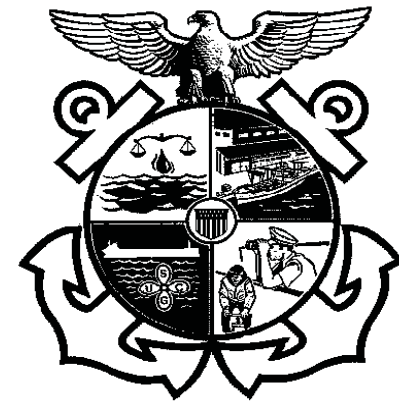


United States Coast Guard



**FOREIGN MOBILE OFFSHORE DRILLING UNIT
EXAMINER
COMPETENCY CODE (FMUE)**

Training Aid

Use of Foreign Mobile Offshore Drilling Unit Training Aid:

This is a condensed version of the FMU Examiner Performance and Qualification Standard (PQS) workbook. This Training Aid is intended to be used by Coast Guard Coastal State Examiners and Port State Control Officer trainees during examinations of foreign flagged Mobile Offshore Drilling Units. This Training Aid provides a quick reference for all the steps necessary to complete specific examination tasks listed in the FMUE Job Aid.

This PQS workbook cites SOLAS regulations from the 2009 Consolidated Edition (SOLAS 09). In some cases, the regulations in SOLAS 09 may not apply due to the keel laid date of the vessel. Examiners must pay close attention to the applicability dates of the SOLAS chapters and regulations when conducting exams.

FMUE-FU05 - Endorse certificates

.01	Endorse COC	MSM II/G.3.A.2.e CG-3585 CG-5437A/B
.02	Obtain copy of endorsed certificates	MSM II/G.3.N.9 CG-3585 CG-5437A/B
.03	Ensure COC is endorsed for correct options	MSM II/G.3.N.9 CG-3585 CG-5437A/B

FMUE-FU06 - Complete Maritime Information for Safety and Law Enforcement (MISLE) Activity

.01	Update examination results with deficiencies issued on Form B	MISLE Work Instruction
.02	Update activity narrative and special notes (as necessary)	MISLE Work Instruction
.03	Update details	MISLE Work Instruction
.04	Ensure unfired pressure vessel internal exam and relief valve test dates are documented in MISLE	MSM II/G.3.G.4
.05	Update documents	MISLE Work Instruction
.06	Change status to "Open-Submitted for Review"	MISLE Work Instruction

Table of Contents:

Foreign Mobile Offshore Drilling Unit Examination

Pre-exam	1
Certificates and Documents	2
Logs and Manuals	3
Bridge/Navigation	8
General Health & Safety	9
Lifesaving Equipment	11
Firefighting Systems	13
Dynamic Positioning	15
Helo-Deck	17
Machinery	18
Electrical Systems	21
Structural/Watertight Integrity	22
Cargo Systems	23
Emergency Drills	24
Follow Up Action	25

Pre-Exam (PE)

FMUE-PE01 - Schedule examination in Maritime Information for Safety and Law Enforcement (MISLE)

.01 Determine the authority, jurisdiction, and applicable regulation(s)	33 CFR 140.3 & .101(a) 33 CFR 143.207 33 CFR 146.205
.02 Locate vessel	MPS-PR-SEC-04 MISLE Work Instruction
.03 Verify documents are current	MPS-PR-SEC-04 MSM I/12.G.5
.04 Review history (narratives, deficiencies & special notes)	MSM I/12.2.a MPS-PR-SEC-02 & 04 MISLE Work Instruction
.05 Verify status of user fees	46 CFR 2.10-130 MSM II/G.3.A.2.a
.06 Prepare folder and required documents	46 CFR 2.01-6 MPS-PR-SEC-04 MPS-PR-SEC-07
.07 Verify status of Certificate of Financial Responsibility (e-COFR)	33 CFR 138.15(b) 33 CFR 138.85 MISLE Work Instruction
.08 Generate new activity	MISLE Work Instruction
.09 Verify submittal of Environmental Protection Agency (EPA) Notice of Intent (NOI)	CG-543 Policy Ltr 11-01
.10 Determine Special Inspection Program (SIP) participation	MSM I/12.2.a MPS-PR-SEC-04

FMUE-PE02 - Coordinate examination with vessel's representative

.01 Identify vessel's representative	MPS-PR-SEC-02 MPS-PR-SEC-04
.02 Confirm vessel arrival time, destination, exam based on Advanced Notice of Arrival (ANOA)	33 CFR 146.202 33 CFR 146.215 MPS-PR-SEC-02
.03 Articulate examination expectations	33 CFR 143.207 33 CFR 146.205 MPS-PR-SEC-02
.04 Verify owner/operator information	MPS-PR-SEC-04
.05 Verify Classification Society information (when applicable)	MPS-PR-SEC-04
.06 Confirm MISLE targeting score with information attained from vessel representative	MSM II/D.4 MSM II/G.3.N

FMUE-PE03 - Conduct meeting with vessel's representative to discuss scope of the examination

.01 Review outstanding Conditions of Class and any third party servicing report discrepancies	MPS-PR-SEC-04
.02 Discuss examination procedures and expectations	33 CFR 143.207 33 CFR 146.205
.03 Review any ongoing operations to include well ops that could affect examination and equipment availability with Master/OIM	MPS-PR-SEC-04
.04 Coordinate actual testing procedures	MPS-PR-SEC-04

FMUE-FU02 - Issue deficiencies

.01 Identify deficiencies	MSM II/D.1.C.8
.02 Discuss deficiencies and corrective measures/timeframe with vessel's master or representative	MSM II/D.2.C
.03 Document deficiencies	MSM II/G.3.N.9 CG-3585 CG-5437A/B
.04 Sign forms (examiner & vessel's representative)	MSM II/G.3.N.9 CG-3585 CG-5437A/B
.05 Issue documents	MSM II/G.3.N.9 CG-3585 CG-5437A/B

FMUE-FU03 - Issue control action(s)

.01 Determine if suspension/non-issuance of COC is warranted	MODU 09/1.7.3 MSM II/G.3.L MSM II/G.3.N.9.f
.02 Determine control action	MODU 09/1.7.3 MODU 09/1.7.6 OCMI Policy
.03 Determine impact to drilling operations	MODU 09/1.7.6 Well/Drilling profile
.04 Evaluate potential well control hazards	MODU 09/1.7.6 Well/Drilling profile
.05 Determine appropriate point to interrupt drilling operations (when applicable)	MODU 09/1.7.6 Well/Drilling profile
.06 Explain control action(s) to responsible parties/stakeholders	MODU 09/1.7 CG-3585 CG-5437A/B
.07 Issue control action(s)	MODU 09/1.7.3 CG-3585 CG-5437A/B

FMUE-FU04 - Verify deficiency corrections

.01 Verify corrected deficiencies	MSM II/D.1.G.3.f CG-3585 CG-5437A/B
.02 Clear deficiencies	MSM II/A.2.C.2.d CG-3585 CG-5437A/B
.03 Remove control action (when applicable)	CG-3585 CG-5437A/B OCMI Policy
.04 Make required notifications (when applicable)	
.05 Clear deficiencies in MISLE activity	MSM II/A2.C.2.d MISLE Work Instruction

