National Offshore Safety Advisory Committee (NOSAC)

FINAL REPORT AND RECOMMENDATIONS

NOSAC Task Statement of April 26, 2022 – REVIEW OF COAST GUARD'S FINAL REPORT ON THE FLOATING OCS FACILITY – TENSION LEG PLATFORM FPS AUGER LIFEBOAT FALL WITH LOSS OF LIFE ON JUNE 30, 2019 – Published on December 16, 2021

Executive Summary

This Task Statement was based on a recommendation made in the August 2020 NOSAC report "Lifeboats and Rescue Craft Safety on the Outer Continental Shelf" (hereinafter referred to as the **2020 Report**) - specifically, recommendation 9 which is part of Task 6:

"The USCG should issue a Task Statement to the NOSAC to evaluate the USCG's investigation report for the 2019 fatal lifeboat incident in the GOM when it is available. The purpose of this evaluation would be for the industry to provide feedback on the findings, conclusions, and recommendations."

Planning and Deliberation

To facilitate the discussion and resulting collection of information needed to complete this report, Subcommittee meetings commenced in June 2022 and took place periodically as detailed below. All meetings were conducted over Zoom vice in-person.

The suggestions, recommendations, and input of the Subcommittee were compiled by the Co-Chairs and incorporated into a draft working document. This draft was accessible via Google Drive (hosted by the Offshore Operators Committee) and circulated via email amongst all subcommittee members for further input and revision leading to a final draft.

Conduct of Work

26 APR 2022	Task Statement issued by USCG, and Subcommittee stood up by NOSAC
14 JUN 2022	1st Teleconference - 31 participants
25 AUG 2022	2nd Teleconference - 34 participants
29 SEP 2022	3rd Teleconference - 24 participants
04 NOV 2022	4th Teleconference - 22 participants
02 FEB 2023	5th Teleconference - 19 participants

The Subcommittee Chairs specifically wish to thank the Offshore Operators Committee (OOC - https://www.theooc.org/) for its support of this effort and willingness to host the teleconference meetings via Zoom and working draft in Google Drive. In addition, we had excellent representation from the original equipment manufacturers (OEMs), notably: Palfinger, Alexander-Ryan, Fassmer, Viking, Survival Systems International (SSI), and Survitec. Virtual Marine Technology (VMT) of Canada, Offshore Petroleum Industry Training Organization (OPITO), International Association of Drilling Contractors (IADC), American Petroleum Institute (API), Marshall Islands Registry, Det Norske Veritas (DNV-GL) and MSTC-Lafayette also participated in the meetings. The participation, expertise, and perspectives of these individuals and the rest of the Subcommittee members is greatly appreciated and provided an invaluable contribution to the development of this report.

Related Activities

There were other efforts taking place during the deliberation of this Task Statement worth mentioning as they are related to the issue of advancing lifeboat safety on fixed and floating Outer Continental Shelf (OCS) facilities.

- Revision of OOC Guidance Documents: the legacy "Alternatives to Lifeboat Loading" and "Alternatives to Lifeboat Launching" are being consolidated into one document, revised, and updated. *(Note: this effort is still ongoing)*

- Safer Together Guidance: Safer Together (Safer Together - Natural Gas Exploration & Production Industry Safety) is a "*not-for-profit, Australian-based, member-led organization of Oil and Gas Exploration and Production Industry Operating Companies and Contract Partner Companies committed to creating the leadership and collaboration needed to build a strong and consistent safety culture in our rapidly evolving industry*." Based on the 2019 fatal lifeboat accident in Gulf of Mexico (GOM), Safer Together conducted a comprehensive risk assessment for lifeboat/rescue boat operations in their region in 2020 which led to the development of an industry guidance document. This guidance was published in November 2022. All information is accessible here: Guideline to Manage Offshore Survival Craft Operations Launched! - Articles - Articles | Safer Together - Natural Gas Exploration & Production Industry Safety

- OCIMF/IOGP/OPITO effort: The Oil Companies International Marine Forum, International Association of Oil and Gas Producers, and Offshore Petroleum Industry Training Organization are working with members from several offshore operating companies across the globe to develop an Information Paper related to lifeboat and rescue craft safety and guidance for offshore platforms and other installations (i.e., Floating Production, Storage, and Offloading [FPSOs]).

Recommendations

Recommendations and other supporting information relevant to the tasks in the Task Statement will be detailed in the following Main Report. This report, its findings, and recommendations reflect the consensus of the Subcommittee *unless indicated otherwise*. This report is respectfully submitted for acceptance by the NOSAC.

Warren Weaver

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Warren Weaver, Co-Chair

Eric Roan

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Eric Roan, Co-Chair

Chris Woodle

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Chris Woodle, Co-Chair

MAIN REPORT – Task Statement Description and Overview

Task Title (from the Task Statement)

"Review the accident investigation report on the lifeboat casualty on the Shell Auger TLP that resulted in loss of live [sic]."

Background (from the Task Statement)

"The Coast Guard is seeking the assistance of the National Offshore Safety Advisory Committee (NOSAC) in reviewing the USCG issued Final Report concerning the June 30, 2019, lifeboat accident on the Shell Auger TLP and the recommendations in this report to identify those areas where NOSAC is strategically positioned to advise the Coast Guard on regulations or policies that could be modified or updated to better enhance the safety of lifeboat operations on OCS units. The Committee should also review the 2020 final report on lifeboat safety issued by the discretionary National Offshore Safety Advisory Committee to see if any of those recommendations should be updated based on any new information found in the Shell Auger Final Report."

As mentioned in the Executive Summary, the impetus for this Task Statement was based on Recommendation 9 in Task 6 of the 2020 Report. Unlike the Task Statement for the 2020 report, the Task Statement for this report did not benefit from input from the Committee during its development. It is recommended that all future Task Statements issued to the NOSAC be socialized with the Committee for collaborative input so that the resultant product is unambiguous and minimizes the re-solicitation of similar information provided in previous NOSAC reports. Noting further that the USCG has received comments from the committee previously in relation to a similar task statement. Any update on actions related to those comments would be useful in providing further recommendations to this task statement.

USCG Auger Report of Investigation (ROI) Timeline

- June 30, 2019 - date of incident
- July 25, 2019 - USCG District Eight (D8) convened a Formal Marine Casualty Investigation into the incident (initial investigation effort was lower level).
- July 13, 2020 - the Investigating Officer (IO) issued the report to D8.
- November 4, 2020 - The D8 Commander issued comments and endorsements on the recommendations made by the IO in the report. The Report of Investigation (ROI) was forwarded to USCG Headquarters and the Office of Investigations and Casualty Analysis (CG-INV).
- December 16, 2021 - CG-INV issued the full ROI; however, the Commandant's response to the recommendations in the IO report (Action by Commandant) were not issued. CG-INV stated the responses would be "documented separately". This Action by Commandant is still outstanding as of the date of this report.
- December 17, 2021 - The USCG Blog "Maritime Commons" posted a note about the Auger ROI and solicited feedback on the ROI recommendations. The feedback was due to CG-INV by February 1, 2022. Closure and posting of the SHELL AUGER LIFEBOAT NO. 6 investigation – Maritime Commons (coastguard.blog)
- February 1, 2022 - The OOC, via its Marine Safety and Security Subcommittee, generated comments on the Auger ROI based on this CG-INV solicitation. The OOC's comments are referenced and included as part of this report as they represent the consensus of the production operators in the Gulf of Mexico (GOM). Other parties provided comments to CG-INV, and a list of all comments (names redacted) are accessible at the Spring 2023 Meeting site on Homeport.
- April 26, 2022 - The USCG issued the Task Statement for this Report.

