



16711/OCS
D8(ocs) Policy Ltr 01-2016
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MEMORANDUM

From:  J.D. REYNOLDS, CAPT
D8 OCS OCMI

Reply to: CDR D. J. Martyn
Attn of: (ocs)

To: Distribution

Subj: INTERIM GUIDANCE ON LIFE EXTENSION (CONTINUED SERVICE)
REQUIREMENTS FOR FLOATING OCS FACILITIES

Ref: (a) 33 CFR 140.120, "Floating OCS Facilities" and 46 CFR 107.261 "Drydock or Special Examination"
(b) Marine Safety Manual Volume II, COMDTINST M16000.7B, Section G, Chapter 4, "Procedures Applicable to Floating OCS Facilities": Subsection C, "Standards," Subsection D, "Drydock Exam Requirements," and Subsection J, "In Service Inspection Plans (ISIPs)"
(c) D8(ocs) Policy Ltr 02-2016, "Structural Integrity Management (SIM) as an Alternative to Hull Inspection for Floating OCS Facilities"
(d) 33 CFR Part 140.15 "Equivalents and Approved Equipment," paragraph (a)

1. **PURPOSE:** This policy letter provides guidance on life extension (also referred to as "continued service") requirements for floating OCS facilities for Floating OCS Facilities in the Eighth District OCS Marine Inspection Zone defined in 33 CFR 3.40-5.
2. **BACKGROUND:** Floating offshore facilities on the OCS are originally designed to be operated for a predetermined number of years. Under references (b) and (c), the Coast Guard approves ISIPs, SIM programs and other plans required by references (a) and (b) taking into consideration a design life. As these facilities age equipment reconfigurations (including wells and production equipment) and modifications may increase risks that affect the facility's ability to safely perform its intended functions. This policy is intended to assist the Coast Guard and facility operators with ensuring a facility is safely operated beyond its original design life. The Coast Guard recognizes that requests for life extensions from operators will vary because of the uniqueness, complexity and history of the various facilities on the OCS. The Bureau of Safety and Environmental Enforcement (BSEE) shares Coast Guard concerns regarding operation of floating OCS facilities past their original design lives. To further encourage and support our partnership with BSEE in offshore safety, this document is intended to parallel the efforts of both agencies.
3. **POLICY:**
 - a. A floating OCS facility must be granted a life extension by the D8 OCS OCMI in order to operate facility beyond its original design life under ISIPs, SIM programs or other alternatives under reference (d). D8 OCS OCMI will consult with the Coast Guard

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Marine Safety Center, Bureau of Safety and Environmental Enforcement (BSEE) GOM Region, and classification society (or other Coast Guard accepted third party), before granting a life extension.

- b. Life extensions will be aligned with the facility's Certificate of Inspection (COI); a new COI will be issued at the beginning of operation beyond the facility's original design life. For life extensions longer than five years, operators shall include a plan for periodically re-evaluating the facility's fitness-for-purpose. The periodic re-evaluation plan should revisit the survey items, assessments, and analyses detailed in this section. The D8 OCS OCMI will review the results of periodic re-evaluations to determine if the facility can continue its approved life extension and remain eligible for renewed COIs.
- c. Enclosure (1) provides a recommended process flow chart for obtaining OCS OCMI approval for a service life extension.
- d. After a life extension is requested, the D8 OCS OCMI will assign a project officer who will serve as the point of contact (POC) for Coast Guard review of the request. Operators (requestors) are responsible for scheduling meetings with the Coast Guard POC, BSEE representatives, and other stakeholders.
- e. The operator shall summarize surveys/inspections performed over the past five years by the classification society/Coast Guard. The Coast Guard will also review facility history in the Marine Information for Safety and Law Enforcement (MISLE) database. The Coast Guard and/or BSEE may require a baseline structural, machinery, and stability survey of the facility, preferably reviewed and approved by either the classification society or Certified Verification Agent (CVA - see 30 CFR Part 250.914). The operator should be as thorough as possible when conducting the baseline survey as this is critical and will serve as the basis for future additional requirements. Items that should be included in the baseline survey are:
 - (1) Main and critical steel members and joints, including current structural critical inspection points (SCIPs), any identified structural material/fabrication defects, crane structures, lifeboat davits, and supporting structures for helideck and topside modules;
 - (2) Piping and valves for critical marine systems including ballast, bilge, venting, soundings, and firefighting systems;
 - (3) Critical machinery/electrical systems including fire pumps, emergency power, sensors, and alarms;
 - (4) Corrosion protection systems, including structural cathodic protection (internal, external, and mooring systems) and coatings;
 - (5) Personnel access and egress including walkways, gratings, and handrails;
 - (6) Mooring system attachments to the hull (for Tension Leg Platforms, include tendons and tendon tension monitoring systems).