FMUE-ED02 - Evaluate Abandon Ship Drill

.01 Determine applicability	33 CFR 146.205 46 CFR 109.213 MODU 09/1.2
.02 Witness abandon ship drill procedures and crew perform assigned duties	46 CFR 109.213(d) MODU 09/14.12.2
.03 Witness crew's competency to deploy and launch different lifeboats	46 CFR 109.213(d) MODU 09/14.12.3
.04 Verify crew are proficient on donning lifejackets	MODU 09/14.12.4.1
.05 Witness a debrief of drill	MODU 09/14.12.2 IMO Res A.891(21) 1.4.6
.06 † Verify voluntary guidance for number of personnel	77 FR 70172 II(b)
.07 † Verify arrangements for helpless person on stretcher to board	77 FR 70172 II(b)

FMUE-ED03 - Evaluate Man Overboard Drill

.01 † Verify master is aware of Federal Register Notice 77 FR 70172	77 FR 70172 II(e)
.02 † Verify man overboard drills are conducted	77 FR 70172 II(e)
.03 † Verify recovery procedures are practiced	77 FR 70172 II(e)
.04 Witness launching, operation, and maneuvering of rescue boat	MODU 09/14.12.5 77 FR 70172 II(e)

Follow Up Actions (FU)**FMUE-FU01 - Verify International Safety Management (ISM) Code**

.01 Determine clear grounds to initiate expanded exam	IMO Res A.1052(17) 2.4
.02 Verify crew familiarity with vessel's Safety Management System (SMS)	ISM Code 6.1
.03 Verify company responsibilities and authority are clearly defined	ISM Code 3
.04 Verify record keeping compliance	ISM Code 11
.05 Verify maintenance requirements	ISM Code 10
.06 Verify training requirement with SMS	ISM Code 6.3 & .4
.07 Review audit documentation and ensure follow-up actions	ISM Code 1.4.6, 9.2
.08 Determine if suspension of drilling operations is required	OCMI Policy

FMUE-PE04 - Issue Letter of Determination (LOD)(when applicable)

.01 Determine applicability	43 USC 1356(c) 33 CFR 141.5
.02 Review request	33 CFR 141.15 NVIC 07-84
.03 Prepare LOD	33 CFR 141.15 NVIC 07-84
.04 Retain a copy and log issued LODs and secure documentation received from employers/applicants	5 USC 552 & 552a COMDTINST M5260.3 COMDTINST M5212.12A

FMUE-PE05 - Mitigate potential hazards encountered during an exam

.01 Recognize potential hazards encountered during an exam	NFPA 306
.02 Determine confined spaces onboard vessel	MSM I/CH10
.03 Determine if exam scope will require a Marine Chemist certification for entry into spaces	29 CFR 1915, Part B MSM II/G.1
.04 Verify Marine Chemist has been scheduled for the exam (when applicable)	MSM I/CH10 App. A
.05 Prepare necessary personal protective equipment for exam	MSM I/CH10 App. A Quattro Operator's Manual MSM I/CH10 App. A
.06 Review CG policy for when to leave a space due to hazardous condition	MSM I/CH10 App. A

Certificates and Documents (CD)**FMUE-CD01 - Review Certificate of Compliance (COC)**

.01 Verify compliance option (A, B or C)	33 CFR 143.207 33 CFR 146.205 MSM II/G.3.B
.02 Verify particulars are accurately reflected	CG-3585
.03 Verify certificate is valid	33 CFR 143.210 46 CFR 2.01-6(a)(3) MSM II/G.3.A.2

FMUE-CD02 - Examine Crew Certificates of Competency and Proficiency

.01 Verify original credentials are onboard and valid	46 CFR 10.205 STCW I/2.11
.02 Verify STCW & Flag State endorsements	46 CFR 10.205 STCW I/10
.03 Verify Transportation Worker Identification Credential (TWIC) (when applicable)	46 CFR 10.203
.04 Verify required number of Lifeboatmen	33 CFR 146.205 46 CFR 109.323 MODU Code 09/14.9.4
.05 Verify letters of determination or certificate of exemption for foreign national(s)	33 CFR 141.15(c) 33 CFR 141.20(f) NVIC 07-84
.06 Verify Dynamic Positioning operator's certificate(s) is valid	MODU Code 09/4.13 IMO MSC.1/Circ. 738 Rev.1

FMUE-CD03 - Examine Code for the Construction and Equipment of Mobile Offshore**Drilling Units Certificate**

- .01 Determine applicability 33 CFR 146.205
MODU Code 09/1.6.7
MSM II/G.3.A.3
- .02 Verify presence MODU Code 09/1.6.7
- .03 Verify validity MODU Code 09/1.6.7

FMUE-CD04 - Examine copy of Document of Compliance (ISM-DOC)

- .01 Determine applicability SOLAS 09 IX/2
CG-ENG Policy Ltr 02-12
MSM II/G.3.A.10
- .02 Verify presence SOLAS 09 IX/4.2
ISM Code 13.6
- .03 Verify validity SOLAS 09 IX/5
ISM Code 13.2-5
- .04 Verify form ISM Code 16

Logs and Manuals Examination (LM)**FMUE-LM01 - Examine Logbook entries**

- .01 Verify pre-arrival/departure checks (when applicable) 33 CFR 164.25
MODU 09/11.10
SOLAS 09 V/26
- .02 Verify fire and lifesaving training/drills 33 CFR 146.205
46 CFR 109.433(d)
MODU 09/14.14.1
- .03 Verify EPIRB test(s) 46 CFR 109.301(e)(2)
MODU 09/14.14.1
SOLAS 09 IV/15.9
- .04 Verify lifesaving equipment taken out of service 46 CFR 109.433(d)
46 CFR 109.213(h)(1)(iii)
- .05 Verify sanitary inspections 46 CFR 109.203
46 CFR 109.433(g)
ILO -147 p39/35
- .06 Verify marine casualties 46 CFR 109.411
MODU 09/1.8.1
SOLAS 09 I/11(c)

FMUE-LM02 - Review lifesaving equipment maintenance logs/reports

- .01 Review liferafts records 33 CFR 146.205
46 CFR 109.301(b)(1)(vii)
MODU 09/10.1.4 & 14.14.2.6
- .02 Review lifeboat records 46 CFR 109.301(b)(1)(vii)
MODU 09/14.14.2.6
SOLAS 09 III/36.7
- .03 Review rescue boat records (when applicable) 46 CFR 109.301(b)(1)(vii)
MODU 09/14.14.2.6
SOLAS 09 III/36.7
- .04 Review davits falls/winch(s) records 46 CFR 109.301(b)(1)(vii)
MODU 09/14.14.2.6
SOLAS 09 III/36.7

FMUE-CS02 - Examine crane(s)

- .01 Determine applicability 33 CFR 143.207 & 46 CFR 108.601
33 CFR 146.205 & 46 CFR 109.521
MODU 09/12.1
- .02 Examine components API RP 2D/App. C
- .03 Verify controls are marked 46 CFR 108.601(b)(1)
MODU 09/12.1.1
- .04 Verify instruments have lighting 46 CFR 108.601(b)(2)
MODU 09/12.1.1
- .05 Verify correct load chart for configuration in use 46 CFR 109.525
MODU 09/12.1.7
API RP 2D/C.4.1.2a
- .06 Verify alarms MODU 09/12.1.8 & .10
API RP 2D/C.4.1.2b
API RP 2D/C.4.1.2c
- .07 Verify crane record book 33 CFR 146.205 (c)
46 CFR 109.437
API RP 2D/Section 3