Review of the 2020 Report

Part of the Task Statement Background statement requested the Subcommittee review the 2020 Report. The 2020 Report was a comprehensive analysis of the unique risks and challenges faced by offshore platform operators relative to periodic lifeboat testing and how to best accomplish this testing considering their remote locations, lack of protection, design, and other criteria. The 2020 report exhaustively highlighted practices in other offshore locations (outside the U.S.) that largely focused on testing alternatives vice the traditional launch and recovery method that was commonplace in the GOM. The report also highlighted at least one other casualty investigated by the USCG (Glomar Java Sea, 1985) where the Investigating Officers specifically made recommendations to pursue alternatives to testing as the hazards and increased risk of doing this offshore was highlighted in the investigation of that incident. Given the above, and the fact that the USCG was involved in the 2020 Report, the Subcommittee is curious why the Auger ROI does not recommend or mention the use of testing alternatives or reference IMO MSC.1/Circ. 1486?

The Subcommittee believes USCG missed a critical opportunity to take the holistic approach necessary to effectively address the issue of how to maintain equipment readiness and operator competency without introducing other unnecessary risks. The USCG should have used some of the recommendations and other information raised in the 2020 Report to help develop their investigative effort and the resultant Auger ROI. The intent of any marine casualty investigation is to *"prevent a future reoccurrence"*. Evaluating approved alternative testing and competency assurance protocols used elsewhere could have prevented the fatalities and possibly the failure that led to them on the Auger TLP.

There are over 60 recommendations made in the 2020 Report. The Subcommittee did not feel any of the recommendations in the 2020 Report needed to be revised as a result of the recommendations made in the Auger ROI. To date, the USCG has not provided the Committee with any feedback (i.e., Action Memo) on the recommendations in the 2020 Report.

Other OCS Units

The Task Statement references "OCS units". The term "OCS units" or, more specifically, the term "unit" as defined in 33 CFR §140.10 means: *"any OCS facility, vessel, rig, platform, or other vehicle or structure, domestic or foreign".* The focus of this report and the 2020 Report, however, is on the need to mitigate the unique challenges and risks associated with appropriately testing lifeboats and their associated equipment on floating OCS facilities (FOFs) and manned (fixed) platforms.

U.S. and foreign flagged vessels can launch/recover their lifeboats (as required) in port or protected waters, thereby reducing the risk of conducting this activity in an exposed location. U.S. and foreign flagged Mobile Offshore Drilling Units (MODUs) can take advantage of IMO MSC.1/Circ. 1486 and may have alternative testing protocols approved by their respective Administrations. Both vessels and MODUs also benefit from a clear regulatory framework relative to mariner training and credentialing (via national regulation and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers [STCW]).

References

2020 NOSAC Report: Meeting page: Content - September 30, 2020 Video Teleconference Meeting... (uscg.mil). Link to Report: NOSAC 2019 LB TS.FINAL.Aug11.2020.pdf (uscg.mil)

USCG Auger ROI: https://www.dco.uscg.mil/OCSNCOE/Accidents-Investigations/Auger-LB6/

Subcommittee Deliberation on Tasks – Findings and Recommendations

TASK NUMBER 1

Form a subcommittee to review the Shell AUGER Final Report; existing Coast Guard policies related to lifeboat safety and examination; related NVICs and regulations; and recommend changes to them as tasked by the Designated Federal Officer. This review should also include industry standards that have been incorporated by reference. The subcommittee should:

a. Review CG existing policy letters, NVICs, Commandant Instruction Manuals, and regulations that are applicable to the operation, maintenance, and testing of lifeboats on OCS units operating on the U.S. OCS and propose recommended changes.

b. Review the Final Report's recommendations and identify areas where NOSAC's expertise could be utilize [sic] to assist the USCG with updating industry standards, USCG policies and or regulations that could be used to enhance lifeboat safety.

c. Review current and advancing technologies and industry operations and propose new regulations where gaps may exist respective to lifeboat safety.

Response

Task 1.a.

The Subcommittee believes this Task has already been addressed in the 2018 (Regulatory Reform) and 2020 NOSAC reports. All existing CG policy letters, NVICs, Commandant Instructions (i.e., Marine Safety Manual, Vol. II), and regulations that are "applicable to the operation, maintenance, and testing of lifeboats on OCS units operating on the U.S. OCS" were highlighted, addressed, and comments/recommendations made where appropriate. Specifically, the 2020 Report identified these recommendations in Tasks 1 and 4.

The Subcommittee again recommends in the 2020 Report that **D8 Policy Letter 01-2020** (published May 19, 2020) either be revised or canceled. This Policy Letter was addressed, and the related recommendation was made in the 2020 Report, Task 4, Recommendation 19:

"The Subcommittee does not agree with the USCG's overly broad interpretation of 33 CFR 146.125(c)(1) as requiring an annual launch of lifeboats. A reasoned reading of this cite and the rulemaking that promulgated it implies "elements" (no definition provided) of an EEP must be "exercised" but the regulation is not explicit as to the "how" this has to be accomplished. It is evident from the protracted Subchapter N rulemaking effort that explicit operational requirements for the periodic launching of lifeboats was intended to be covered by the 1999 Proposed Rule. As a comparison, regulations in 46 CFR 109 (which does not apply) and SOLAS are explicit regarding the launch of a lifeboat and its operation in the water. Using the logic of this interpretation it would also imply that operators should be conducting a full evacuation of personnel via lifeboat and this is something that has never been done, nor would be contemplated. The policy also says the "default" method for complying with their interpretation is to lower and launch lifeboats but this ignores the fact suitable alternatives can be implemented to achieve the same outcomes of testing the equipment and ensuring operator competency. The policy letter does reaffirm the ability of an operator to submit alternatives as already stated in 33 CFR 140.15; however, in that an actual requirement that is explicit as to a launch requirement does not exist, it then becomes an issue of

"alternative to what?". The use of OEM approved alternatives that tests the equipment and a program of initial and periodic refresher training on like for like (or substantially similar) equipment designed to maintain competency is strongly recommended over the "default" method of lowering, launching, and recovering lifeboats. Adoption of these alternatives would meet the regulatory intent already evident in Subchapter N to keep lifesaving equipment in "good" condition and to have "trained" personnel."

