for any failures of oil discharge monitoring system MARPOL I/36.6

☐ 51. Examine Shipboard Oil Pollution Emergency Plan (SOPEP)*

• Verify presence MARPOL I/37.1
• Verify validity MARPOL I/37.2
MARPOL I/37.3

☐ 52. Examine Non-Tank Vessel Response Plan (NTVRP)*

• Verify presence 33 USC 1321(a)(26)
53. Verify transfer personnel, procedures, equipment and records*

- Verify designation of Person in Charge (PIC)
  
  33 CFR 155.700
  33 CFR 155.710(e)(4)

- Verify Declaration of Inspection (DOI)
  
  33 CFR 156.150

- Verify Declarations of Inspection (DOI) retained onboard
  
  33 CFR 156.150(f)

- Verify bunker line annual hydrostatic test
  
  33 CFR 156.170(f)(3)

- Verify presence of transfer procedures
  
  33 CFR 155.720

54. Examine Garbage Management Plan*

- Verify presence
  
  MARPOL V/9.2

- Verify validity
  
  MARPOL V/9.2

- Verify contents
  
  MARPOL V/9.2
  IMO Res MEPC.219(63)

55. Examine Garbage Record Book*

- Verify presence
  
  MARPOL V/9.3

- Verify validity
  
  MARPOL V/9.5

- Verify contents
  
  MARPOL V/9.3

Bridge & Navigation

56. Examine propulsion and operational mode indicators

- Verify propeller indicator(s)
  
  MODU 09/7.4.2.8

- Verify control station indicator(s)
  
  MODU 09/7.4.2.5

57. Verify operation of communication equipment

- Verify helicopter communication
  
  MODU 09/11.6

- Verify radio equipment compliance with SOLAS (when engaged in drilling operations)
  
  MODU 09/11.5
  SOLAS 14 IV/7 thru 11
- Verify communications equipment listed in the EEP 33 CFR 146.210(a) & .140

☐ 58. Examine sound reception system on totally enclosed bridge
- Determine applicability MODU 09/11.10.1
  SOLAS 09 V/19.2.1.8
- Witness operation SOLAS 14 V/19.2.1.8

☐ 59. Witness operational test of steering gear
- Witness operational test of steering MODU 09/1.6.2.2
  gear controls MODU 09/7.5.3 & .10
- Verify rudder angle indicator MODU 09/7.5.15
  accuracy
- Verify motor overload and phase MODU 09/7.6.3
  failure audible and visual alarms

☐ 60. Examine internal communications
- Verify means of communication MODU 09/11.7
  with control room(s) MODU 09/7.7
- Verify means of communication MODU 09/7.5.14
  with steering gear compartment,
  self-propelled units only
- Verify internal means of MODU 09/5.7.5
  communication with necessary
  spaces

☐ 61. Examine anchor(s) and chain
- Verify anchoring arrangements MODU 09/4.12
  ILO -147 3(g)
- Verify condition of visible anchor MODU 09/4.12
  chain ILO -147 3(g)

☐ 62. Examine hull for required markings
- Verify Load Line is permanently MODU 09/3.7.1
  marked ICLL 5-9
- Verify presence of deck line ICLL 4
- Verify official or IMO number SOLAS 14 XI-1/3
- Verify draught (draft) marks SOLAS 14 II-1/5.6

☐ 63. Examine hull, anchors and anchor chain for compliance with the Non-Indigenous Aquatic Nuisance Species Act
- Verify hull/anchor is free of MODU 09/2.11
  organisms and sediment AFS Convention
- Evaluate condition of hull anti-fouling coating

☐ 64. Examine charts and publications (when applicable)*

- Verify presence of current, applicable and corrected charts and/or Electronic Chart Display & Information System (ECDIS) MODU 09/11.10.1
  SOLAS 14 V/19.2.1.4, 27

- Verify presence of current and applicable Tide Tables
  SOLAS 14 V/27

- Verify presence of current and applicable Coast Guard Light List
  33 CFR 164.33

- Verify presence of COLREGs
  COLREG A/1

- Verify presence of current and applicable U.S. Coast Pilot
  SOLAS 14 V/27

- Verify presence of International Code of Signals
  SOLAS 14 V/21.1

- Verify presence and contents of maneuvering fact sheet
  SOLAS 14 II-1/28.3
  IMO Res A.601(15)

  SOLAS 14 V/21.2

☐ 65. Examine echo-sounding device*

- Verify presence of echo-sounding device or other electronic means
  MODU 09/11.10.1
  SOLAS 14 V/19.2.3.1

- Verify continuous recording of depth readings
  33 CFR 164.35(i)

☐ 66. Examine electronic position fixing device*

- Verify presence
  MODU 09/11.10.1
  SOLAS 14 V/19.2.1.6

- Verify operation
  SOLAS 14 V/19.2.1.6

☐ 67. Examine radar(s) and Automatic Radar Plotting Aid (ARPA)*

- Verify presence and type
  MODU 09/11.10.1
  SOLAS 14 V/19.2.3.2, 19.2.7.1

- Witness operational test
  SOLAS 14 V/19.2.3.2
  SOLAS 14 V/19.2.7.1

- Verify independent operation
  33 CFR 164.37(a)

- Witness operational test of ARPA
  SOLAS 14 V/19.2.8.1
68. Examine compasses*

- Verify presence of illuminated magnetic compass MODU 09/11.10.1
  SOLAS 14 V/19.2.1.1
- Verify presence of gyrocompass and illuminated repeater(s) SOLAS 14 V/19.2.5.1 & .2
- Verify presence of spare magnetic compass SOLAS 14 V/19.2.5.3
- Verify presence of deviation table 33 CFR 164.35(c)

69. Examine Voyage Data Recorder (VDR)*

- Verify presence of VDR or simplified VDR (S-VDR) MODU 09/11.10.1; SOLAS 14 V/20
  IMO Res A.861(20)
- Examine Certificate of Compliance SOLAS 14 V/18.8

70. Examine Automatic Identification System (AIS)*

- Verify presence MODU 09/11.10.1
  SOLAS 14 V/19.2.4
- Witness operation SOLAS 14 V/19.2.4.7
  IMO Res A.917(22)

71. Examine radiotelephone (VHF)*

- Verify installation MODU 09/11.3
  SOLAS 14 IV/7.1
- Verify digital selective calling (DSC) capability SOLAS 14 IV/7.2
- Verify adequate independent illumination SOLAS 14 IV/6.2.4
- Verify radio is clearly marked with call sign, ship station identity and other codes as applicable SOLAS 14 IV/6.2.5
- Verify operation of lifeboat radios MODU 09/10.14.1

72. Examine Global Maritime Distress and Safety System (GMDSS) equipment*

- Verify appropriate equipment for assigned sea area(s) MODU 09/11.3
  SOLAS 14 IV/8-11
- Examine radio records SOLAS 14 IV/17
- Verify emergency source of power SOLAS 14 IV/13
- Verify stowage of Search and Rescue Transponder(s) (SART) SOLAS 14 IV/7.1.3
  SOLAS 14 III/6.2.2
• Verify operation of NAVTEX  
  SOLAS 14 IV/7.1.4
• Verify operation of INMARSAT ship
  earth station  
  SOLAS 14 IV/7.1.5
  IMO Res A.701(17)
• Verify installation of 406MHz
  EPIRB  
  SOLAS 14 IV/7.1.6

☐ 73. Examine Long-Range Identification & Tracking (LRIT) equipment*

  • Verify presence  
    MODU 09/11.10.1
    SOLAS 14 V/19-1 .4.1
  • Verify operation  
    SOLAS 14 V/19-1 .5
    IMO Res MSC.263(84) & IMO
    MSC.1/Circ. 1307