Emergency Drills (ED)**FMUE-ED01 - Evaluate Fire Drill**

- .01 Determine applicability 33 CFR 146.205
46 CFR 109.213
MODU 09/1.2
- .02 Witness fire fighting drill procedures and crew perform assigned duties 46 CFR 109.213(b)
MODU 09/14.12.2
- .03 Verify crew's ability to organize into an effective team to respond to an emergency 46 CFR 109.213(f)(2)
MODU 09/14.9.1 & .2
- .04 Verify effective communication between crew on scene and master in command center 46 CFR 109.213(f)(2)(iv)
MODU 09/14.12.2
IMO Res A.891(21)
- .05 Witness debrief of drill MODU 09/14.12.2
IMO Res A.891(21) 1.4.6
- .06 Evaluate crew's knowledge for responding to helideck incidents MODU 09/14.2
MODU 09/14.12

FMUE-SW02 - Examine internal watertight bulkheads and doors/closures

- .01 Access condition and components MODU 09/3.6.5
SOLAS 09 II-I/13-1.1
ICLL I/12, 17 & 18
- .02 Access condition of ventilator closures MODU 09/3.6.1
MODU 09/3.6.5 & .6
ICLL I/19(4)
- .03 Verify quick acting type doors local/remote alarms (when applicable) MODU Code 3.6.5.2
SOLAS 09 II-1/13-1.3
- .04 Verify local/remote operation of power watertight door opening/closing controls 33 CFR 143.207
46 CFR 174.100
MODU 09/3.6.5.1 & 3
- .05 Verify local/remote operation of audible and visual alarm/indicators MODU Code 3.6.5.2
MODU Code 3.6.5.3
SOLAS 09 II-I/13-1.2 & .3

FMUE-SW03 - Examine external watertight integrity

- .01 Ensure all penetrations are watertight MODU 09/3.6.1
SOLAS 09 II-1/15-1
- .02 Verify down-flooding openings have watertight closings MODU 09/3.6.7
MODU 09/3.7.2
ICLL 1/19 & 20
- .03 Evaluate condition of watertight door(s) and hatches MODU 09/3.6.3
ICLL 1/22

Cargo Systems Examination (CS)**FMUE-CS01 - Examine marine portable tanks (MPT)**

- .01 Determine applicability 33 CFR 146.205
46 CFR 109.557
46 CFR 98.30-5
- .02 Verify DOT labeling/placards 46 CFR 109.557
49 CFR 172.326
- .03 Verify additional fire fighting equipment 46 CFR 109.557
46 CFR 98.30-37
- .04 Verify stowage and segregation 46 CFR 109.557
46 CFR 98.30-9
49 CFR 171.25(b)(2)

FMUE-LM03 - Review records of emergency training and drills

- .01 Verify crew and industrial personnel participated in abandonment drill and fire drills 33 CFR 146.205
46 CFR 109.213(c)(2)
MODU 09/14.12.1
- .02 Verify drill includes operating davits used for launching liferafts 46 CFR 109.213(d)(1)(vii)
MODU 09/14.12.2
SOLAS 09 III/19.3.3.1.7
- .03 Verify different lifeboat(s) are used for each drill 46 CFR 109.213(d)(2)
MODU 09/14.12.3
SOLAS 09 III/19.3.2
- .04 Verify lifeboats and rescue boats are launched and operated 46 CFR 109.213(d)(3) & (4)
MODU 09/14.12.5
SOLAS 09 III/19.3.3 & 19.3.6
- .05 Examine training records for davit-launched liferaft 46 CFR 109.213(g)(5)
MODU 09/14.13
SOLAS 09 III/19.4.3
- .06 Verify voluntary compliance with recommended interim voluntary guidance for lifesaving & fire-fighting equipment training & drills 77 FR 70172, Section II(c) - (e)

FMUE-LM04 - Examine liferaft maintenance records and service logs/reports

- .01 Examine log for record of inspections and maintenance 33 CFR 146.205
46 CFR 109.301(b)(1)(vii)
MODU 09/10.18.2
- .02 Examine annual reports 46 CFR 109.301(g)(3)
MODU 09/10.18.9
SOLAS 09 III/20.8
- .03 Verify periodic examination of launching appliances and dynamic testing of winch(s) 46 CFR 109.301(i)
MODU 09/10.18.12.1
SOLAS 09 III/20.11
- .04 Verify maintenance of falls 46 CFR 109.301(j)
MODU 09/10.18.5
SOLAS 09 III/20.4
- .05 Verify periodic examination and operational test of release hook(s) 46 CFR 109.301(i)
MODU 09/10.18.12.3
SOLAS 09 III/20.11.3
- .06 Verify discrepancies on servicing reports are corrected MODU 09/9.19.1

FMUE-LM05 - Examine lifeboat maintenance records and service logs/reports

.01 Examine record of inspection and maintenance	33 CFR 146.205 46 CFR 109.301(b)(1)(vii) MODU 09/10.18.2
.02 Verify weekly inspection and test	46 CFR 109.301(d) MODU 09/10.18.7 SOLAS 09 III/20.6
.03 Verify monthly inspection	46 CFR 109.301(e) SOLAS 09 III/20.7 MODU 09/10.18.8
.04 Verify annual inspection and tests of launching appliance(s) and on-load release gear(s)	46 CFR 109.301(f) & (i) SOLAS 09 III/20.11 MODU 09/10.18.12
.05 Verify periodic overhaul and tests of launching appliance(s), fall(s), winch(s) and release gear(s) (when applicable)	46 CFR 109.301(i)(2) & (j) SOLAS 09 III/20.4; 11.1.3 & 11.2 MODU 09/10.18.5; 10.18.12.1 & .2
.06 Verify release hook meets IMO revised regulations	SOLAS 10-11 III/1.5 SOLAS Amended 10/11 Reg III/1.5 LSA Code 4.4.7.6.4
.07 Verify discrepancies on servicing reports are corrected	MODU 09/9.19.1

FMUE-LM06 - Examine fire fighting equipment maintenance and service logs/reports

.01 Examine record of inspection and maintenance	33 CFR 146.205 46 CFR 109.435(a) MODU 09/9.19.4.1 & 14.14.2.5
.02 Verify maintenance plan is onboard and applicable	MODU 09/9.19.4.2 SOLAS 09 II-2/14.2.2.2
.03 Verify maintenance plan includes systems and appliances	46 CFR 109.223 MODU 09/9.19.4.3 SOLAS 09 II-2/14.2.2.3
.04 Verify annual inspection and servicing IAW manufacturer's instruction	46 CFR 109.223 MODU 09/9.19.4.1 IMO MSC.1/Circ. 1432
.05 Verify discrepancies on servicing reports are corrected	MODU 09/9.19.1 CG-ENG Policy Ltr 01-14

FMUE-LM07 - Examine fire detection system maintenance and service logs/reports

.01 Examine record of inspection and maintenance	33 CFR 146.205 46 CFR 109.435(a) MODU 09/9.19.4.1 & 14.14.2.5
.02 Verify maintenance plan is onboard and applicable	MODU 09/9.19.4.2 SOLAS 09 II-2/14.2.2.2
.03 Verify maintenance plan includes systems	46 CFR 109.223 MODU 09/9.19.4.3 SOLAS 09 II-2/14.2.2.3
.04 Verify annual inspection and servicing IAW with manufacturer's instructions	46 CFR 109.223 MODU 09/9.19.4.1 IMO MSC.1/Circ. 1432
.05 Verify discrepancies on servicing reports are corrected	MODU 09/9.19.1