Recommended Changes to Regulations/Policy:

Specific to this part of Task 1.a., the Subcommittee offers suggested verbiage the USCG could use in a revision to 33 CFR Subchapter N, or any other related policy guidance intended to clarify the regulatory intent in Subchapter N.

As currently stated in 33 CFR Subchapter N:

§146.15 Maintenance of emergency equipment.

*(a) The emergency equipment provided, regardless of whether or not required by this subchapter, shall be maintained in **good** condition at all times. Good operating practices require replacement of expended equipment, as well as periodic renewal of those items which have a limited period of effectiveness.* (Emphasis added)

The USCG needs to establish what *"good"* means. The Subcommittee recommends the following revised cite or definition for use in policy guidance:

The emergency equipment provided, regardless of whether or not required by this subchapter, shall be maintained in accordance with approved OEM maintenance and testing procedures. Alternatives to in-water testing shall be approved by the respective equipment OEM. OEM attestation via annual and 5-year servicing reports as well as proof of operator compliance with OEM approved procedures are indications the equipment is fit for service.

As currently stated in 33 CFR Subchapter N:

§146.120 Manning of survival craft.

The owner, the owner's agent, or the person in charge shall assign a person to each life float, lifeboat, life raft, or survival capsule who shall be responsible for launching it in event of an emergency.

More clarity regarding what *"responsible"* means is needed, especially since the USCG is no longer issuing Merchant Mariner Credentials (MMCs) for Floating OCS Facility (FOF) marine crew in accordance with CG-MMC Policy Letter 01-22 (published February 4, 2022). The Subcommittee recommends the following revised cite or definition for use in policy guidance:

The owner, operator, or the person in charge shall assign a person to each life float, lifeboat, life raft, or survival capsule who shall be responsible for launching the appliance in event of an emergency. Each person responsible for launching a lifeboat or survival capsules shall be certified as such by a recognized certification body or shall be certificated as such upon completion of an appropriate training course provided by a recognized training organization or certification body. The owner or operator shall have company policy regarding the training, certification, and periodic competency assurance for persons in charge of operating the various types of survival craft.

As currently stated in 33 CFR Subchapter N:

§146.125 Emergency drills.

(a) Emergency drills shall be conducted at least once each month by the person in charge of the manned facility. The drill shall be conducted as if an actual emergency existed. All personnel should report to their respective stations and be prepared to perform the duties assigned to them.

More clarity around the intent of *"conducted as if an actual emergency existed"* is required as this can lead to widely different interpretations. The Subcommittee recommends the following revised cite or definition for use in policy guidance:

Emergency drills shall be conducted at least once each month by the person in charge of the manned facility. The drill shall be conducted as if an actual emergency existed; however, this does not necessarily require the full deployment or exercising of the emergency equipment involved. All personnel must report to their respective stations and be prepared to perform the duties assigned to them.

As currently stated in 33 CFR Subchapter N:

§146.125 Emergency drills.

*(b) **Emergency evacuation drills.** The following emergency evacuation drills must be conducted:*

(1) At least once a year, all the elements of the Emergency Evacuation Plan (EEP) under § 146.140 relating to the evacuation of personnel from the facility must be exercised through a drill or a series of drills. The drill(s) must exercise all of the means and procedures listed in the EEP for each circumstance and condition described in the EEP under § 146.140(d)(9).

(2) At least once a month, a drill must be conducted that demonstrates the ability of the facility's personnel to perform their duties and functions on the facility, as those duties and functions are described in the EEP. If a standby vessel is designated for that facility in the EEP, the vessel must be positioned as described in the EEP for an evacuation of that facility and the vessel's crew must demonstrate its ability to perform its duties and functions under the EEP.

During the USCG's rulemaking effort for Emergency Evacuation Plans (EEPs), official definitions for "elements" and "exercised" were not provided and, thus, have been subject to various interpretations. The Subcommittee recommends the following revised cite or definition for use in policy guidance:

(1) At least once a year, all the elements of the Emergency Evacuation Plan (EEP) under §146.140 relating to the evacuation of personnel from the facility must be exercised through a drill or a series of drills. Elements refer to components of the EEP relating to means of evacuation. Exercising these elements may be satisfied by execution of actual platform abandonment procedures (i.e., in advance of a hurricane), table-top exercises, and proof that other equipment listed in the EEP as a means of evacuation is maintained in accordance with OEM approved procedures and annually certified by the OEM or a service maintainer recognized by the OEM.

(2) At least once a month, a drill must be conducted that demonstrates the ability of the facility's personnel to perform their duties and functions on the facility. Compliance with §146.125(a) satisfies this requirement.

Task 1.b.

As mentioned in the ROI Timeline (above), the USCG via their CG-INV office made a specific solicitation for comments from the public and industry on the recommendations made in the ROI. As part of this Task Statement and Report, the DFO provided the Subcommittee with all the comments CG-INV received as part of this solicitation. The OOC was one entity that commented, and their comments reflect the consensus of U.S. OCS Platform operators. The OOC letter and list of specific comments and recommendations are attached to this report. The entire list of redacted comments will be included on the NOSAC Homeport site for the March 2023 meeting. It is requested that the USCG/CG-INV provide feedback on these comments and that the Action by Commandant for the Auger ROI be provided.

Certain recommendations made by the IO in the Auger ROI support the development of a "working group or work group" to address aspects of lifeboat safety and the regulations and policy to support it. Specifically, the references to "working groups" or "work groups" are made in Recommendations 1, 5, 6, and 10. Of note, Recommendation 10 supported USCG engagement with other administrations (i.e., offshore regulators) to learn more about how they manage equipment testing, drills/competence, and maintenance. The Subcommittee is not aware of any action the USCG has taken regarding these recommendations. Should the CG pursue the development of working groups to address the recommendations in the Auger ROI, the expertise of the NOSAC membership should be utilized as part of those efforts. Additional industry perspective valuable to these efforts should also be sought from the segments of industry affected (i.e., OOC, International Association of Drilling Contractors [IADC], International Marine Contractors Association [IMCA], Offshore Marine Service Organization [OMSA], etc.).

Industry Standards

This task also references Industry Standards and, specifically, Industry Standards that have been incorporated by reference in USCG regulations related to the testing and maintenance of lifeboats on USCG inspected vessels/facilities. The Subcommittee is not aware of any Industry Standard being incorporated by reference in this regard assuming "Industry Standard" means the same thing as a standard developed and promulgated by a recognized standards entity (e.g., ISO, API, ANSI, etc.). The Subcommittee is aware of guidance that has been published in other offshore areas; however, this has been done through Trade Groups (or similar).