☐ 74. Examine daylight signaling lamp*

  • Verify operation  
    MODU 09/11.10.1
    SOLAS 14 V/19.2.2.2
  • Verify independent source of power  
    SOLAS 14 V/19.2.2.2

General Health & Safety

☐ 75. Examine accommodations

  • Verify berth arrangement and size  
    ILO-147 pgs. 32 thru 35
  • Verify means of escape  
    MODU 09/9.4
  • Verify ventilation  
    ILO -147 pgs. 32 thru 35
  • Verify segregation from adjoining
    spaces  
    ILO -147 pgs. 32 thru 35
  • Verify wash, toilet, shower and
    laundry facilities  
    ILO -147 pgs. 36 thru 37
  • Verify housekeeping practices  
    33 CFR 146.205(c)
    46 CFR 109.203(a)

☐ 76. Examine galley

  • Verify sanitary conditions  
    33 CFR 146.205(c)
    46 CFR 109.203(a)
  • Verify condition of vents and ducts  
    MODU 09/9.3.15 thru .21
  • Witness function of galley serving
    window closures and doors  
    MODU 09/9.2.9 & .10
  • Verify galley/adjacent spaces meet
    structural fire protection
    requirements  
    MODU 09/Tables 9-1 & 9-2
77. Examine personal protective equipment and procedures
   - Verify eye and face protection is available 33 CFR 142.27
   - Verify head protection 33 CFR 142.30
   - Verify foot protection 33 CFR 142.33
   - Verify protective clothing 33 CFR 142.36
   - Verify respiratory protection equipment available 33 CFR 142.39
   - Verify safety belt or harness is available 33 CFR 142.42
   - Verify personnel working in locations over water are wearing personal floatation device 33 CFR 142.45
   - Verify eyewash equipment is available 33 CFR 142.48
   - Verify condition of work space 33 CFR 142.84
   - Verify personnel protection for openings in decks 33 CFR 142.87
   - Verify lock out/tag out is being utilized 33 CFR 142.90

78. Examine hospital space
   - Verify sanitary conditions 33 CFR 146.205(c) 46 CFR 109.203(a)
   - Verify adequate number of berths ILO -147 pgs. 38 thru 39
   - Verify hot and cold water ILO -147 pgs. 38 thru 39
   - Ensure excess materials not stored ILO -147 pgs. 38 thru 39
   - Verify water closet and bathroom ILO -147 pgs. 38 thru 39
   - Verify alternative arrangements, if utilized ILO -147 pgs. 38 thru 39

79. Examine arrangements in machinery and working spaces
   - Verify operation of ventilation closures MODU 09/9.15.1
   - Verify operation of remote shutdowns MODU 09/9.15.2
   - Verify fuel tank(s) shutoff valve operation MODU 09/9.15.3
   - Verify communications MODU 09/7.7
   - Verify clean and sanitary condition 33 CFR 146.205(c) 46 CFR 109.203(b)
80. Examine storage of gas cylinders
   • Verify permanent piping for oxyacetylene installation (when applicable) MODU 09/9.17.1.1
   • Examine gas cylinders carried in enclosed spaces (when applicable) MODU 09/9.17.1.2 MODU 09/9.17.1.3
   • Verify storage of cylinders MODU 09/9.17.1.2 MODU 09/9.17.1.6
   • Verify process for removal of gas cylinders MODU 09/9.17.1.4
   • Verify labeling/warning signs MODU 09/9.17.1.5

81. Examine hydrogen sulphide (sulfide) (H₂S) detection and alarm system
   • Verify areas monitored MODU 09/9.12.1
   • Verify operation of audible and visual indicators MODU 09/9.12.1
   • Verify automatic activation of helideck status light if not acknowledged MODU 09/9.12.1
   • Verify sufficient portable gas detectors MODU 09/9.12.2

82. Examine means of escape
   • Verify means of escape and confirm accessibility MODU 09/9.4.1.3
   • Verify emergency escape lighting arrangements MODU 09/5.4.6.1
   • Verify escape route is marked and illuminated MODU 09/9.4.1.4
   • Verify arrangement of machinery space escape ladders MODU 09/9.4.2
   • Verify Emergency Escape Breathing Devices (EEBDs) in escape routes MODU 09/9.6
   • Verify EEBDs are in serviceable condition MODU 09/9.6 FSS Code 3.2.2

83. Avoid inadvertent entry into a confined space
   • Determine confined space(s) 29 CFR 1915, Part B MSM I/10 & App. A
   • Evaluate potential hazards MSM I/10 App. A, C, D, F & G
• Mitigate potential hazards
  29 CFR 1915, Part B
  MSM II/G.1.J

84. Examine refrigerator and dry food stores*

- Verify adequate food for size of crew & intended voyage
  ILO-147 p30/2
  COMDTINST 16711.12A 7(1)(f)
- Verify free of insects and/or rodents
  ILO-147 p39/1(b)
  COMDTINST 16711.12A 7(1)(f)
- Verify operation of emergency escape alarm/device (refrigerators)
  ILO-147 p31/1(c)

85. Examine sanitation areas*

- Verify quantity of showers and toilets
  ILO-147 p36/18-20
  COMDTINST 16711.12A 7(1)(d)
- Verify operation of toilets
  ILO-147 p37/21(f)
  COMDTINST 16711.12A 7(1)(d)
- Verify hot and cold running water
  ILO-147 p37/21(c)
  COMDTINST 16711.12A 7(1)(d)
- Verify lighting, heating and ventilation
  ILO-147 p37/21(b)
- Assess for unsanitary or hazardous conditions
  ILO-147 p44/3(a)
  COMDTINST 16711.12A 7(1)(d)

Lifesaving Equipment

86. Examine general emergency systems

- Verify alarm activation points
  MODU 09/5.7.2
- Verify operational test of audible and visual general alarm signals
  MODU 09/5.7.2
  IMO Res A.1021(26)
- Verify connection to emergency power source
  MODU 09/5.4.6.4.1
- Verify public address system is audible
  MODU 09/5.7.3
- Verify general alarm system tests
  MODU 09/10.18.7.4
  MODU 09/14.16.2.6

87. Examine rescue boat

- Determine applicability(b)
  33 CFR 140.101
  MODU 09/10.8-10.10
- Verify embarkation and launching arrangement
  MODU 09/10.10
- Verify stowage
  MODU 09/10.9
- Verify operating instructions are posted in the vicinity MODU 09/10.17
- Verify boat markings MODU 09/10.8 LSA 5.1.1.1 & 4.4.9
- Verify type approval data plate MODU 09/10.8 LSA 1.2.2.9
- Witness operation of engine MODU 09/10.18.7.2
- Verify required equipment and proper storage MODU 09/10.8 LSA 5.1.2
- Verify dedicated rescue boat is provided MODU 09/10.8 MSC.435(98)

88. Examine muster and embarkation stations
- Verify muster and embarkation stations arrangements MODU 09/10.4.1, 2, 5 & 6
- Verify arrangement to allow for stretcher accessibility into survival craft before launching MODU 09/10.4.5
- Verify davit-launched liferaft embarkation stations arrangements (if installed) MODU 09/10.6.2 & 10.6.6
- Verify emergency lighting configuration and operation MODU 09/5.4.6.1.1 MODU 09/10.4.3 & .7
- Witness emergency lighting testing MODU 09/10.18.8

89. Examine fixed metal ladders
- Verify locations and accessibility to waterline MODU 09/10.4.7
- Verify ladders and sea areas are illuminated by emergency lighting MODU 09/10.4.7
- Verify alternative means of escape to waterline (if fixed ladders are not installed) MODU 09/10.4.8