FMUE-ES05 - Examine machinery in hazardous areas

.01 Identify hazardous locations with machinery	MODU 09/6.2
.02 Verify machinery is approved	MODU 09/6.7.1 MODU 09/6.7.3
.03 Verify fire equipment is approved	MODU 09/6.7.4

FMUE-ES06 - Examine openings, access and ventilation conditions in hazardous areas

.01 Determine applicability	33 CFR 143.207 46 CFR 108.170 MODU 09/6.1 & 6.4
.02 Verify arrangement of hazardous area openings	46 CFR 108.171 & .173 46 CFR 108.175 MODU 09/6.3
.03 Verify arrangements for ventilation	46 CFR 108.181 MODU 09/6.3 MODU 09/6.4
.04 Examine condition of boundaries	46 CFR 108.171 & .173 46 CFR 108.175 MODU 09/6.3
.05 Verify alarm	46 CFR 108.171 & .173 46 CFR 108.175 MODU 09/6.3

FMUE-ES07 - Examine emergency shutdown & disconnect(s)

.01 Verify location(s) of activation points	MODU 09/6.5.3
.02 Verify arrangements to prevent inadvertent activation	MODU 09/6.5.4
.03 Verify system(s) operation after emergency shutdown	MODU 09/6.5.5
.04 Verify testing	MODU 09/14.14.2

Structural/Watertight Integrity Examination (SW)**FMUE-SW01 - Examine general condition hull and structural members**

.01 Evaluate hull for signs of pollution/illegal discharge	33 USC 1321 MARPOL I/15
.02 Examine condition of ladderways, guardrails, fire mains, piping, hatch covers & watertight/weathertight closures	MODU 09/2.1.3 MSM II/D.1.G.1.b(1)
.03 Evaluate hull strength and integrity	33 CFR 143.207 & 46 CFR 108.113 MODU 09/2.1.3 ICLL 66 Annex I/1
.04 Evaluate Critical Structural Areas	33 CFR 143.207 46 CFR 108.113 MODU 09/2.2.3.1.3

Electrical Systems Examination (ES)

FMUE-ES01 - Examine switchboards

- .01** Verify openings and accesses in switchboard are guarded MODU 09/5.6.3
MODU 09/5.6.5
IEC 60529
- .02** Verify non-conductive mats or gratings MODU 09/5.6.5
IEC 61111
- .03** Verify condition of meters, controls, and gauges MODU 09/5.1.1.3
- .04** Verify markings MODU 09/5.6.14

FMUE-ES02 - Examine motor controllers

- .01** Verify condition of enclosure MODU 09/5.1.1.4
- .02** Verify markings MODU 09/5.6.14
- .03** Verify drip-proof/watertight MODU 09/5.6.21
IEC 60529

FMUE-ES03 - Examine controls and alarms for unattended machinery spaces (when applicable)

- .01** Verify administration approved documentation MODU 09/8.2.5
- .02** Verify fire detection system alarms MODU 09/9.10.3.1
- .03** Verify engineers' alarm is operational MODU 09/8.7.1.2
- .04** Verify alarm system fail to safety principle MODU 09/8.7.1.3 & .4
- .05** Verify alarm system is continuously powered MODU 09/8.7.2
MODU 09/8.7.3
- .06** Verify alarms can not be inhibited MODU 09/8.7.4
- .07** Verify any serious malfunction of any machinery or boiler operations initiates automatic shutdown MODU 09/8.9
- .08** Verify operation of Oil Mist Detection system MODU 09/8.3.7

FMUE-ES04 - Examine electrical components in hazardous area(s)

- .01** † Determine applicability 33 CFR 143.207 & 46 CFR 108.170
MODU 09/6.6
77 FR 71607
- .02** Review hazardous location plan 46 CFR 108.171-.175
MODU 09/1.2.15
- .03** Verify electrical equipment 46 CFR 108.177
MODU 09/6.6
- .04** Verify system integrity 46 CFR 108.177
MODU 09/6.6
MODU 09/6.7.3
77 FR 71607
- .05** Verify master is aware of Federal Register Notice (when applicable)† 77 FR 71607
- .06** † Verify electrical equipment is tested by third-party MODU 09/6.6
77 FR 71607

FMUE-LM08 - Examine gas detection maintenance and service logs/reports

- .01** Examine record of inspection and maintenance 33 CFR 146.205
MODU 09/9.19.4.1
MODU 09/14.14.2.5
- .02** Verify maintenance plan is onboard and applicable MODU 09/9.19.4.2
- .03** Verify maintenance plan includes systems MODU 09/9.19.1
MODU 09/9.19.4.3
- .04** Verify all zones are being tested MODU 09/9.11.1
- .05** Witness a satisfactory calibration of system(s) (when applicable) MODU 09/9.19.1.2
Operations Manual
- .06** Verify discrepancies on servicing reports are corrected MODU 09/9.19.1

FMUE-LM09 - Examine crane maintenance and service logs/reports

- .01** Verify installation is approved 33 CFR 143.207
46 CFR 108.601
MODU 09/12.1.1
- .02** Verify initial load test 33 CFR 146.205
46 CFR 109.437(b) & API Spec. 2C/1.6.4
MODU 09/12.1.5
- .03** Verify annual inspection 46 CFR 109.521
MODU 09/12.1.6
API RP 2D/4.1.2.5 & 4.2.2
- .04** Verify each rated load test and recertification's 46 CFR 109.437(e)
MODU 09/12.1.6
API RP 2D/4.2.3
- .05** Verify if de-rated and load rating chart has been revised (when applicable) 46 CFR 109.521
MODU 09/12.1.4
API RP 2D/4.5 & API Spec. 2C/4.2.1.g
- .06** Verify manual(s) are available 33 CFR 143.207
46 CFR 109.437 (b) & API Spec. 2C/1.6.4
MODU 09/12.1.10
- .07** Verify crane operator(s) are designated in writing and qualified 46 CFR 109.527
API RP 2D/3.1.2
- .08** Verify discrepancies on servicing reports are corrected 46 CFR 109.521
46 CFR 108.601
MODU 09.19.1

FMUE-LM10 - Examine Unfired Pressure Vessels (UPVs) and relief valves maintenance and service logs/reports

- .01** Determine required testing and inspections 33 CFR 143.207
MSM II/G.3.G.4
- .02** Verify UPV tests (when applicable) 46 CFR 61.10-5(i)(2)
MODU 09/4.3.4
MSM II/G.3.G.4
- .03** Verify UPV five year internal inspection (when applicable) 46 CFR 61.10-5(b)(2)
MODU 09/4.3.1
MSM II/G.3.G.4
- .04** Verify discrepancies on servicing reports are corrected MODU 09/9.19.1