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The D8 OCS OCMI may require additional survey items based on any unique or novel design features.

- f. The baseline survey report should include fitness-for-service documentation from the original equipment manufacturer (OEM) or authorized service agents for fire pumps, davits, and cranes verifying they are able to continue in service. If the OEM or authorized servicing agent recommends actions to maintain this equipment in service, the operator shall perform these recommendations to the OEM's or authorized servicing agent's satisfaction and provide documentation to the OCMI. The OCMI may inspect for verification or accept confirmation from a classification society or other third party.
- g. In addition to the baseline survey, the operator should be prepared to perform an engineering evaluation and risk assessment for the facility. Items in this study should include:
 - (1) Weight additions for the life of the facility and any changes in stability;
 - (2) Detailed comparison of the facility's original met-ocean design criteria compared to the most recent met-ocean design criteria;
 - (3) Detailed fatigue and strength analyses of main and critical steel members and joints, including current structural critical inspection points (SCIPs), any identified structural material/fabrication defects, crane structures, lifeboat davits, and supporting structures for helideck and topside modules;
 - (4) Global structural and stability analysis of changes or additions to equipment or structures to the facility and its affects;
 - (5) Documentation of any significant repairs, incidents, weather events, and critical equipment changes for the facility;
 - (6) Frequency of future topside, ISIP (or SIM), and UWILD inspections and changes in SCIPs;
 - (7) Verification of corrosion/wastage targets (and correlate with structural cathodic protection performance);
 - (8) For Tension Leg Platforms (TLPs) - evaluation of suitability of tendons and tendon tension monitoring system (TTMS) along with moorings reviewed and approved by a classification society or CVA (see paragraph 3.j); and
 - (9) Report depicting BSEE's review and approval of items under their jurisdiction.

The D8 OCS OCMI may require additional assessment items based on any unique or novel design features. This engineering evaluation and risk assessment may be requested in parallel with the baseline survey, or as follow-up to issues identified in the baseline survey.

- h. The operator should submit mitigation and repair plans (if necessary) for problems identified in the baseline survey and risk assessment to the Coast Guard. Any mitigation or repairs should be reviewed and approved by the classification society (if applicable) and the Coast Guard.

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- i. Following completion of the baseline survey, risk assessment, and mitigation and repair plan, the operator shall update all applicable procedures to the facility. The operator shall also update the facility's Marine Operations Manual and ISIP (unless using a Coast Guard accepted SIM program), and submit to the Coast Guard for review and approval. Any applicable plans required by BSEE or the classification society shall be submitted accordingly. This update shall include a plan for providing periodic progress updates to the D8 OCS OCMI.
 - j. **Additional considerations for TLPs.** TLP tendons are essential to the facility's stability. Baseline surveys shall include a complete inspection and thorough evaluation of the integrity of all tendon porches, top connectors, tendons, bottom connectors, and their foundations. Tendon surveys should be completed to the satisfaction of BSEE and (in areas that directly affect TLP stability) the Coast Guard. Inoperative tendon tension monitoring systems or incomplete/missing TTMS data will be cause for additional scrutiny; in this circumstance the D8 OCS OCMI may require the TLP operator to prepare an engineering analysis to demonstrate the fitness-for-purpose of tendons systems that directly impact TLP stability.
 - k. Following approval for life extension by the D8 OCS OCMI, the facility shall continue to be maintained as before the life extension. All regulatory requirements will remain in effect, including the approved ISIP or SIM if accepted by the D8 OCS OCMI as per reference (a).
4. **POINT OF CONTACT:** Questions regarding this policy may be directed to the Eighth District OCS staff at (504) 671-2268.

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Encl: (1) Life Extension Review Process Flow Chart

Dist: Sector Mobile
Sector New Orleans
MSU Morgan City
Sector Houston/Galveston
MSU Port Arthur
MSU Texas City
Sector Corpus Christi

Copy: COMDT (CG-CVC)
Marine Safety Center
OCS National Center of Expertise
D8(dp)
BSEE GOM Region
Offshore Operators Committee

Life Extension Review Process Flow Chart