90. Examine inflatable liferafts and davit-launched liferaft arrangements
- Verify type approval MODU 09/10.1.2
- Verify liferaft capacity requirements MODU 09/10.3.2, .3, .5 & .6
- Verify stowage MODU 09/10.6 MODU 09/10.3.3 & 10.4.5
- Evaluate launching arrangements MODU 09/10.6.2, .6 & .7
- Verify launching illustrations and MODU 09/10.17
instructions posted
• Verify container markings MODU 09/10.3
  LSA 4.2.6.3
• Verify identification/maintenance cards are accurate MODU 09/10.1.4 & 10.3
  SOLAS III/31.1.1.2

☐ 91. Examine lifeboats

• Verify type approval MODU 09/10.1.2, 3.1
  MODU 09/10.3.4
• Verify stowage MODU 09/10.6
• Determine rated capacity from data plate MODU 09/10.1.2
  LSA Code 4.4.1.2 & 4.4.2.2
• Verify required exterior markings MODU 09/10.3.1 & .4
  LSA 1.2.2.7 & 4.4.9
• Examine release gear MODU 09/10.7.1, .3 & 10.18.12.2
  LSA Code 4.4.7.6.1 thru .15 & .17
• Verify required equipment is present MODU 09/10.6.1.4
  LSA Code 4.4.8
• Witness operation of engine MODU 09/10.18.1 & 10.18.7.2
• Verify sprinkler system components and operation MODU 09/10.3.1 & .4
  LSA Code 10/4.9
• Verify self-contained air system components and operation MODU 09/10.3.1 & 10.3.4
  LSA Code 10/4.8
• Verify instructions inside for release gear MODU 09/10.17
  LSA 4.4.7.6.3, .5 & .6
• Verify fire protection components and operations MODU 09/10.1.5
  MODU 09/10.18.1
• If lifeboat is dual-service designated as a rescue boat, verify additional required equipment⁽ᵇ⁾ MODU 09/10.8
  LSA 5.1.2

☐ 92. Examine boat davits

• Examine condition of davit(s) and associated components MODU 09/10.18.1
• Verify survival craft launching arrangement MODU 09/10.7.1, 7.10 thru .12
  LSA Code 6.1.1.1 thru 6.1.2.13
• Verify davit operator has unobstructed view during launching and recovery operations MODU 09/10.7.2
  LSA Code 6.1.22
• Verify falls are of adequate length for survival craft to reach water MODU 09/10.7.5
- Verify approval markings and labeling are present MODU 09/10.7.1
- Verify conditions of falls, lay/spooling onto winch drum and that boat is hanging evenly in davit MODU 09/10.7.1
- Witness operational test of limit switches LSA Code 6.1.2.7
- Verify retrieval speed is satisfactory for lifeboats designated as rescue boat MODU 09/10.7.1
- Verify operating instructions posted MODU 09/10.17

93. Examine life jackets*
- Verify quantity MODU 09/10.11.1
- Verify approvals MODU 09/10.11.1
- Verify light MODU 09/10.11.2
- Verify whistle LSA Code 2.2.1.14
- Verify retro-reflective tape LSA Code 1.2.7
- Verify stowage MODU 09/10.11.1

94. Examine immersion suits and stowage (when applicable)*
- Verify quantity MODU 09/10.12
- Verify approvals MODU 09/10.12.1 or .2
- Verify stowage MODU 09/10.12.1.1 & .2

95. Examine line throwing appliance*
- Verify presence MODU 09/10.16
- Examine instructions or diagrams illustrating use LSA Code 7.1.1.4
- Verify age of pyrotechnics MODU 09/10.18.1 & .6
- Verify stowage LSA Code 7.1.2

96. Examine pyrotechnics*
- Verify number MODU 09/10.15
- Verify stowage MODU 09/10.15
- Verify condition/serviceability MODU 09/10.18.1 & .6
97. Examine quick-release life buoys*

- Verify number and location
  MODU 09/10.13
  LSA Code 2.1.1.7
- Verify size
  MODU 09/10.13.2
  LSA Code 2.1.2
- Verify presence of self-igniting lights
  MODU 09/10.13.2
  LSA Code 2.1.3
- Verify condition/serviceability of self-activating smoke signals
  MODU 09/10.13.2
  LSA Code 2.1.3

98. Examine life buoys*

- Verify type approval
  MODU 09/10.13.1
  LSA Code 1.2.2.9
- Verify quantity
  MODU 09/10.13.1
- Verify stowage
  MODU 09/10.13.1
- Verify markings
  MODU 09/10.13.4
- Examine attachments and fittings
  MODU 09/10.13.2
  MODU 09/10.13.3
- Verify size/weight
  MODU 09/10.13.1
  LSA Code 2.1.1

Firefighting Systems

99. Examine areas for compliance with Structural Fire Protection (SFP) requirements

- Determine structural fire protection needed
  MODU 09/Table 9.1 & .2
- Verify SFP boundaries with fire control plan
  MODU 09/9.18
  SOLAS 14 II-2/15.2.4
- Verify SFP is as built or per approved modifications
  MODU 09/9.2
  SOLAS 14 II-2/5.3 & 6
- Evaluate fire door(s) operation
  MODU 09/9.2.9 & .10
- Verify multi-cable transits (MCT's) are compatible with fire boundary
  MODU 09/9.2.3 & .4
  MODU 09/9.3.2
- Verify ventilation closures are compatible with fire boundary
  MODU 09/9.2.3
  MODU 09/9.3.13 thru .20
- Verify pipes/standoffs are compatible with fire boundary
  MODU 09/9.2.3 & .4
  FTP Ann 1 Pt 3 App 2/AllI.1
- Verify no unapproved space modification(s) that would affect space categorization
  MODU 09/9.2.5
  MODU 09/Table 9.1 & .2

100. Examine fixed fire detection and alarm system
- Verify operation MODU 09/9.5 & .10
  FSS Code 9.2.1, .3, .4 & 9.2.5.1
- Verify power sources MODU 09/9.5
  FSS Code 9.2.2

101. Examine flammable gas and alarm system(s)
- Verify areas monitored MODU 09/9.11.1
- Verify operation of audible and visual indicators MODU 09/9.11.1
- Verify sufficient portable gas detectors MODU 09/9.11.2

102. Examine apparatus for recharging air cylinders
- Verify compressor is located in suitable location MODU 09/9.14.2 & .6
- Verify compressor’s emergency power source/independent prime mover MODU 09/9.14.1
- Verify air intake location and filtration MODU 09/9.14.3
- Verify recharging capacity MODU 09/9.14.5

103. Examine fire main system(s)
- Verify number of pumps MODU 09/9.7.1
- Verify location(s) MODU 09/9.7.3 & .6
- Verify remote start operation MODU 09/9.7.6
- Verify pressure MODU 09/9.7.5
- Verify relief valve installation MODU 09/9.7.9
- Verify fire station arrangements MODU 09/9.7.19 thru .23
- Verify no connections other than ones necessary for fire fighting MODU 09/9.7.15
- Verify connection arrangements for pumps allowed to be used for other purposes MODU 09/9.7.7
- Verify presence of international shore connection, as applicable MODU 09/9.7.23

104. Examine deluge system
- Confirm voluntary installation locations MODU 09/9.8.1(c)
- Confirm alternative arrangement MODU 09/9.8.1(c)
- Verify drill floor has adequate coverage for area MODU 09/9.8.1(c)
- Verify condition of nozzles and piping MODU 09/9.8.3(c) & 9.19.2
- Verify access to system activation points MODU 09/9.8.2(c)
- Verify protection of components MODU 09/9.8.1(c)
- Verify on Fire Control Plan MODU 09/9.9.18(c)