FMUE-LM11 - Examine Operations Manual

.01	Verify approval	46 CFR 109.121 MODU 09/14.1 MSM II/G.3.F
.02	Verify hazardous locations are identified	46 CFR 109.121 MODU 09/14.1.2.15
.03	Verify manual addresses normal and emergency activities	46 CFR 109.121 MODU Code 14.1.3 & .4
.04	Verify contents are in English and other language(s) understood by personnel on board	MODU 09/14.1.6 46 CFR 109.121(b) MSM II/G.3.F
.05	Verify stability calculations contained in manual are approved (stamp/letter)	NVIC 03-88 Ch-1 Section 6 MODU 09/14.1.2 .9, .10 & .16 46 CFR 109.121(a)
.06	Verify changes affecting lightship data are maintained in lightship data alterations log	33 CFR 143.207 & 46 CFR 108.301 46 CFR 109.227(a) & 170.110 MODU 09/3.1.3 & .4 & 14.1.2.9
.07	Examine alternative stability criteria accepted by Flag State (when applicable)	46 CFR 109.121(b)(5) MODU 09/3.3.3 MSM II/G.3.E
.08	Verify Dynamic Positioning operational requirements	MODU 09/14.1.3.13 DP Ops Guidance 1/4.7 IMO MSC/Circ. 645

FMUE-LM12 - Examine Emergency Evacuation Plan (EEP)

.01	Determine applicability	33 CFR 146.201 33 CFR 146.210
.02	Verify approval letter is on board	33 CFR 146.210(a) 33 CFR 146.140(b)
.03	Verify content	33 CFR 146.140(d)(1) MSM II/G.3.K
.04	Verify revision pages for changes	33 CFR 146.140(d)(3)
.05	Verify EEP is applicable to unit's current location and reflects on site conditions	33 CFR 146.140(a)

FMUE-LM13 - Examine construction (booklet) portfolio

.01	Verify presence of copy	33 CFR 143.207 & 46 CFR 108.113 MODU 09/2.13 ABS Rules 7.1.2.25
.02	Verify reviewed and endorsed by class	46 CFR 108.113 ABS Rules 7.1.2.25
.03	Verify content	46 CFR 108.113 MODU 09/2.13 ABS Rules 7.1.2.25(i)-(iv)

FMUE-MI08 - Examine main service and propulsion generator(s) and prime mover(s)

.01	Examine condition of components	MODU 09/4.1.3 IMO MSC/Circ. 834 Class Society Rules
.02	Verify installation of machinery covers and guards	MODU 09/4.1.3 Class Society Rules
.03	Verify required gauges	MODU 09/2.1.3 IMO Res A.1021(26) Class Society Rules
.04	Verify set point and operation of over speed shut-down	MODU 09/2.1.3 & 4.3.7 IMO Res A.1021(26) Class Society Rules
.05	Verify set point and operation of lube oil shut-down	MODU 09/2.1.3 & 4.3.7 IMO Res A.1021(26) Class Society Rules
.06	Verify set point and operation of high jacket water temperature alarm	MODU 09/2.1.3 & 4.3.7 IMO Res A.1021(26) Class Society Rules
.07	Verify operation of reverse power relays	MODU 09/5.3.7.2 Class Society Rules
.08	Verify procedures to bring vessel into operation from a dead ship condition	MODU 09/4.3.9
.09	Verify manual override activation indicators	MODU 09/4.6.2

FMUE-MI09 - Examine emergency generator(s) and prime mover(s)

.01	Determine requirement	MODU 09/5.4
.02	Examine condition of components	MODU 09/4.1.3 IMO MSC/Circ. 834 Class Society Rules
.03	Verify installation of machinery covers and guards	MODU 09/4.1.3 IMO MSC/Circ. 834
.04	Verify two starting resources	MODU 09/5.5.2
.05	Verify operation of auto-start function	MODU 09/5.4.8
.06	Verify required gauges	MODU 09/2.1.3 IMO Res A.1021(26) MODU 09/9.15.3
.07	Verify operation of remote fuel shutoff valve	
.08	Verify set point and operation of over speed shut-down	MODU 09/2.1.3 & 4.3.7 IMO Res A.1021(26) Class Society Rules
.09	Verify set point and operation of lube oil shut-down	MODU 09/2.1.3 & 4.3.7 Class Society Rules
.10	Verify set point and operation of high jacket water temperature alarm	MODU 09/2.1.3 & 4.3.7 IMO Res A.1021(26) Class Society Rules

FMUE-MI04 - Examine ballast pumps installation, piping and valves on ship-shaped

<u>hulls</u>	
.01 Determine applicability	MODU 09/14.1.2
.02 Verify contents of Loading and Unloading Booklet	SOLAS 09 VI/7.2.2 SOLAS 09 VI/7.7
.03 Verify material condition of equipment	SOLAS 09 II-I/35-1.2.4

FMUE-MI05 - Examine oil/fuel service and transfer system(s)

.01 Verify condition	MODU 09/4.8.4 MODU 09/4.8.6
.02 Verify arrangement of system(s)	MODU 09/4.8.1-.3 MODU 09/4.8.6
.03 Verify condition of tank vent(s)	MODU 09/4.8.5
.04 Verify arrangement of pressurized fuel piping	MODU 09/4.8.7 MODU 09/8.3.1
.05 Verify means to prevent overflow spillage	MODU 09/8.3.2
.06 Verify high temperature alarm (when applicable)	MODU 09/8.3.3
.07 Witness test of remote operated valve(s)	MODU 09/9.15.3

FMUE-MI06 - Examine Unfired Pressure Vessels (UPVs)

.01 Determine applicability	MSM II/G.3.G.4 MOA OCS-08 Annex 1/22.J
.02 Verify arrangement of Pressure Relief Valve(s) (PRV)	MODU 09/4.3.4 MODU 09/4.7.1
.03 Verify marking(s) of PRV	MSM II/G.3.G.4
.04 Verify arrangement of UPV	MODU 09/4.3.2 MSM II/G.3.G.4
.05 Verify marking(s) of UPV	MODU 09/4.3.1 MSM II/G.3.G.4
.06 Examine external condition of UPV	MSM II/G.3.G.4

FMUE-MI07 - Examine steering gear assembly and operation

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

FMUE-LM14 - Examine Oil Record Book Part II (ORB) (when applicable)

.01 Determine applicability	MARPOL I/36
.02 Verify operation entries	MARPOL I/36.2
.03 Verify each completed operation and page is signed	MARPOL I/36.5
.04 Verify failures of oil discharge monitoring system	MARPOL I/36.6

Bridge/Navigation Examination (BN)**FMUE-BN01 - Examine propulsion and operational mode indicators**

.01 Verify propeller indicator(s)	33 CFR 164.25 MODU 09/7.4.2.8
.02 Verify control station indicator(s)	33 CFR 164.25 MODU 09/7.2.5

FMUE-BN02 - Verify operations of communication equipment

.01 Verify helicopter communication	MODU 09/11.6
.02 Verify radio equipment compliance with of SOLAS (when engaged in drilling operations)	MODU 09/11.5 SOLAS 09 IV/7-11

FMUE-BN03 - Examine sound reception system on totally enclosed bridge

.01 Determine applicability	MODU 09/11.10.1 SOLAS 09 V/19.2.1.8
.02 Verify enclosed bridge sound reception system or other means	MODU 09/11.5.3 SOLAS 09 V/19.2.1.8
.03 Witness operation	MODU 09/11.5.3 SOLAS 09 V/19.2.1.8

FMUE-BN04 - Witness operational test of steering gear

.01 Witness operational test of steering gear controls	MODU 09/1.6.2.2 MODU 09/7.5.3 MODU 09/7.5.10
.02 Verify rudder angle indicator accuracy	MODU 09/7.5.15
.03 Verify operation of loss of power alarm	MODU 09/7.5.5
.04 Verify motor overload and phase failure audible and visual alarms	MODU 09/7.6.3