To the extent that industry publications can be instructive and help promote lifeboat and rescue craft safety on the U.S. OCS, the Subcommittee highlights the following:

1. Offshore Operator Committee (OOC) Guidance Documents. There have been two Guidance Documents developed by the OOC in the last five years. One provides for "Alternatives to Lifeboat Loading" and the other provides for "Alternatives to Lifeboat Launching". In late 2022, the OOC started work to consolidate both Guidance Documents into one document and revise it to reflect guidance in CG-MMC Policy Letter 01-22. This guidance can be voluntarily implemented by OOC members. *(Note: this effort is still ongoing)*
2. **Safer Together (Australia) – Managing Survival Craft Operations at Offshore Facilities Guideline.** This Guideline was published in November 2022 and is discussed/linked above. Worth highlighting here is a section in the Introduction and Background part of this Guideline (page 5):

   "Understanding the hazards and risks—and how to manage them with appropriate safeguards—is necessary to safely and effectively operate, test, and maintain survival craft. The aim of this

Guideline is to reduce the potential for accidents by minimising and, where appropriate, eliminating exposure of personnel to those hazards and risks when operating, testing, and maintaining survival craft, and during personnel transfer to and from those craft during such activities.

The International Convention for the Safety of Life at Sea (SOLAS; Ref. 1) sets minimum safety standards for constructing, equipping, and operating merchant ships and the lifeboats on those ships. However, SOLAS does not define design, maintenance, and testing requirements for lifeboats used on offshore facilities such as oil and gas platforms, despite its guidance being commonly used for escape, evacuation, and rescue activities on these facilities. ***Offshore facilities are not ships, nor are they crewed by maritime crew.****" (Emphasis added)*

Therein lies the quandary for platform operators in the U.S. OCS. The disparity in regulatory framework for fixed and floating facilities is that the USCG applies (certain) vessel-based regulations to floating facilities - which are not vessels – and this was comprehensively detailed in the 2020 Report. It is recommended that platform operators be allowed to submit proposals for alternatives relative to numbers of lifeboats, capacity, arrangement, life rafts, and rescue boats under 33 CFR §140.15 "Equivalents and Approved Equipment". A proposal from an operator should be supported by an Evacuation, Escape, and Rescue Assessment (EERA). For example, an EERA could be used to:

- Justify lower numbers of lifeboats (i.e., less than 200% capacity)
- Make the requirement for life rafts optional (for FOFs)
- Make the requirement for a rescue boat optional (for FOFs)

Task 1.c.

This task was discussed during the fourth meeting of the Subcommittee. The Subcommittee benefitted from the active participation of several equipment OEMs during the deliberation of this Task Statement. What became clear, however, is that there is not complete alignment with the OEMs on the issue of implementation of alternatives for in-water testing (i.e., traditional launch and recovery). Some OEMs are more progressive, while others take a more conservative approach. Regardless, the owner and end-user of this equipment is the platform operator, and that operator is obligated to assess and appropriately mitigate any identified and associated risks with testing this equipment to a level that is as low as reasonably practicable (ALARP). Part of this assessment may involve the use of a Hierarchy of Controls (https://www.cdc.gov/niosh/topics/hierarchy/default.html) whereby "Substitution" of alternative testing protocols is the most practical risk-reduction measure available. Operators are also bound to 33 CFR §142.4:

§142.4 Duties of lessees, permittees, and persons responsible for actual operations.

(a) Each holder of a lease or permit under the Act shall ensure that all places of employment within the lease area or within the area covered by the permit on the OCS are maintained in compliance with workplace safety and health regulations of this part and, in addition, free from ***recognized hazards****. (Emphasis added)*

(b) Persons responsible for actual operations, including owners, operators, contractors, and subcontractors, shall ensure that those operations subject to their control are conducted in compliance with workplace safety and health regulations of this part and, in addition, free from recognized hazards.

(c) ***"Recognized hazards"****, in paragraphs (a) and (b) of this section, means conditions which are -*

(1) ***Generally known among persons in the affected industry as causing or likely to cause death or serious physical harm to persons exposed to those conditions****; and*

(2) ***Routinely controlled in the affected industry****.* (Emphasis added)

Given the number of incidents and "near-misses" that have occurred during the "routine" testing of lifeboats on offshore facilities and on merchant vessels over the years, it is understandable that an operator could easily view this activity as a "recognized hazard" and want to implement practical mitigations to reduce the risk as much as possible. Alternative equipment testing and competency assurance protocols that achieve the same objectives as traditional, periodic in-water testing have been proven in other offshore areas and should be implemented in the U.S. OCS by operators who desire to reduce the risks associated with this activity.

New technologies

During the deliberation of this Task, the OEMs were queried about any new technologies they may have developed or are in the process of developing to enhance lifeboat safety. Nothing radically new regarding lifeboat design was identified; however, the OEMs mentioned the following:

- Electric lifeboats – Electrically propelled lifeboats vice diesel powered. The 24-hour run time for USCG approval is still a challenge and none are currently approved by the USCG.
- Hook monitoring system – One OEM mentioned their hook monitoring system which provides a remote visual (light) indication to the operator of the winch/davit that hooks are properly set.
- Remote monitoring system – another OEM mentioned they are developing a remote monitoring system that is currently being tested and allows one to start the capsule engine, check fluids, etc.

Recommendation 1 from the 2020 Report given in Task 3 is important to note:

Manufacturers of lifeboats for offshore applications, which can only launch them in open water, should design lifeboats and lifeboat systems that do not need to be launched to water to test the equipment. The boats should be designed and fitted with everything necessary to accomplish this testing in the davit (in-situ) and the accompanying OEM approved maintenance procedures should reflect this.

Use of simulators to support training and competency development

Task 5 in the 2020 Report contains recommendations (5 and 6) relative to this topic and for the USCG to develop relationships with other offshore regulators where these recommendations have been implemented (e.g., Canada). Again, absent any USCG regulatory or policy guidance related to this issue, Operators are strongly recommended to implement simulation-based technologies as part of their competency development/assurance plans.

Proposal of new regulations

Part of this task also asked to propose new regulations relative to lifeboat safety. Please see the suggested verbiage that can be used to revise regulations or create policy guidance offered in **Task 1.a.** above.

Recommendations

1.1 NOSAC recommends that USCG D8 either revise or cancel its Policy Letter 01-2020 published on May 19, 2020. If Policy Letter 01-2020 is to be revised, NOSAC recommends that D8 solicit input from the regulated population it will affect.

1.2 NOSAC recommends that the USCG use the suggested verbiage offered as part of Task 1.a. for use in any regulatory revisions they may take regarding the cites highlighted or for policy guidance that clarifies how they will implement and enforce the cites highlighted. NOSAC does **not** recommend the USCG develop any regulations or policies that stipulate or support a more prescriptive approach by the USCG regarding lifeboat testing and maintenance and operator competency development and assurance. Lifeboat testing and maintenance guidance should be left to the relevant equipment OEM. Training and competency should be developed and managed by the operator of the offshore facility.