☐ 105. Examine fire-fighter’s outfits*

- Verify storage location consistent with Fire Control Plan MODU 09/9.13.3 MODU 09/9.18
- Verify quantity MODU 09/9.13
- Verify condition of personal equipment MODU 09/9.19.3.2 FSS Code 3.2.1.1
- Verify condition of breathing apparatus MODU 09/9.19.3.2 FSS Code 3.2.1.2
- Verify condition of lifeline MODU 09/9.19.3.2 FSS Code 3.2.1.3
- Verify presence of spare charges MODU 09/9.13.2

☐ 106. Examine portable fire extinguishers*

- Verify locations consistent with Fire Control Plan MODU 09/9.9; 9.18
- Verify stowage MODU 09/9.9.1 & .2 SOLAS 14 II-2/10.3.2
- Verify condition of extinguishers MODU 09/9.5; 9.19.3.2 FSS Code 4.2
- Verify presence of spare charges MODU 09/9.9.1 SOLAS 14 II-2/10.3.3

☐ 107. Examine Fire Control Plan*

- Verify currency of plan(s) or booklets MODU 09/9.18 SOLAS 14 II-2/15.2.4.1
- Verify plan or booklet is in required languages SOLAS 14 II-2/15.2.4.1
- Verify content of plan(s) or booklet SOLAS 14 II-2/15.2.4.1
- Verify stowage of duplicate set of plan(s) SOLAS 14 II-2/15.2.4.2
108. Examine fixed fire detection and alarm systems*

- Verify operation  
  MODU 09/9.19.1 thru .3  
  MODU 09/9.5
- Verify power sources  
  FSS Code 9.2.2  
  MODU 09/5.4.6.4.2
- Verify operation of alarms  
  FSS Code 9.2.5.1
- Verify operation of manually operated call points  
  MODU 09/9.10.2  
  MODU 09/9.19.3.1.2
- Verify periodic testing  
  MODU 09/9.19.4.3.2  
  FSS Code 9.2.5.2

109. Examine the fixed pressure water-spraying and water mist fire extinguishing systems*

- Verify the fixed system is arranged as indicated on fire control and/or general arrangement plan(s)  
  MODU 09/9.8; 9.18  
  SOLAS 14 II-2/10.4.1.3
- Verify sprinkler pump arrangement for automatic activation  
  MODU 09/9.19.3.2  
  FSS Code 8.2.3.3

110. Examine fixed high pressure CO2 system*

- Verify system is arranged as indicated in fire control and/or general arrangement plan  
  MODU 09/9.8; 9.18  
  SOLAS 14 II-2/10.4.1.1
- Verify control valves are arranged and marked  
  FSS Code 5.2.1.3.1  
  FSS Code 5.2.2.2
- Verify operating instructions at control stations  
  FSS Code 5.2.1.3.3
- Verify closures for protected space openings  
  SOLAS 14 II-2/10.4.2
- Verify storage room arrangements  
  SOLAS 14 II-2/10.4.3
- Evaluate testing and inspection procedures  
  MODU 09/9.19.4.1; .4.3.3  
  IMO MSC.1/Circ. 1318

111. Examine low pressure CO2 fixed fire fighting system*

- Verify system is arranged as indicated in fire control and/or general arrangement plan(s)  
  MODU 09/9.8; 9.18  
  SOLAS 14 II-2/10.4.1.1
- Verify control valves are arranged and marked  
  FSS Code 5.2.1.3.1  
  FSS Code 5.2.2.2
- Verify operating instructions at control stations  
  FSS Code 5.2.1.3.3
- Verify closures for protected space openings  
  SOLAS 14 II-2/10.4.2
- Verify storage room arrangements  
  SOLAS 14 II-2/10.4.3  
  FSS Code 5.2.2.4.1
- Evaluate testing and inspection procedures  
  MODU 09/9.19.4.1; .4.3.3  
  IMO MSC.1/Circ. 1318
- Verify alarms and indicators  
  FSS Code 5.2.2.4.3  
  FSS Code 5.2.2.4.11 & .12
- Verify safety relief valves  
  FSS Code 5.2.2.4.3 & .4  
  FSS Code 5.2.2.4.10

☐ 112. Examine fixed high-expansion foam fire extinguishing system*

- Verify system is arranged as indicated in the fire control and/or general arrangement plan(s)  
  MODU 09/9.8; 9.18  
  SOLAS 14 II-2/10.4.1.2
- Verify quantity and performance of foam concentrates  
  FSS Code 3.1 thru 3.3  
  IMO MSC/Circ.670

**Dynamic Positioning Systems**

☐ 113. Examine operational capabilities of Dynamic Positioning (DP) systems

  - Determine equipment class  
    MODU 09/4.13  
    IMO MSC/Circ. 645 2
  - Verify Well Specific Operating Guidelines (WSOGs)  
    IMO MSC/Circ. 1580 4.1
  - Verify records of DP incidents  
    IMO MSC/Circ. 645 5.1.1.4  
    IMO MSC/Circ. 1580 5.1.1.4
  - Verify presence of DP operating manual  
    MODU 09/14.1.3.13  
    IMO MSC/Circ. 645 4
  - Verify initial, periodic and annual survey(s)  
    IMO MSC/Circ. 645 5.1  
    IMO MSC/Circ. 1580 5.1
  - Verify tests after modifications and non-conformities  
    IMO MSC/Circ. 645 5.1.1.4  
    IMO MSC/Circ. 1580 5.1.1.4
  - Verify Class Approved Failure Modes and Effects Analysis (FMEA)  
    IMO MSC/Circ. 645 5.1  
    IMO MSC/Circ. 1580 5.1

☐ 114. Examine DP’s power management system

  - Conduct meeting on test procedures  
    IMO MSC/Circ. 645 4.4  
    IMO MSC/Circ. 1580 4.6
  - Verify power available in accordance with WSOG and CAMO modes  
    IMO MSC/Circ. 645 3.2.5  
    IMO MSC/Circ. 1580 3.2.5
  - Witness bus-tie breakers separate automatically and standby generator comes on line (when not
    MODU 09/4.13  
    IMO MSC/Circ. 645 3.2.3 & .4
115. Examine DP’s thruster system(s)

- Conduct meeting on test procedures
- Verify system meets stated classification
- Confirm thrusters are station keeping IAW WSOG
- Witness standby thruster(s) automatically come on line
- Verify thruster(s) not in operation are at zero pitch and speed
- Verify manual thruster controls

116. Examine DP’s control systems

- Witness automatic transfer of operational control to redundant control system
- Verify audible and visual alarms
- Review alarms records
- Verify arrangements to prevent failures from transferring from one system to another
- Verify operation of uninterruptive power supply
- Identify vessel position reference systems and sensors
- Witness operation of loss of position reference system and sensor alarms

Heli-Deck

117. Examine helideck

- Examine operation and arrangement of helicopter deck lights
• Examine periphery netting arrangement and condition MODU 09/13.4.2
• Verify deck markings MODU 09/13.5.5 thru .19
• Verify deck is free of obstructions MODU 09/13.3.2.2 & 13.3.3.2
• Verify condition and accessibility of main and emergency personnel access route MODU 09/13.4.3 & 9.16.3
• Verify structural fire protection requirements MODU 09/9.16.2
• Verify wind indicator MODU 09/13.5.1 thru .4
• Verify skid-resistant surface MODU 09/13.3.4
• Verify operation of H₂S warning light MODU 09/13.5.26

☐ 118. Examine helideck fire fighting systems

• Verify dry powder extinguishers MODU 09/9.16.4.1
• Verify CO₂ extinguishers MODU 09/9.16.4.2
• Verify foam is appropriate type MODU 09/9.16.4.4
• Verify CO₂ foam extinguishing system MODU 09/9.16.4.3
• Verify additional fire-fighting outfits MODU 09/9.16.4.6
• Verify additional equipment required MODU 09/9.16.4.7
• Verify condition of drainage MODU 09/9.16.5