FMUE-BN05 - Examine internal communications

.01 Verify means of communication with control room	MODU 09/11.7 MODU 09/7.7
.02 Verify means of communication with steering gear compartment	MODU 09/7.5.14
.03 Verify means of communication with all spaces requiring action in case of an emergency	MODU 09/5.7.5

FMUE-BN06 - Examine anchor(s) and chain

.01 Verify condition of anchor(s)	MODU 09/4.12 ILO -147 3(g) Class Society Rules
.02 Verify condition of visible anchor chain	MODU 09/4.12 ILO -147 3(g)

FMUE-BN07 - Examine hull for required markings

- | | | |
|-----|--|---|
| .01 | Verify Load Line is permanently marked | MODU 09/3.7.1
ICLL 5-9
MSM II/G.3.A.4 |
| .02 | Verify presence of deck line | ICLL 4 |
| .03 | Verify IMO number | SOLAS 09 XI-1/3 |
| .04 | Verify draught (draft) marks | SOLAS 09 II-1/5.6 |

FMUE-BN08 - Examine hull, anchors and anchor chain for compliance with the Non-Indigenous Aquatic Nuisance Species Act

- | | | |
|-----|--|--|
| .01 | Verify hull/anchor is free of organisms and sediment | MODU 09/2.11
MODU 09/2.16
MSM II/D.1.G.1.t |
| .02 | Evaluate condition of hull anti fouling coating | MODU 09/2.11
AFS Convention |

General Health & Safety Examination (GH)**FMUE-GH01 - Examine accommodations**

- | | | |
|-----|-----------------------------------|---|
| .01 | Verify berth arrangement and size | 46 CFR 108.199
46 CFR 108.201
46 CFR 108.2031 |
| .02 | Verify means of escape | 46 CFR 108.151
46 CFR 108.153
MODU 09/9.4 |
| .03 | Verify ventilation | 33 CFR 143.207
46 CFR 108.213 |
| .04 | Verify housekeeping practices | 33 CFR 146.205
46 CFR 109.203 |

FMUE-GH02 - Examine galley

- | | | |
|-----|--|----------------------|
| .01 | Verify sanitary conditions | 46 CFR 109.203 |
| .02 | Verify condition of vents and ducts | MODU 09/9.3.15 & .19 |
| .03 | Verify condition of galley window closures | MODU 09/9.3.22 |
| .04 | Verify galley/adjacent spaces meet structural fire protection requirements | MODU 09/Table 9-1 |

FMUE-GH03 - Examine personal protective equipment and procedures

- | | | |
|-----|---|---------------|
| .01 | Verify personal (eye, head, and face) protection is available | 33 CFR 142.27 |
| .02 | Verify condition of work space | 33 CFR 142.84 |
| .03 | Verify foot protection | 33 CFR 142.33 |
| .04 | Verify protective clothing | 33 CFR 142.36 |
| .05 | Verify safety belt or harness are available | 33 CFR 142.42 |
| .06 | Verify respiratory protection equipment available | 33 CFR 142.90 |
| .07 | Verify personnel working in locations over water are wearing personal floatation device | 33 CFR 142.45 |
| .08 | Verify eyewash equipment is available | 33 CFR 142.48 |
| .09 | Verify personnel protection for openings in decks | 33 CFR 142.87 |
| .10 | Verify lock out/tag out is being utilized | 33 CFR 142.90 |

Machinery Equipment Examination (MI)**FMUE-MI01 - Examine bilge pumps installation, piping, and valves**

- | | | |
|-----|---|--|
| .01 | Examine bilge system components | MODU 09/4.9.1
MODU 09/4.9.3 |
| .02 | Verify system arrangement(s) including flood protection | MODU 09/4.9.1
MODU 09/4.9.8.1
MODU 09/4.11 |
| .03 | Verify valve indicators | MODU 09/4.9.6
MODU 09/3.6.2 |
| .04 | Witness operation of alarms | MODU 09/8.4 |

FMUE-MI02 - Examine arrangements for propulsion engine(s)

- | | | |
|-----|---|---|
| .01 | Examine condition of components | MODU 09/4.1.3
IMO MSC/Circ. 834
Class Society Rules |
| .02 | Verify machinery covers and guards | MODU 09/4.1.1 & .3
Class Society Rules |
| .03 | Verify required gauges | MODU 09/2.1.3
IMO Res A.1021(26)
Class Society Rules |
| .04 | Verify set point and operation of over speed shut-down | MODU 09/2.1.3 & 4.3.3 & .7
IMO Res A.1021(26)
Class Society Rules |
| .05 | Verify set point and operation of lube oil shut-down | MODU 09/2.1.3 & 4.3.3 & .7
IMO Res A.1021(26)
Class Society Rules |
| .06 | Verify set point and operation of high jacket water temperature alarm | MODU 09/2.1.3
IMO Res A.1021(26)
Class Society Rules |
| .07 | Verify procedures to bring vessel into operation from a dead ship condition | MODU 09/4.3.9
IMO MSC/Circ. 834 |
| .08 | Verify manual override activation indicators | MODU 09/4.6.2
IMO Res A.1021(26) |

FMUE-MI03 - Examine ballast pumps installation, piping, and valves Column Stabilized Units

- | | | |
|-----|--|---|
| .01 | Determine applicability | MODU 09/1.2
MODU 09/4.10 |
| .02 | Verify pump local/remote arrangement(s) | MODU 09/4.10.3
MODU 09/4.10.11 & .12 |
| .03 | Verify emergency power requirements | MODU 09/4.10.6
MODU 09/5.4.6.7 |
| .04 | Verify local/remote valve operation | MODU 09/4.10.13 |
| .05 | Verify piping material and condition | MODU 09/4.10.7
Class Society Rules |
| .06 | Verify Ballast Control Station Arrangement | MODU 09/4.10.10 |
| .07 | Verify marking(s) components | MODU 09/4.10.8
MODU 09/4.10.17 |
| .08 | Verify tank level indicator(s) and draft reading operation | MODU 09/4.10.14
MODU 09/4.10.15 |
| .09 | Verify means of communication | MODU 09/4.10.19 |

Helo Deck Examination (HD)

FMUE-HD01 - Examine helideck

.01 Examine helicopter deck lights operation and arrangement	MODU 09/13.5.20 MODU 09/13.5.23-26 MSM II/G.3.G.10
.02 Examine periphery netting arrangement and condition	MODU 09/13.4.2
.03 Verify deck markings	MODU 09/13.5.5 MODU 09/13.5.6-7 MODU 09/13.5.18
.04 Verify deck is free of obstructions	MODU 09/13.5.15
.05 Verify main and emergency personnel access route	MODU 09/13.4.3
.06 Verify structural fire protection requirements	MODU 09/9.16.2 MODU 09/9.3
.07 Verify wind indicator	MODU 09/13.5.1
.08 Verify skid-resistance surface	MODU 09/13.3.4
.09 Verify operation of H2S warning light	MODU 09/13.5.26

FMUE-HD02 - Examine helideck fire fighting systems

.01 Verify dry powder extinguishers	MODU 09/9.16.4.1
.02 Verify CO2 extinguishers	MODU 09/9.16.4.2
.03 Verify foam is appropriate type	MODU 09/9.16.4.4
.04 Verify CO2 extinguishers	MODU 09/9.16.4.3
.05 Verify additional fire-fighting outfits	MODU 09/9.16.4.6
.06 Verify additional equipment required	MODU 09/9.16.4.7
.07 Verify arrangements for drainage	MODU 09/9.16.5