1.3 NOSAC requests that the USCG/CG-INV provide feedback on the comments they received as part of their solicitation for feedback after the release of the Auger ROI, specifically, those from the Offshore Operators Committee (letter dated February 1, 2022).

1.4 NOSAC requests that CG-INV publish the Action by Commandant for the Auger ROI.

1.5 NOSAC requests that the USCG provide an update relative to any actions they have taken regarding the recommendations made in the Auger ROI, specifically, those that address the use of "working groups". Should the USCG develop any working groups to address the recommendations made in the Auger ROI, NOSAC recommends that these working groups also be comprised of industry or relevant trade group representatives.

1.6 NOSAC recommends that the USCG address the use of simulator-based technology as a means to support competency development and assurance. Absent USCG regulation or policy guidance, operators are encouraged to implement simulator-based technologies as part of their overall competency development and assurance plans.

References

2018 NOSAC Report (Regulatory Reform): NOSAC CG Reg Reform-Production-FINAL.20180315.pdf (uscg.mil), Amended report submitted at the Fall 2018 Meeting: NOSAC.Production.RegReform.Sep2018.FINAL.signed.pdf (uscg.mil)

TASK NUMBER 2

The reviews should be done on a cyclical basis as established by NOSAC.

Response

The NOSAC Designated Federal Official (DFO) later clarified that this Task was made in error, so this Task was disregarded by the Subcommittee.

TASK NUMBER 3

Provide any additional recommendations that the subcommittee believes are relevant to this tasking.

Response

The Subcommittee deliberated this Task at their fourth teleconference call. The following recommendations are detailed and offered for consideration.

USCG Safety Alert Effectiveness

Recent Safety Alerts issued by the USCG relative to USCG Type-approved lifesaving equipment and/or appurtenance failures have been extremely slow to develop and delayed in their release. Specifically, Safety Alerts 08-21 and 03-22 contained information that would have been more useful to the affected industry had they been released much sooner than they were.

The USCG Marine Safety Manual (MSM), Volume V (COMDTINST M16000.10A) is the national USCG policy guidance relative to conducting Marine Casualty Investigations and discusses Safety Alerts in Chapter Six. Per this guidance, the stated purpose of a Safety Alert is:

*"…to **quickly** advise the public of conditions that, if left unaddressed, pose urgent threats to safety in fleets of vessels or particular types of operations and propose voluntary actions for elimination or mitigation of those threats."* (Emphasis added)

The MSM states the following about the sources of Safety Alerts:

"Safety alerts originate primarily from marine casualty investigations completed by Coast Guard Marine Boards and Investigating Officers (IOs). However, the issuance of a safety alert will be considered based upon its merits regardless of its source."

While NOSAC recognizes that the USCG must be careful about any message conveyed and address legitimate legal considerations, NOSAC also suggests that several months (or even years) post-incident significantly erodes the intent of the message, especially if enough information is known that can be shared to help raise awareness of an issue and prevent another reoccurrence. NOSAC understands that these messages must be balanced; however, when there are issues involving failures of lifesaving equipment, NOSAC recommends the USCG take a more proactive approach regarding Safety Alerts or similar messaging.

GOM-specific Lifeboat Equipment List

This issue was fully detailed in Task 2 of the 2020 Report. Since that report was submitted, at least one operator and the OOC have submitted alternative equipment lists and proposals to the USCG (both D8 and CG-ENG) for consideration. This submitted information has not resulted in any approvals made by the USCG and, instead, has turned into more of a protracted deflection regarding which CG office can approve this information, what regulatory cites can be used to make a proposal, and how the intent of those related cites should be implemented.

The equipment lists for lifeboats on FOFs resides in 46 CFR Table 108.575(b) under the columns for "Other than international service" and, like everything else in 46 CFR Subchapter I-A, was written for U.S. Flag MODUs which are vessels capable of ocean transit. As detailed in the 2020 Report, there are items in this list that either cannot be used or are not entirely appropriate for an FOF that is permanently moored on the U.S. OCS. Removal of some of this equipment would free up space and weight which are both limited in lifeboats. Ample regulatory flexibility exists in 46 CFR 108.105, 108.510(c), and 33 CFR 140.15 for alternatives to be developed and approved. Accordingly, operators should be able to develop lifeboat equipment lists more appropriate for their application and these equipment lists should be considered for approval by the USCG.

Average Occupant Weights

The issue of ever-increasing average occupant weights was detailed in Task 3 of the 2020 Report. In that task, there were recommendations made to address this issue in Recommendations 6 through 9. Absent USCG Regulatory or policy action, operators should closely examine this issue on their facilities and consider de-rating their lifeboats to accommodate their actual average occupant weights. The "GOM" standard of 210 lbs/person (95kg/person) may not be sufficient based on average passenger weights being flown offshore, which are closer to 220 lbs/person (100kg/person). At least one lifeboat OEM provides lifeboats using an average passenger weight of 225 lbs/person.

Document Control and Maintenance Instructions

In the ROI, paragraph 4.2.5.1.1, the investigation stated that the third revision of the Palfinger "Installation, Operation, and Maintenance Manual" for the LHR model hooks (dated December 17, 2010) was in place on board. Revision 15 of this Manual (dated February 2018) was the revision in effect at the time of the incident on June 30, 2019. Further questioning from NOSAC on this issue indicated that revisions after the third revision on board versus Revision 15 were not relative to the cause of the incident. NOSAC is concerned about the large gap between the most recent version of the manual issued by the OEM and the version available to the crew and believes this issue is not likely to be limited to a single FOF.

Maintenance and Inspection of Suspension Parts Used with Survival Craft

NOSAC is aware that recent incidents with lifeboats and rescue boats have occurred due to a failure of one or more of the "suspension parts" used with the survival craft. Suspension parts are the load supporting components that comprise the interface between the survival craft winch wire rope and the lifeboat or rescue boat release hook mechanism and include master links, lifting links, connecting links, shackles, hammer locks, lower suspension blocks, turnbuckles, suspension chains, maintenance pendants, etc. Existing USCG and International regulations neither clearly or specifically define suspension parts nor provide requirements for their preventative maintenance, including for their mandatory replacement at a specific interval (e.g., once every five years). To avoid similar incidents in the future, NOSAC believes suspension parts must be properly examined periodically for the presence of hairline cracks and material loss due to excessive corrosion or replaced once every five years together with the survival craft fall wires.

Recommendations

3.1 NOSAC recommends that the USCG look at ways to improve its Safety Alert process to more closely align with its stated intent as detailed in Marine Safety Manual, Volume 5, Chapter Six. If information critical to the affected industry cannot be disseminated "quickly", then the USCG should utilize other means to proactively engage the affected industry to prevent a future reoccurrence of a similar issue.

3.2 NOSAC recommends that the USCG allow operators of FOFs to develop lifeboat equipment lists more appropriate for their operations and location for review and collaborative approval by the USCG.