☐ 119. Examine refueling station (if equipped)

• Inspect portable fuel storage tank(s) MODU 09/9.16.6.3 & .4
• Verify tank(s) are remote as practical MODU 09/9.16.6.1.1
• Verify tank(s) are isolated from ignition source(s) MODU 09/9.16.6.1.2
• Verify tank area(s) have containment MODU 09/9.16.6.2
• Verify emergency shutdown(s) MODU 09/9.16.6.5
• Verify unit is outfitted with grounding device MODU 09/9.16.6.9
• Verify pumping unit over pressurization device MODU 09/9.16.6.8
• Verify signs posted MODU 09/9.16.6.10
120. Examine bilge pumps installation, piping, and valves

- Examine bilge system components  MODU 09/4.9.1
  MODU 09/4.9.3
- Verify system arrangement(s)  MODU 09/4.9.1
  including flooding protection  MODU 09/4.9.8.1
- Verify valve indicators  MODU 09/4.9.6
  MODU 09/3.6.2
- Witness operation of alarms  MODU 09/8.4

121. Examine ballast pumps installation, piping and valves

- Verify pump local/remote arrangement(s)  MODU 09/4.10.11 &.12
- Verify emergency power requirements  MODU 09/4.10.6
  MODU 09/5.4.6.7
- Verify local/remote valve operation  MODU 09/4.10.13
- Verify piping material and condition  MODU 09/4.10.7
- Verify Ballast Control Station arrangements  MODU 09/4.10.10
- Verify marking(s) of components  MODU 09/4.10.8
- Verify tank level indicator(s) and draft reading operation  MODU 09/4.10.14 & .15

122. Examine oil/fuel service and transfer system(s)

- Verify condition  MODU 09/4.8.4
- Verify arrangement of system(s)  MODU 09/4.8.1 - .3
  MODU 09/4.8.6
- Verify condition of tank vent(s)  MODU 09/4.8.5
- Verify arrangement of pressurized fuel piping  MODU 09/4.8.7
  MODU 09/8.3.1
- Verify means to prevent overflow spillage  MODU 09/8.3.2
- Verify high temperature alarm  MODU 09/8.3.3
- Witness test of remote operated valve(s)  MODU 09/9.15.3
- Verify transfer procedures are posted or available  MODU 09/14.1.3.6
- Verify flange or mechanical joints are fitted with a suitable shield  MODU 09/4.1.1
- Inspect nonmetallic flexible hoses  MODU 09/4.8.4
and fittings

- Verify operation of transfer pumps and remote shutdowns  MODU 09/9.15.2

123. Examine Unfired Pressure Vessels (UPVs)

- Determine applicability  MSM II/G.3.G.4
  MOA OCS-08 Annex 1/22.J
- Verify arrangement of Pressure Relief Valve(s) (PRV)  MODU 09/4.3.4
- Verify marking(s) of PRV  MSM II/G.3.G.4
  MODU 09/2.1.3 > Class Rules
- Verify arrangement of UPV  MODU 09/4.3.2
  MSM II/G.3.G.4
- Verify marking(s) of UPV  MSM II/G.3.G.4
  ASME VIII/UG-118 thru 119
- Examine external condition of UPV  MSM II/G.3.G.4
  MODU 09/2.1.3 > Class Rules

124. Examine steering gear assembly and operation

- Examine condition of steering gear system  MODU 09/1.6.2.2
- Verify automatic start after power failure  MODU 09/7.5.5
- Verify accuracy of rudder angle indicator  MODU 09/7.5.16
- Verify non-conventional rudder arrangements (thrusters)  MODU 09/7.5.18
- Verify running indication for motors  MODU 09/7.6.1
- Verify operation of means of communications  MODU 09/7.5.14
- Witness functional system tests  MODU 09/7.5.3
  MODU 09/7.5.7

125. Examine main service and propulsion generator(s) and prime mover(s)

- Verify condition of components  MODU 09/4.1.3
  IMO MSC/Circ. 834
- Verify installation of machinery covers and guards  MODU 09/4.1.3
- Verify required gauges  MODU 09/4.1
- Verify set point and operation of over speed shut-down  MODU 09/4.3.3 & .8.9
- Verify set point and operation of low lube oil pressure shut-down  MODU 09/4.3.7 & .8.9
- Verify set point and operation of high jacket water temperature alarm
- Verify operation of reverse power relays
- Verify means to bring vessel into operation from a dead ship condition
- Verify manual override activation indicators

☐ 126. Examine emergency generator(s) and prime mover(s)
- Determine requirement
- Examine condition of components
- Verify installation of machinery covers and guards
- Verify starting system(s)
- Verify two starting resources
- Verify operation of auto-start function
- Verify required gauges
- Verify operation of remote fuel shutoff valve
- Verify set point and operation of over speed shut-down
- Verify set point and operation of lube oil pressure shut-down
- Verify set point and operation of high jacket water temperature alarm

☐ 127. Examine transfer procedures (when applicable)*
- Determine applicability
- Verify availability
- Verify contents

Electrical Systems

☐ 128. Examine switchboards
- Verify openings and accesses in
switchboard are guarded IEC 60529

- Verify non-conductive mats or gratings MODU 09/5.6.5
- Verify condition of meters, controls, and gauges MODU 09/5.7.1
- Verify markings MODU 09/5.6.14
- Verify equipment for parallel operation MODU 09/5.3.7
- Verify ground detection MODU 09/5.6.7
- Verify rear access control MODU 09/5.6.5
- Verify drip shields present MODU 09/2.1.3

Class Society Rules

☐ 129. Examine motor controllers
- Verify condition of enclosure MODU 09/5.1.1.4
- Verify markings MODU 09/5.6.14
- Verify drip-proof/watertight MODU 09/5.6.21 & 2.1.3 IEC 60529

☐ 130. Examine controls and alarms for unattended machinery spaces (when applicable)
- Verify administration approved documentation MODU 09/8.2.5
- Witness fire detection system alarms MODU 09/9.10.3.1
- Verify engineer's alarm is operational MODU 09/8.7.1.2
- Verify malfunction of any machinery or boiler operations initiates automatic shutdown MODU 09/8.9
- Verify operation of Oil Mist Detection system MODU 09/8.3.7

☐ 131. Examine hazardous location plan
- Verify presence of plan MODU 09/14.1.2.15
- Verify plan approval MODU 09/14.1
  MSM II/G.3.F
- Verify plan identifies all hazardous areas MODU 09/6.1 thru 6.3

☐ 132. Examine intrinsically safe electrical equipment in hazardous locations
- Verify components/equipment are approved MODU 09/6.6.3
  IEC 60079-14 & -25
• Verify intrinsically safe components (cables, boxes, etc.) are separated from non-intrinsically safe equipment
  MODU 09/6.6.3  
  IEC 60079-14/12.1

• Verify equipment labeling
  MODU 09/6.6.3  
  IEC 60079-14/5

• Verify equipment has approved control drawings
  MODU 09/6.6.3  
  IEC 60079-14/4.2 & 12.2.5.1

133. Examine non-intrinsically safe electrical equipment in hazardous locations

• Verify installed equipment is listed, certified or purged
  MODU 09/6.6

• Confirm equipment as marked is acceptable for location installed (Zone or Division)
  MODU 09/6.6  
  IEC 60079-14/5

• Verify equipment has appropriate surface temperature class for gases or vapors that could be encountered in that space
  MODU 09/6.6  
  IEC 60079-14/5.6