FMUE-HD03 - Examine refueling station

.01 Inspect portable fuel storage tank(s)	46 CFR 109.557 MODU 09/9.16.6.4
.02 Verify tank(s) are remote as practical	MODU 09/9.16.6.1
.03 Verify tank(s) are isolated from ignition source(s)	MODU 09/9.16.6.1
.04 Verify tank area(s) have containment	MODU 09/9.16.6.2
.05 Verify emergency shutdown(s)	MODU 09/9.16.6.5
.06 Verify pump has running indicator light	MODU 09/9.16.6.7
.07 Verify unit is outfitted with grounding device	MODU 09/9.16.6.9
.08 Verify pumping unit over pressurization device	MODU 09/9.16.6.8
.09 Verify signs posted	MODU 09/9.16.6.10

FMUE-GH04 - Examine hospital space

.01 Determine applicability	33 CFR 146.205 33 CFR 143.207
.02 Verify sanitary conditions	33 CFR 146.205 46 CFR 109.203
.03 Verify adequate number of berths	33 CFR 143.207 46 CFR 108.209
.04 Verify hot and cold water	33 CFR 143.207 46 CFR 108.205(i)
.05 Ensure excess materials not stored	33 CFR 143.207 46 CFR 108.209
.06 Verify water closet and bathroom	33 CFR 143.207 46 CFR 108.205(i)

FMUE-GH05 - Examine arrangements in machinery and working spaces

.01 Verify operation of ventilation closures	MODU 09/9.15.1
.02 Verify remote shutdowns	MODU 09/9.15.2
.03 Verify fuel tank(s) shutoff valve operation	MODU 09/9.15.3
.04 Verify communications with navigating bridge	MODU 09/7.7

FMUE-GH06 - Examine storage of gas cylinders

.01 Verify permanent piping for oxyacetylene installation (when applicable)	MODU 09/9.17.1.1
.02 Examine gas cylinder storeroom(s) (when applicable)	MODU 09/9.17.1.2 MODU 09/9.17.1.3
.03 Verify storage of cylinders	MODU 09/9.17.1.2 MODU 09/9.17.1.6
.04 Verify process for removal of gas cylinders	MODU 09/9.17.1.4
.05 Verify warning signs	MODU 09/9.17.1.5

FMUE-GH07 - Examine hydrogen sulphide (sulfide) detection and alarm system

.01 Verify areas monitored	MODU 09/9.12.1
.02 Verify operation of audible and visual indicators	MODU 09/9.12.1
.03 Verify sufficient portable gas detectors	MODU 09/9.12.2

FMUE-GH08 - Examine means of escape

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

FMUE-GH09 - Avoid inadvertent entry into a confined space

- .01 Determine confined space(s) 29 CFR 1915, Part B
MSM I/10
- .02 Evaluate potential hazards MSM I/10 App. A
MSM II/G.1.J
- .03 Mitigate potential hazards 29 CFR 1915, Part B
MSM II/G.1.J
MSM I/10

Lifesaving Equipment Examination (LS)**FMUE-LS01 - Examine general emergency systems**

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

FMUE-LS02 - Examine rescue boat

- .01 Determine applicability 33 CFR 140.101
MODU 09/10.8-10.10
NVIC 03-88 Ch-1
- .02 Verify embarkation and launching arrangement MODU 09/10.10
- .03 Verify stowage MODU 09/10.9
- .04 † Verify dedicated rescue boat is provided 77 FR 70172
- .05 † Verify master is aware of 77 FR 70172 77 FR 70172 II(d)
- .06 Verify operating instructions are posted in the vicinity MODU 09/10.17
77 FR 70172 II(d)
- .07 Witness operation of engine MODU 09/10.18.7.2

FMUE-LS03 - Examine muster and embarkation stations

- .01 Determine applicability MODU 09/10.4
- .02 Examine muster and embarkation stations arrangements MODU 09/10.4.1, .2, .5 & .6
- .03 Verify embarkation ladders meet requirements MODU 09/10.4.7 & .8
- .04 Verify emergency lighting configuration and operation MODU 09/5.4.6.1
MODU 09/10.4.3 & .7
MODU 09/10.7.6
- .05 Verify emergency lighting testing requirements 46 CFR 109.213(d)(6)
MODU 09/14.12.2

FMUE-LS04 - Examine fixed metal ladders

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

FMUE-DP03 - Examine DP's thruster system(s)

- .01 Conduct meeting on test procedures Approved DP FMEA
Approved DP FMEA Proving Trials
77 FR 26562
- .02 Verify system meets stated classification MODU 09/4.13
IMO MSC/Circ. 645 2.2
Approved DP FMEA
IMO MSC/Circ. 645 3.3.1
- .03 Confirm thrusters are station keeping IAW WSOG
- .04 Witness standby thruster automatically comes on line IMO MSC/Circ. 645 3.3.2
- .05 Verify thruster(s) not in operation are at zero pitch and speed IMO MSC/Circ. 645 3.3.4
- .06 Verify manual thruster controls MODU 09/4.13
IMO MSC/Circ. 645 3.4.1.7

FMUE-DP04 - Examine DP's control systems

- .01 Conduct meeting on test procedures Approved DP FMEA
Approved DP FMEA Proving Trials
77 FR 26562
- .02 Witness automatic transfer of operational control to redundant control system Approved DP FMEA
IMO MSC/Circ. 645 3.1.4
- .03 Verify audible and visual alarms MODU 09/4.13
Approved DP FMEA
IMO MSC/Circ. 645 3.4.1.5
- .04 Review alarms records MODU 09/4.13
Approved DP FMEA
IMO MSC/Circ. 645 3.4.1.5
- .05 Verify arrangements to prevent failures from transferring from one system to another MODU 09/4.13
IMO MSC/Circ. 645 3.4.2.5
IMO MSC/Circ. 645 3.4.1.6
- .06 Verify operation of uninterruptible power supply MODU 09/4.13
Approved DP FMEA
IMO MSC/Circ. 645 3.4.2.7
- .07 Determine vessel position reference systems and sensors MODU 09/4.13
IMO MSC/Circ. 645 3.4.3-3.4.4
MTS DP Ops Guide 2/App 1.4.4
- .08 Witness operation of loss of position reference system and sensor alarms MODU 09/4.13
IMO MSC/Circ. 645 3.4.3-3.4.4

Dynamic Positioning Examination (DP)

FMUE-DP01 - Examine operational capabilities of Dynamic Positioning (DP) systems

- | | |
|--|---|
| .01 Determine equipment class | MODU 09/4.13 & IMO MSC/Circ. 645 2.2
77 FR 26562 |
| .02 Verify master is aware of voluntary guidance | MTS DP Ops Guide 2/App 1. 4.1
77 FR 26562 |
| .03 Verify Well Specific Operating Guidelines (WSOGs) | MTS DP Ops Guide 2/App 1. 4.8 & 4.11
CG-5PC Policy Ltr |
| .04 Verify System's Critical Activity Mode of Operation (CAMO) | MTS DP Ops Guide 2/App 1. 4.8 |
| .05 Verify records of DP incidents | MTS DP Ops Guide 2/App 1. 3.2, Table A, Item 10
MTS DP Ops Guide 2/App 1. 4.11 |
| .06 Verify presence of DP operating manual | MTS DP Ops Guide 2/App 1. 4.7
IMO MSC/Circ. 645 4
MODU 09/14.1.3.13 |
| .07 Verify initial, periodic and annual survey(s) | MTS DP Ops Guide 2/App 1. 4.2
IMO MSC/Circ. 645 5.1 |
| .08 Verify tests after modifications and non-conformities | MTS DP Ops Guide 2/App 1. 4.2
IMO MSC/Circ. 645 5.1.1.4 |
| .09 Verify Class Approved Failure Modes and Effects Analysis (FMEA) | MTS DP Ops Guide 2/App 1. 4.2
77 FR 26562 |