3.3 NOSAC recommends that the USCG address the issue of increasing average occupant weights in lifeboats. Absent USCG regulation or policy guidance, operators with lifeboats on FOFs should closely examine where they are with this issue and consider de-rating their lifeboats or imposing other POB limitations as appropriate. Any discussion on increasing average occupant weights should also include expanding average seat widths to address anthropomorphic concerns. Any modifications to previously USCG Type Approved equipment require additional USCG review and approval before modifications can be made.

3.4 As a General Industry Recommendation, NOSAC recommends that operators verify their document control and maintenance procedures for items under USCG jurisdiction, and not encompassed by 30 CFR Subpart S (SEMS). The intent is that operators should consider conducting a robustness assessment that includes certain elements of SEMS; including document control, management responsibility, risk assessment, safe work practices, audits, corrective and preventive action system, maintenance system implementation issues, stop work authority, training deficiencies, and emergency response. One purpose of this robustness assessment could be to determine the extent management systems have been applied to items that fall outside of Subpart S and to identify where hazards can penetrate the “holes” in the management system and allow an incident to occur.

3.5 NOSAC recommends that the USCG formally define “suspension parts” for lifeboat systems and require their annual and five yearly preventative maintenance. This preventative maintenance requirement should include a predetermined replacement timeframe and/or a prescriptive method for qualifying the level of degradation (e.g., due to indications or excessive metal loss found during non-destructive testing [NDT]) that can be reached before a suspension part must be replaced.

OFFSHORE OPERATORS COMMITTEE
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February 1, 2022

Transmitted via email to HQS-SMB-CG-INV@uscg.mil

SUBJECT: AUGER LIFEBOAT NO. 6 Recommendations

To whom it may concern:

The Offshore Operators Committee (OOC) appreciates the opportunity to provide comments on the Coast Guard's Auger Report of Investigation (ROI). Our comments for each recommendation in the ROI are attached.

OOC is an offshore energy trade association that serves as a technical advocate for companies operating on the US Outer Continental Shelf (OCS). Founded in 1948, the OOC has evolved into the principal technical representative regarding regulation of offshore energy operations.

OOC represents offshore energy operators and service providers who conduct essentially all of the offshore energy activities in the Gulf of Mexico (GOM). Our members recognize that offshore operations must be conducted safely and in a manner that protects the environment. The offshore industry in the GOM has a long history of safe operations that have advanced the energy security of our nation, and provided energy resources that are crucial to our nation's economy.

The comments offered here are done so without prejudice to any of our members who may have different or opposing views.

OOC appreciates the opportunity to provide these comments, and we look forward to continuing to work with the Coast Guard on implementation of the recommendations outlined in the ROI as well as broader life safety issues on the OCS. It is imperative that both regulators and operators commit to our collective mission of maintaining a safe work environment. We must accept this tragic incident as a clarion call to assess, evaluate and implement meaningful change to the way safety is managed. Equipment that is designed to save and sustain life should not be operated or maintained in a manner that may introduce additional risks to the safety of offshore personnel.

If you have any questions regarding the attached comments, please contact me at greg@theooc.org.

Sincerely,

Greg Southworth
Associate Director
Offshore Operators Committee

Safety Recommendation 1*. Recommend the Coast Guard Commercial Regulations and Standards Directorate (CG-5PS) develop a working group to look at consolidating lifesaving gear regulations under one subchapter.*

> ***Endorsement:*** *I partially concur with this recommendation. 46 CFR Subchapter W does not currently apply to OCS facilities, but had it been applicable, the prescriptive lifesaving gear regulations housed therein may have addressed the latent unsafe condition with respect to the degraded control cable before it resulted in this fatal marine casualty. The proposed working group should identify a strategy to update the lifesaving equipment regulations applicable to OCS facilities. Possible options include (1) adding more prescriptive maintenance requirements to 33 CFR Subchapter N, using those in 46 CFR Subchapter I-A and in 46 CFR Subchapter W as a model, or (2) amending 33 CFR Subchapter N to make the requirements of 46 CFR Subchapter I-A and/or 46 CFR Subchapter W applicable to OCS facilities.*

OOC Comment: The OOC requests more information on how the USCG plans to implement this recommendation, especially as it concerns the composition of the working group. This effort should include industry participation via the OOC Lifeboat Workgroup and/or a Task Statement issued by the USCG to the National Offshore Safety Advisory Committee (NOSAC) to ensure industry perspective and experience is incorporated.

OOC does not recommend more prescriptive regulations regarding maintenance requirements as a necessary or practical solution, especially if they do not appropriately consider the difference in use of a lifeboat on a non-mobile OCS facility compared to a Mobile Offshore drilling Unit (MODU) or oceangoing vessel. The necessary maintenance and testing requirements for lifesaving equipment should be specified by the equipment manufacturer.

Also, the USCG should clarify what “lifesaving gear” means in this recommendation. As written this term appears to include all lifesaving equipment and appliances addressed in 46 CFR Subchapter W and not just survival craft (e.g., lifejackets, lifebuoys, distress signals, etc.). In any case, all lifesaving equipment regulations applicable to OCS facilities should be located at 33 CFR Subchapter N.

Safety Recommendation 2*. Recommend [that the Lifesaving and Fire Safety Division] (CG-ENG-4) review procedures related to release mechanism type approval to ensure all components, to include control cables, are thoroughly addressed in type approval submittals and testing.*

> ***Endorsement****: I concur with this recommendation. This investigation revealed that failure of a control cable could result in the uncontrolled release of a lifeboat. Commandant (CG-ENG-4) should review 46 CFR 160.133 and associated regulations and procedures, and consider any updates that may be necessary regarding control cables or other components of release mechanisms.*

OOC Comment: OOC agrees with this recommendation as long as appropriate consideration is made for the differing release system designs in use on OCS facilities.

CG-ENG-4 should ensure the entire process of this review is transparent and open and includes reviewing safety performance and design data available from offshore operators and lifeboat manufacturers.

Safety Recommendation 3*. Recommend that the Office of Commercial Vessel Compliance (CG-CVC) develop regulations requiring thorough annual inspections (including inspection of entire length of cable) and time-based and/or condition-based replacement. Most appropriately, these regulations would apply to all lifeboats. In the absence of rule-making, the CG-CVC should issue strong recommendations to OEMs and operators that they voluntarily apply the same.*

> ***Endorsement:*** *I concur with the intent of this recommendation. I recommend that Commandant (CG-OES) develop standards, applicable to all U.S. vessels and OCS facilities, requiring the annual inspection of the control cables and time-based and/or condition-based replacement. I note that Commandant (CG-INV) issued Safety Alert 03-20 on February 5, 2020, which strongly recommends that lifeboat owners, manufacturers, operators, and service providers implement an inspection regime that allows for cable damage to be identified, and, as necessary, for cables to be replaced in a timely manner.*

OOC Comment: OOC does not agree this should be a prescriptive requirement.