• Verify wiring method
  MODU 09/6.6  
  IEC 60079-14/9

• Verify all cable entries are approved
  MODU 09/6.6  
  IEC 60079-14/9.4

• Verify equipment is protected against water and particulate ingress
  MODU 09/6.6  
  IEC 60079-14/11.1, 14.2

• Verify arrangement for purged and pressurized equipment
  MODU 09/6.6  
  IEC 60079-14/13

• Verify no obstructions around flameproof enclosures
  MODU 09/6.6  
  IEC 60079-14/10

• Verify fans for ventilation are non-sparking type
  MODU 09/6.6  
  IEC 60079-14/6

134. Examine machinery in hazardous areas

• Identify hazardous locations
  MODU 09/6.2

• Verify machinery is approved
  MODU 09/6.7.3

• Verify fire equipment is approved
  MODU 09/6.7.4

135. Examine openings, access and ventilation conditions in hazardous areas

• Verify arrangement of hazardous area openings
  MODU 09/6.3

• Verify arrangements for ventilation
  MODU 09/6.4

• Examine condition of boundaries
  MODU 09/6.3
- Verify alarms  MODU 09/6.3.1.3, 2.3 & 3.3

☐ 136. Examine rig emergency shutdown(s)
- Verify location(s) of activation points  MODU 09/6.5.3
- Verify arrangements to prevent inadvertent activation  MODU 09/6.5.4

**Structural & Watertight Integrity**

☐ 137. Examine general condition of hull and structural members
- Examine condition of ladderways, guardrails, fire mains, piping, hatch covers & watertight/weather-tight closures  MODU 09/1.6.2.1 thru .4 MODU 09/3.7
- Evaluate hull strength and integrity  MODU 09/2.1.3 ICLL 66 Annex I/12

☐ 138. Examine internal watertight bulkheads and doors/closures
- Assess condition of components  MODU 09/3.6.5 & 3.6.3
- Assess condition of ventilator closures  MODU 09/3.6.1
- Verify quick-acting type doors local/remote alarms (when applicable)  MODU Code 3.6.5.2
- Verify local/remote operation of power operated watertight door opening and closing controls  MODU 09/3.6.5.1 & .3 SOLAS 04/25-9.2
- Verify local/remote operation of audible and visual alarm/indicators  MODU 09/3.6.5.3 SOLAS 04/25-9.2

☐ 139. Examine external watertight integrity
- Ensure all penetrations are watertight  MODU 09/3.6.1
- Verify down-flooding openings have watertight closures  MODU 09/3.6.7 MODU 09/3.7.2
- Evaluate condition of watertight door(s) and hatches  MODU 09/3.6.3 MODU 09/3.7.2

**Pollution Prevention**

☐ 140. Examine Oily Water Separator (OWS) and bilge monitor/alarm (OCM)*
- Verify type of oily water separator  MARPOL I/14
and bilge monitor/alarm (MEPC.107(49) or MEPC.60(33))

- Witness operational test of oil filtering equipment
  MARPOL I/14.6 & .7
  MSM II/D.1.G.1.p(1)

- Review records
  MSM II/D.1.G.1.p(1)
  G-MOC Policy Ltr 04-13

- Verify OCM is sealed
  MSM II/D.1.G.1.p(3)
  MEPC.107(49)

- Verify OCM is calibrated
  MSM II/D.1.G.1.p(3)
  G-MOC Policy Ltr 04-13

- Verify bilge alarm activation (MEPC.107(49))
  MSM II/D.1.G.1.p(3)
  G-PCV Policy Ltr 06-01

- Verify no dilution of processed oily water sample in line to OCM
  MSM II/D.1.G.1.p(3)
  G-PCV Policy Ltr 06-01

- Verify presence of consumables IAW manufacturer's instructions
  MSM II/D.1.G.1.p(3)

- Verify OCM activates overboard discharge valve
  MSM II/D.1.G.1.p(3)

☐ 141. Examine Marine Sanitation Device (MSD)*

- Verify type approval
  33 CFR 159.7
  MARPOL IV/9

- Verify labeling
  33 CFR 159.55
  33 CFR 159.59

- Assess condition/operability
  MSM II/D.1.G.1.p(5)

☐ 142. Examine incinerator*

- Verify approval
  MARPOL Annex VI/16.6.1
  IMO Res MEPC.76(40)

- Verify presence of manufacturer's operating manual
  MARPOL Annex VI/16.7

- Verify operating personnel training
  MARPOL Annex VI/16.8

- Verify operation of fixed local fire extinguishing system
  SOLAS 14 II-2/10.5.6.3.3

☐ 143. Examine standard discharge connection*

- Verify presence
  33 CFR 155.430
  MARPOL I/13

- Verify condition
  33 CFR 155.430

Topside Equipment

☐ 144. Examine paint lockers*
- Evaluate stowage of flammable and hazardous material 46 CFR 147.45
- Verify fire protection equipment provided for space 46 CFR 147.65 SOLAS 14 II-2/10.6.3
- Verify intrinsically safe electrical installations MODU 09/6.2.1 MODU 09/6.6

**Cargo Systems**

☐ 145. Examine portable tanks
- Determine applicability 33 CFR 146.205 46 CFR 109.557
- Verify additional firefighting equipment 46 CFR 109.557 46 CFR 98.30-37
- Verify stowage and segregation 46 CFR 109.557 46 CFR 98.30-9

☐ 146. Examine crane(s)
- Examine components MODU 09/12.1.1 & 12.1.10.7
- Verify controls are marked MODU 09/12.1.1
- Verify instruments have lighting MODU 09/12.1.1
- Verify correct load chart for configuration in use MODU 09/12.1.7
- Verify alarms MODU 09/12.1.8 & .10.3
- Verify crane book/manual MODU 09/12.1.10
- Verify boom angle indicator MODU 09/12.1.8

**Emergency Drills**

☐ 147. Evaluate fire drill
- Witness firefighting drill procedures and crew perform assigned duties MODU 09/14.13.2
- Verify crew's ability to organize into an effective team to respond to an emergency MODU 09/14.10.1 & .2
- Verify effective communication between crew on scene and master in command center MODU 09/14.13.2 IMO Res A. 1079(28) App 1/1.3.5
- Witness debrief of drill MODU 09/14.13.2 IMO Res A. 1079(28)
- Evaluate crew's knowledge for MODU 09/14.2.3
responding to helideck incidents

148. Evaluate abandonment drill

- Witness abandonment drill procedures and crew perform assigned duties MODU 09/14.13.2
- Witness crew's competency to deploy and launch different lifeboats MODU 09/14.13.4 & .15
- Verify crew is proficient at donning lifejackets MODU 09/14.13.4.1
- Witness a debrief of drill MODU 09/14.13.2
  IMO Res (A).1079(28) 1.4.6

149. Evaluate man overboard drill

- Verify man overboard drills are conducted MODU 09/14.13.1(d)
- Witness launching, operation, and maneuvering of rescue boat MODU 09/14.13.5

Follow-Up

150. Verify Compliance with International Safety Management (ISM) Code

- Determine clear grounds to initiate expanded exam SOLAS 14 IX/2.1.3
  ISM Code 6.2
- Verify crew familiarity with vessel's Safety Management System (SMS) ISM Code 6.1
- Verify company responsibilities and authority are clearly defined ISM Code 3
- Verify record keeping compliance ISM Code 11
- Verify maintenance requirements ISM Code 10
- Verify training requirements are IAW SMS ISM Code 6.3 & .4
- Review audit documentation and ensure follow-up actions completed/in-process ISM Code 1.4.6 & 9.2

151. Issue deficiencies

- Identify deficiencies MSM II/D.1.C.8
- Discuss deficiencies and corrective measures/timeframe with vessel's master or representative MSM II/D.2.C
- Document deficiencies MSM II/G.3.N.9
152. Issue control action(s)