FMUE-DP02 - Examine DP's power management system

- | | |
|--|--|
| .01 Conduct meeting on test procedures | Approved DP FMEA
Approved DP FMEA Proving Trials
77 FR 26562 |
| .02 Verify power available in accordance with WSOG and CAMO modes | IMO MSC/Circ. 645 3.2.5
MTS DP Ops Guide 2/App 1. 4.8 |
| .03 Witness bus-tie breakers separate automatically and standby generator comes on line (when not latched up) | MODU 09/4.13
Approved DP FMEA
IMO MSC/Circ. 645 3.2.3 & .4 |
| .04 Verify system meets stated classification | MODU 09/4.3
IMO MSC/Circ. 645 3.2 |

FMUE-LS05 - Examine inflatable liferafts and davit launched arrangements

- | | |
|--|--|
| .01 Verify type approval | 33 CFR 140.101(e)
46 CFR 108.525/530/540
MODU 09/10.3.2-6 |
| .02 Verify liferaft capacity requirements | MODU 09/10.3.2, .3, .5, .6 |
| .03 Verify stowage | MODU 09/10.6
MODU 09/10.3.3, 10.5, 10.4.6
MODU 09/10.5, 10.4.6 |
| .04 Evaluate launching arrangements | 33 CFR 140.101(e)
46 CFR 109.213(d)(vii)
MODU 09/10.6.2, .6 & .7 |
| .05 Verify launching illustration and instructions posted | MODU 09/10.17 |

FMUE-LS06 - Examine lifeboats

- | | |
|---|--|
| .01 Determine applicability | MODU 09/10.3.1
LSA Code 4.6
77 FR 70172 II(b) |
| .02 Verify fire protection components and operations | MODU 09/10.5
MODU 09/10.18.1
LSA Code 4.8 & .9 |
| .03 Examine release gear(s) | MODU 09/10.7.1
LSA Code 8
IMO MSC.1/Circ. 1206/Rev.1 |
| .04 Verify instructions inside for release gear | MODU 09/10.17
LSA Code 4.7.6 |
| .05 Verify type approval | MODU 09/10.3.1
MODU 09/10.3.4
LSA Code 4.8 |
| .06 Verify stowage | MODU 09/10.6
46 CFR 109.301(f) |
| .07 Verify required equipment is present | MODU 09/10.6.1.4
LSA Code 4.4.8
MODU 09/10.18.6 |
| .08 † Determine rated capacity from data plate | 77 FR 70172 II(b) |
| .09 Verify instructions inside for release gear | MODU 09/10.17 |
| .10 Witness operation of engine | MODU 09/14.12.4 |

FMUE-LS07 - Examine boat davits

- | | |
|--|--|
| .01 Examine condition of davit(s) and associated components | MODU 09/10.18.1
SOLAS 09 III/20.2
LSA Code 8 |
| .02 Verify survival craft launching arrangement on column stabilized or self-elevating unit | MODU 09/10.17 |
| .03 Verify operator has unobstructed view during launching and recovery operations | MODU 09/10.7.5
MODU 09/10.7.2 |
| .04 Verify falls are of adequate length for survival craft to reach water | MODU 09/10.7.5 |

Firefighting Systems Examination (FF)

FMUE-FF01 - Examine areas for compliance with Structural Fire Protection (SFP) requirements

.01 Determine applicability	33 CFR 143.207 46 CFR 108.131 MODU 09/9.2
.02 Determine fire protection needed	46 CFR 108.133-.143 MODU 09/9-1 Table
.03 Verify SFP boundaries with fire control plan	46 CFR 108.131 MODU 09/9.2 SOLAS 09 II-2/9.2.3
.04 Ensure no unapproved SFP modifications	46 CFR 108.131 MODU 09/9.2 SOLAS 09 II-2/5.3
.05 Evaluate fire door(s) operation	46 CFR 108.133 MODU 09/9.2.9 & 9.2.10 IMO Res A.687(17)
.06 Verify multi-cable transits (MCT's) are compatible with fire boundary	46 CFR 108.131 MODU 09/9.2.4 MODU 09/9.3.13
.07 Verify ventilation closures are compatible with fire boundary	46 CFR 108.131 MODU 09/9.3.13
.08 Verify pipes/standoffs are compatible with fire boundary	46 CFR 108.131 MODU 09/9.2.4 MODU 09/9.3.13
.09 Verify no unapproved space modification(s) that would affect space categorization	46 CFR 108.131 MODU 09/9.1 MODU 09/9.2.5

FMUE-FF02 - Examine fixed fire detection and alarm system

.01 Verify operation	MODU 09/9.5 FSS Code 9.2.1.4 FSS Code 9.2.3.1.2 & .3
.02 Verify power sources	MODU 09/9.5 FSS Code 9.2.2
.03 Verify operation of alarms	MODU 09/ 9.5 FSS Code 9.2.5.1 IMO Res A.1021(26)

FMUE-FF03 - Examine flammable gas and alarm system(s)

.01 Verify areas monitored	MODU 09/9.11.1
.02 Verify operation of audible and visual indicators	MODU 09/9.11.1
.03 Verify sufficient portable gas detectors	MODU 09/9.11.2

FMUE-FF04 - Examine apparatus for recharging air cylinders

.01 Verify compressor is located in suitable location	MODU 09/ 9.14.2 & .6
.02 Verify compressor's emergency power source	MODU 09/9.14.1
.03 Verify air intake location and filtration	MODU 09/9.14.3 MODU 09/9.14.4
.04 Verify recharging capacity	MODU 09/9.14.5

FMUE-FF05 - Examine fire main system(s)

.01 Determine applicability	33 CFR 143.207 46 CFR 108.415 MODU 09/9.7
.02 Verify number of pumps	46 CFR 108.415 MODU 09/9.7.5
.03 Verify location(s)	46 CFR 108.417 MODU 09/9.7.1 & .2
.04 Verify remote start operation	MODU 09/9.7.6
.05 Verify pressure	46 CFR 108.421 MODU 09/9.7.3
.06 Verify relief valve installation	46 CFR 108.417 MODU 09/9.7.9
.07 Verify fire station arrangements	46 CFR 108.425 MODU 09/9.7.3 MODU 09/9.7.21 & .22
.08 Verify no connections other than ones necessary for fire fighting	MODU 09/9.7.15

FMUE-FF06 - Examine deluge system

.01 Confirm voluntary installation locations	77 FR 70172
.02 Confirm alternative arrangement (when applicable)	77 FR 70172
.03 Verify drill floor has adequate coverage for area	77 FR 70172
.04 Verify condition of nozzles and piping	77 FR 70172
.05 Verify access to system activation points	77 FR 70172
.06 Verify protection of components	77 FR 70172
.07 Verify on Fire Control Plan	77 FR 70172