We agree that the USCG should issue Safety Recommendation 3 as a strong recommendation to lifeboat manufacturers to review and update their own guidance using existing industry protocols for the development of maintenance manuals, as the manufacturers should be best positioned to know the relative criticality of the components within their systems. Manufacturer guidance should also be evaluated to ensure that the maintenance procedures are appropriate for OCS facility applications. OCS facilities are not vessels and present unique considerations for lifeboat operations and maintenance.

It is also critical that manufacturer personnel performing inspections and maintenance are fully competent in the inspection of all lifeboat system components. For example, a 100% visual inspection of the outer sheathing of a control cable will likely require its full removal on some boat designs, which is impractical on an annual basis. The working group should work with lifeboat Original Equipment Manufacturers (OEMs) to determine a performance-based approach, or similar strategy, to ensure that control cables do not remain in use past their functional life.

***Safety Recommendation 4**. Recommend (that the Lifesaving and Fire Safety Division] (CG-ENG-4) develop regulations that require that all approved components are approved as a system or are designed to work together (e.g., specific winches allowed to be used with a particular davit, release mechanisms allowed to be used in a specific boat, etc.).*

> ***Endorsement:** I concur with this recommendation. All approvals should ensure that release mechanisms approved under 46 CFR 160.133 properly interface with the launching appliances approved under 46 CFR 160.115 and 160.132. The replacement of any component should require notification and further review of the system by the OCMI and/or Commandant (CG-ENG).*

OOC Comment: OOC agrees with this recommendation. (See related comments under Safety Recommendation 2).

Lifeboat systems contain several type-approved components that should integrate and work together. These systems also contain components that are not type approved (i.e., winch control panels, wire rope falls, etc.). The entire system, type-approved components and non-type-approved components, should be assessed as a "system."

Safety Recommendation 5. *Recommend the [Coast Guard Commercial Regulations and Standards Directorate] (CG-SPS) develop regulations that require the maintenance requirements in 46 CFR [Part] 109 (or similarly structured requirements) to be applicable to FOFs.*

> ***Endorsement:*** *I concur with the intent of this recommendation. 46 CFR Part 109 is not applicable to OCS facilities, but the more prescriptive maintenance requirements therein may have addressed the latent unsafe condition with respect to the degraded control cable. As discussed above under Recommendation 1, a working group should identify a strategy to update lifesaving gear regulations applicable to OCS facilities.*

OOC Comment: OOC does not agree with this recommendation. 46 CFR Subchapter I-A was written for MODUs which are ocean-going vessels. Parts of Subchapter I-A and other 46 CFR regulations (e.g., Subchapters F and J) are selectively referenced in 33 CFR 143.120 to apply to OCS facilities which are not ocean-going vessels.

Instead of indirectly applying vessel regulations located at various 46 CFR subchapters to OCS facilities, the USCG should revise the regulations located at 33 CFR Subchapter N that directly apply to OCS facilities. In the meantime, we recommend this issue be addressed through the use of Navigation and Vessel Inspection Circulars (NVIC) or other USCG policy as already recommended in the 2020 NOSAC Report on Lifeboat and Rescue Craft Safety on the OCS.

In addition, any working group should include industry participation via a Task Statement issued by the USCG to NOSAC to ensure subject matter experts and the regulated community have an opportunity to participate.

Safety Recommendation 6*. Recommend [the Coast Guard Commercial Regulations and Standards Directorate] (CG-5PS) reevaluate the use of lifeboats as rescue boats. During witness testimony it was noted the freeboard was too high to lift an unconscious person into the boat and the doors were not wide enough to allow two persons to lift an unconscious person through.*

> ***Endorsement:*** *I concur with the intent of this recommendation. In accordance with 46 CFR 108.510(b), OCS facilities constructed before October 1, 1996, such as AUGER, are not currently required to have rescue boats. The working group discussed in Recommendation 1 and 5 should determine if all FOFs, regardless of build date, should be equipped with an approved rescue boat.*

OOC Comment: We recommend that the working group consider developing a performance standard that allows an operator to submit a proposal based on recognized safety evaluation methodologies (such as an Escape, Evacuation, and Rescue Analysis (EERA)) that demonstrates sufficient mitigations are in place to recover a person from the water, should it be required, as an alternative to a required rescue boat. As with other recommendations, we recommend that this be accomplished in a manner that allows input from subject matter experts and the regulated community.

Safety Recommendation 7*. Recommend the [Coast Guard Commercial Regulations and Standards Directorate] (CG-5PS) develop regulations ensuring oversight of lifeboat, winch and davit repairs and modifications for all vessels and facilities not subject to 46 CFR Subchapter W, Lifesaving Appliances and Arrangements.*

> ***Endorsement:*** *I concur with the intent of this recommendation. I recommend that Commandant (CG-5PS) consider the development of regulations requiring notification to the cognizant OCMI when an operator intends to conduct repairs or modifications to primary lifesaving equipment on an OCS Facility.*

OOC Comment: OOC agrees with this recommendation; however, development and implementation of such regulations will require adequately trained USCG personnel to provide competent oversight. This issue was highlighted in the 2020 NOSAC Report on Lifeboat and Rescue Craft Safety on the OCS in response to Task Number 6 issued by the USCG.

During deliberations for that report, the USCG attended meetings with several lifeboat manufacturers. The manufacturers highlighted several instances of improper repairs that had to be corrected because the repairs were performed by non-qualified third-party vendors. One manufacturer sent a letter to the D8 OCS OCMI in 2020 detailing concerns with repairs from unqualified third parties.

Lifeboats and their launching systems are USCG type-approved equipment and current BSEE/USCG Memoranda of Agreement (MOA) OCS-04 and OCS-09 indicate that the USCG is the Responsible Agency with jurisdiction over all lifesaving equipment systems, including lifeboats, on OCS facilities. We recommend the USCG consistently apply oversight in this regard and address the significant concerns raised by the OEMs.

Safety Recommendation 8*. Recommend the [Coast Guard Commercial Regulations and Standards Directorate] (CG-5PS) develop policy that ensures OCMIs and their representatives properly evaluate type approved equipment in regards to repairs and modifications (especially as they relate to serviceability and maintaining equipment in an as-approved condition), and that CG-ENG-4 remains engaged appropriately in these activities as necessary after initial approval.*

> ***Endorsement:*** *I concur with the intent of this recommendation. I recommend that the Coast Guard Force Readiness Command (FORCECOM) also evaluate Marine Inspector training on this topic, taking into account the information in this report, and if necessary develop training to ensure USCG Marine Inspectors are properly equipped to complete oversight activities.*

OOC Comment: OOC agrees in principle; however, as identified in the D8 Commander's endorsement, this will require properly trained personnel. We support improvements to USCG Marine Inspector training on this topic. This training should be part of an evergreen process to ensure the competency of USCG Marine Inspectors just as it is with industry personnel.