- Determine if suspension/non-issuance of COI/COC is warranted MODU 09/1.7.3
  MSM II/G.3.L
- Determine control action MODU 09/1.7.3
  MODU 09/1.7.6
- Determine impact to drilling operations BSEE/USCG MOA
- Evaluate potential well control hazards BSEE/USCG MOA
- Consult with OCMI and BSEE District to determine appropriate point to interrupt drilling operations BSEE/USCG MOA
- Explain control action(s) to responsible parties/stakeholders MODU 09/1.7
  BSEE/USCG MOA
- Issue control action(s) MODU 09/1.7.3
  MMS Work Instruction

153. Verify deficiency corrections

- Verify corrected deficiencies MSM II/D.1.G.3.f
  CG-3585
- Remove control action (when applicable) CG-3585
  CG-5437A/B
- Clear deficiency in Misle activity MSM II/A.2.C.2.d
  MMS Work Instruction

154. Issue/endorse certificates

- Issue/endorse COI/COC MSM II/G.3.A.2.e
  CG-3585
- Obtain copy of endorsed certificates for foreign units MSM II/G.3.N.9
  CG-3585

155. Complete Maritime Information for Safety and Law Enforcement (MISLE) Activity

- Update examination results with deficiencies issued on CG 835V/Form B CG-3585
  MMS Work Instruction
• Update activity narrative and special notes (as necessary)  MMS Work Instruction
• Update details  MMS Work Instruction
• Ensure unfired pressure vessel internal exam and relief valve test dates are documented in MISLE  MSM II/G.3.G.4
• Update documents  MMS Work Instruction
• Change status to "Open-Submitted for Review"  MMS Work Instruction
Section 4: Drill Record Sheets

☐ Fire Drill:

Initial notifications
General alarms / signals
Crew response
Properly dressed / equipped
Language understood by crew

Familiarity with duties
Familiarity with equipment
Fire pumps started
Two jets of water
Fire doors and dampers

Space isolation
Smoke control
Arrange care of passengers
Communications w/ bridge

MODU 09/14.13.2

Location: ___________________________  Time on Scene: _______

Notes: ___________________________________________________________________

_________________________________________________________________________

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_________________________________________________________________________
☐ Abandonment Drill:

<table>
<thead>
<tr>
<th>General alarms / signals</th>
<th>Familiarity with duties</th>
<th>Boat release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muster lists</td>
<td>Provide equipment</td>
<td>Boat operation</td>
</tr>
<tr>
<td>Muster of crew / passengers</td>
<td>Familiarity with equipment</td>
<td>Egress procedures</td>
</tr>
<tr>
<td>Crew response</td>
<td>Lower lifeboat</td>
<td>Davit-launched liferaft drill</td>
</tr>
<tr>
<td>Language understood by crew</td>
<td>Brake operation</td>
<td>Communication w/ bridge</td>
</tr>
<tr>
<td>Lifejackets</td>
<td>Engine start</td>
<td>Lighting</td>
</tr>
</tbody>
</table>

MODU 09/14.13.2

Location: ___________________________ Time to Water: _________

Notes: __________________________________________

______________________________________________________________________________

______________________________________________________________________________

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______________________________________________________________________________
Man Overboard Drill:

- Familiarity with duties
- Boat launch
- Boat release
- Boat operation
- Crew equipment
- Boat equipment

MODU 09/14.13.1(d)

Location: ___________________________  Time to Water: ______

Notes: ______________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________

56
Section 5: Appendices

Confined Space Entry Checklist

Sources for Policy
- COMDTINST M5100.47, Chapter 6, change 11
- MSM Vol. 1, Chapter 10 & Appendix A, C, D to chap. 10
- MSM Vol. 2 Ch. 1, Section D, Chapter 6
- 29 CFR 1915, Part B

A Confined Space for the purpose of this checklist is:
A space that possess all of the following three distinct characteristics –

1. Is large enough and so configured that an employee can bodily enter & perform assigned work;
2. Has limited or restricted means for entry or exit; and
3. Is not designed for continuous employee occupancy

Hazards associated with confined space entry
- Oxygen deficient or enriched atmosphere
- Flammable atmosphere
- Toxic atmosphere
- Extreme temperature (hot or cold)
- Engulfment hazard (such as grain, coal, sand, gypsum or similar material)
- Extreme noise
- Slick / wet surfaces & tripping hazards
- Falling objects
- Potential for rapidly changing atmosphere

USCG Confined Space Entry Requirement
A certified Marine Chemist shall conduct the initial inspection & certify all confined spaces on merchant vessels “Safe for Workers” before entry by USCG personnel.

In rare circumstances, if a Marine Chemist is not available, the OCMI may designate a USCG Competent Person to certify a confined space “Safe for Workers”
Examples (not limited to) of confined spaces:

<table>
<thead>
<tr>
<th>Confined Spaces</th>
<th>Hazard&lt;sup&gt;(2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voids/Cofferdams&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Sealed Compartments&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Double Bottoms/Sides/Duct Keels&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Spaces Coated with a Preservative&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Engine Crankcases/Scavenging Spaces&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Large Heat Exchangers&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Fuel/Lube Oil/Sludge Tanks&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P- F,T; S- O</td>
</tr>
<tr>
<td>Water tanks&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Cargo/Slop Tanks&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>P– O; S- F,T</td>
</tr>
<tr>
<td>Pump Rooms (if provided)</td>
<td>P– O; S- F,T</td>
</tr>
</tbody>
</table>

<sup>(1)</sup>Port State Control Officers should not attempt to enter any of the above spaces during a standard PSC examination, other than pump rooms. There may be reason to enter one or more of these spaces during the exam if there are clear grounds to do so, but only enter these spaces after ensuring they are safe for entry. Review the safe work practices contained in MSM Vol. 1, chapter 10, Appendix A for entry into confined spaces other than pump rooms.

<sup>(2)</sup>Hazards – P (Primary); S (Secondary); O (Oxygen Deprivation); F (Flammability); T (Toxicity)
Examples (not limited to) of non-confined spaces that may pose a hazard:

<table>
<thead>
<tr>
<th>Non-confined spaces that may pose a risk (All vessel types)</th>
<th>Possible Hazard(s)</th>
<th>Safe Work Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ Storage Room</td>
<td>O₂ deprivation due to leaking CO₂</td>
<td>Ensure proper ventilation, wear O₂ meter</td>
</tr>
<tr>
<td>Machinery Spaces</td>
<td>Noise, Flammability, Toxicity; MSDs – H₂S</td>
<td>Hearing protection</td>
</tr>
<tr>
<td>Flammable Storage Lockers/Paint Rooms</td>
<td>Flammability, Toxicity</td>
<td>Ensure proper ventilation</td>
</tr>
<tr>
<td>Battery Room</td>
<td>Toxicity -</td>
<td>Ensure proper ventilation</td>
</tr>
<tr>
<td>Bos’n Shop</td>
<td>O₂ deprivation</td>
<td>Ensure proper ventilation</td>
</tr>
<tr>
<td>Workshops</td>
<td>Toxicity from welding fumes, Flammability, Noise</td>
<td>Ensure proper ventilation</td>
</tr>
<tr>
<td>Compressor Rooms(^{(1)})</td>
<td>O₂ deprivation, Flammability</td>
<td>See Note 1</td>
</tr>
<tr>
<td>Provisions/Non-Flammable Storage</td>
<td>O₂ deprivation</td>
<td>Ensure proper ventilation</td>
</tr>
<tr>
<td>Open Cargo Deck</td>
<td>Flammability</td>
<td>Ensure use of intrinsically safe radios, flashlight, phone, etc.</td>
</tr>
</tbody>
</table>

1) Space is monitored every thirty minutes by gas detection system. Enter these spaces after ensuring these are safe for entry and after ensuring the gas detection system is calibrated and functioning properly and gas levels detected are safe for entry. A marine chemist certificate is not required prior to entry.
IMMEDIATELY LEAVE ANY CONFINED SPACE IF:

- A personal monitor alarms;
- You feel dizzy or lightheaded;
- The forced air ventilation stops or is apparently ineffective; or
- If you sense any unexpected chemical through smell or dermal sensation that concerns you. This is a judgment call; however, you should depart any time there is a burning sensation in your lungs or you experience a shortness of breath. Any of these sensations may indicate a life threatening situation and you must react promptly to avoid injury.

Note: Climbing (other than on ladders) shall be limited to 5ft.

Steps to Take After Entry for All Confined Spaces

☐ Immediately contact your chain of command if you left a confined space for any of the reasons noted above. Do not reenter any confined space until notification of appropriate senior personnel and direction from your supervisor is obtained.

☐ Report any inconsistencies in the marine chemist certificate or competent person log to your supervisor and follow-up with a letter to Commandant CG-1134 via your District (industrial hygienist).

☐ In the event of overexposure, personnel should be evacuated to appropriate medical facilities by the most expeditious means. Medical personnel should be provided with all known information on the suspected exposure, including concentration and duration of exposure. This should include the most probable route of exposure. Also provide the medical authority with the phone number to American Toxic Substance and Disease Registry (ATSDR).
Primary Lifesaving Applicability

Option “C”

Keel laid on/after 31 Dec 1981, prior to 01 May 1991 79 MODU 10.1

100% Fire-Protected Lifeboats

+ 100% Liferafts

---

Keel laid on/after 01 May 1991, prior to 01 Jan 2012 89 MODU 10.2

100% Fire-Protected Lifeboats (on each side or widely separated areas)

+ 100% Float-Free Liferafts (200% for surface units if not readily transferred side-to-side)

---

SEU Alternative, w/ Administration acceptance

100% Fire-Protected Lifeboats (widely separated)

+ 100% Davit-Launched Liferafts (counted as req’d rafts if arranged for float-free launch)

---

Keel laid on/after 01 Jan 2012 09 MODU 10.3

100% Fire-Protected Lifeboats (on each side or widely separated areas)

+ 100% Float-Free Liferafts (200% for surface units if not readily transferred side-to-side)

---

SEU Alternative, w/ Administration acceptance

100% Fire-Protected Lifeboats (widely separated)

+ 100% Davit-Launched Liferafts (counted as req’d rafts if arranged for float-free launch)
HazLoc Marking Schemes

Division & Zone (NEC):

Typical North American Marking

<table>
<thead>
<tr>
<th>Division Scheme</th>
<th>Zone Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>Class I</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>Hazard Class</td>
</tr>
<tr>
<td>Division 1</td>
<td>Zone 0</td>
</tr>
<tr>
<td>Area Classification</td>
<td>Area Classification</td>
</tr>
<tr>
<td>Groups A&amp;B</td>
<td>AEx</td>
</tr>
<tr>
<td>Gas Group</td>
<td>ia</td>
</tr>
<tr>
<td>T4</td>
<td>IIC</td>
</tr>
<tr>
<td>Temperature Class</td>
<td>T4</td>
</tr>
<tr>
<td></td>
<td>Ga</td>
</tr>
<tr>
<td></td>
<td>Temperature Class</td>
</tr>
<tr>
<td></td>
<td>Equipment Protection Level</td>
</tr>
</tbody>
</table>

Zone (IEC):

Typical ATEX and IECEx Marking

- CE
- Ex
- II
- 2
- G
- Ex
- d
- IIC
- T4
- Gb

- Complies with European Directive
- Specific Marking for Explosion Protection
- Equipment Group
- Equipment Category
- Explosion Protection
- Type of Protection
- Gas Group
- Temperature Class (T1-T6)
- Equipment Protection Level (EPL)

*ATEX only
### Conversions:

#### Distance and Energy

<table>
<thead>
<tr>
<th>Conversion</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilowatts (kW) X</td>
<td>1.341 = Horsepower (hp)</td>
</tr>
<tr>
<td>Feet (ft) X</td>
<td>3.281 = Meters (m)</td>
</tr>
<tr>
<td>Long Ton (LT) X</td>
<td>.98421 = Metric Ton (t)</td>
</tr>
</tbody>
</table>

#### Liquid (NOTE: Values are approximate.)

<table>
<thead>
<tr>
<th>Liquid</th>
<th>bbl/LT</th>
<th>m³/t</th>
<th>bbl/m³</th>
<th>bbl/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshwater</td>
<td>6.40</td>
<td>1.00</td>
<td>6.29</td>
<td>6.29</td>
</tr>
<tr>
<td>Saltwater</td>
<td>6.24</td>
<td>.975</td>
<td>6.13</td>
<td>5.98</td>
</tr>
<tr>
<td>Heavy Oil</td>
<td>6.77</td>
<td>1.06</td>
<td>6.66</td>
<td>7.06</td>
</tr>
<tr>
<td>DFM</td>
<td>6.60</td>
<td>1.19</td>
<td>7.48</td>
<td>8.91</td>
</tr>
<tr>
<td>Lube Oil</td>
<td>7.66</td>
<td>1.20</td>
<td>7.54</td>
<td>9.05</td>
</tr>
</tbody>
</table>

#### Weight

<table>
<thead>
<tr>
<th>Weight</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Long Ton</td>
<td>2240 lbs</td>
</tr>
<tr>
<td>1 Metric Ton</td>
<td>2204 lbs</td>
</tr>
<tr>
<td>1 Short Ton</td>
<td>2000 lbs</td>
</tr>
<tr>
<td>1 Cubic Foot</td>
<td>7.48 gal</td>
</tr>
<tr>
<td>1 Barrel (oil)</td>
<td>5.61 ft = 42 gal = 6.29 m³</td>
</tr>
<tr>
<td>1 psi</td>
<td>.06895 Bar = 2.3106 ft of water</td>
</tr>
</tbody>
</table>

#### Temperature: Fahrenheit = Celsius (°F = 9/5 °C + 32 and °C = 5/9 (°F – 32))

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Fahrenheit</th>
<th>Celsius</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>80</td>
<td>26.7</td>
</tr>
<tr>
<td>40</td>
<td>100</td>
<td>37.8</td>
</tr>
<tr>
<td>50</td>
<td>110</td>
<td>43.3</td>
</tr>
<tr>
<td>60</td>
<td>120</td>
<td>48.9</td>
</tr>
<tr>
<td>70</td>
<td>150</td>
<td>65.6</td>
</tr>
</tbody>
</table>

#### Pressure: Bars = Pounds per square inch

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bar</td>
<td>14.5 psi</td>
</tr>
<tr>
<td>2 bars</td>
<td>29.0 psi</td>
</tr>
<tr>
<td>3 Bars</td>
<td>43.5 psi</td>
</tr>
<tr>
<td>4 Bars</td>
<td>58.0 psi</td>
</tr>
<tr>
<td>5 Bars</td>
<td>72.5 psi</td>
</tr>
<tr>
<td>6 Bars</td>
<td>87.0 psi</td>
</tr>
<tr>
<td>7 Bars</td>
<td>101.5 psi</td>
</tr>
<tr>
<td>8 Bars</td>
<td>116.0 psi</td>
</tr>
<tr>
<td>9 Bars</td>
<td>130.5 psi</td>
</tr>
<tr>
<td>10 Bars</td>
<td>145.0 psi</td>
</tr>
</tbody>
</table>