USCG personnel may lack actual operational experience with OCS facility lifeboat systems, which at times has led to a Marine Inspector compelling the crew to conduct practices that may not align with company policy or other safe work practices (e.g., full loading of personnel in a stowed lifeboat, launching in less-than-ideal weather conditions, placing USCG personnel inside survival craft during launching for "training" purposes, etc.). A robust competency program for USCG Marine Inspectors would be beneficial to enhancing an inspector's understanding of all operational and safety aspects related to properly evaluating lifeboat systems on OCS facilities.

Safety Recommendation 9*. Recommend the D8 OCMI (ocs) update current policy on drill and maintenance requirements for regulated facilities operating on the OCS to best reflect current regulatory requirements.*

> ***Endorsement:*** *I concur with the intent of this recommendation. The D8 OCS OCMI published Policy Letter 01-2020, which clarified emergency evacuation drill requirements but did not address the maintenance requirements in 33 CFR 146.15. As noted in my endorsement of Safety Recommendations 1 and 5, I recommend that Commandant (CG-5PS) consider potential updates to lifesaving gear regulations applicable to OCS facilities, particularly with regard to more prescriptive maintenance requirements. In the meantime, I have directed the D8 OCS OCMI to review current guidance and consider the most appropriate means to ensure compliance with the intent of current regulations.*

OOC Comment: OOC agrees with this recommendation.

Please see the 2020 NOSAC Report on Lifeboat and Rescue Craft Safety on the OCS for further comments on D8(OCS) Policy Letter 01-2020. We recommend that the USCG cancel this policy letter, and that the D8 OCS OCMI develop a more comprehensive policy in concert with the industry to address the numerous issues related to lifeboat testing, maintenance, operation, and recovery on OCS facilities.

33 CFR Subchapter N requires lifeboat systems to be in "good condition" at all times and OCS facility personnel to demonstrate the ability to perform their assigned emergency duties by conducting drills. 33 CFR Subchapter N does not require launching lifeboats when conducting maintenance or emergency drills, and we suggest that there are multiple ways to achieve these performance standards without launching lifeboats.

We interpret "good condition" to mean that the equipment is fully operational, ready for emergency use, and maintained in accordance with the guidance contained in the relevant OEM maintenance manual. If an OEM has developed protocols (e.g., an alternative to traditional periodic in-water testing) and has included them in the lifeboat's maintenance manual, then the USCG should recognize such protocols are an acceptable method to maintain the lifeboat in good condition.

In addition to cancelling D8(OCS) Policy Letter 01-2020, we recommend that the USCG cancel D8(m) Policy Letter 03-2000, CH-1 and D8(m) Policy Letter 08-2001, which are legacy D8 OCS OCMI policy letters addressing OCS facility manning and personnel licensing, respectively. The 2018 NOSAC Production Subcommittee Report noted that the requirements imposed upon OCS facilities and personnel by these policy letters exceeds the USCG's authority under applicable laws and regulations and recommended that the USCG cancel these policy letters.

Safety Recommendation 10*. Recommend the [Coast Guard Commercial Regulations and Standards Directorate] (CG-5PS), with input and involvement by the [OCS] NCOE, develop a work group to research/revise regulations and policies and engage with other administrations for input into their management of the following for the offshore oil & gas operations:*

- *Lifeboat launching*
- *Drills and competence*
- *Maintenance*

Endorsement: *I concur with this recommendation. The work group should include the D8 OCS OCMI. In addition, I recommend this work group reach out to the Bureau of Safety and Environmental Enforcement (BSEE) to evaluate if the above activities should also be incorporated in the Safety and Environmental Management System under 30 CFR 250.1915 and 250.1916.*

OOC Comment: OOC agrees in principle with this recommendation. As recommended earlier, this work group needs to involve the industry and/or NOSAC. Similar recommendations like this were also made in the 2020 NOSAC Report on Lifeboat and Rescue Craft Safety on the OCS. The need to involve other offshore regulators and trade associations cannot be over emphasized. Other offshore areas have done an outstanding job of developing useful, relevant studies and guidance in conjunction with the regulated community (e.g., UK Health and Safety Executive (HSE), Canadian Association of Petroleum Producers/Transport Canada).

OOC recommends the best and most efficient path forward is policy development. The ROI recommendation lists "lifeboat launching," "drills and competence," and "maintenance." "Alternative testing protocols in-lieu of lifeboat launching," and "rescue boats" should be added to this list.

The D8 Commander's endorsement to this recommendation includes the recommendation to determine if these activities should be incorporated into BSEE's Safety and Environmental Management Systems (SEMS) regulations. This requires further clarification from the USCG as SEMS is a BSEE requirement, and BSEE regulations are clear that SEMS does not apply to lifeboat maintenance. 30 CFR 250.1900(b) states:

> "**Nothing in this subpart affects safety or other matters under the jurisdiction of the Coast Guard."**

In addition, 30 CFR 250.1916 states:

> "Your mechanical integrity program must encompass all **equipment and systems used to prevent or mitigate uncontrolled releases of hydrocarbons, toxic substances, or other materials** that may cause environmental or safety consequences."

Furthermore, BSEE/USCG Memoranda of Agreement (MOA) OCS-04 and OCS-09 indicate that the USCG is the Responsible Agency with jurisdiction over all lifesaving equipment systems, including lifeboats, on OCS facilities. Incorporating requirements relating to lifesaving equipment into SEMS programs under the jurisdiction of BSEE is unnecessary, would create confusion, and would provide no additional safety benefit. (See related comments under Safety Recommendation 7).

Administrative Recommendation 1*. Recommend the D8 OCMI (ocs), after being routed and reviewed by [the Office of Investigations & Casualty Analysis] (CG-INV), communicate Findings of Concern to the OEM, recommending:*

- *The OEM update work instructions to automatically replace control cables five years from the date the cables were installed.*
- *The OEM update all work instructions to better communicate the nature of repair or replacement recommendations, the risk posed by the deficiency, and a recommended timeline for repair or replacement.*
- *The OEM review and revise their procedures for release mechanism control cable installations and inspections and provide training on the same to their technicians.*
- *The OEM conduct a review of its hook indicator color coding system to determine whether the current system (red means open; green means closed) is confusing for operators.*

  Endorsement: *I concur with the intent of this recommendation. The investigation revealed the critical importance of the release cable and the necessity to improve the level of oversight and associated training by OEMs. Additionally, this investigation discovered that lifeboat crew members may be confused by the color scheme utilized to demonstrate with open/closed, on lifeboat hooks, and that this confusion could lead to additional marine casualties. I recommend that Commandant (CG-ENG) notify OEMs of these Findings of Concern and associated recommendations.*

OOC Comment: OOC agrees with this recommendation.

Administrative Recommendation 2*. Recommend the D8 OCMI (ocs), after being routed and reviewed by [the Office of Investigations & Casualty Analysis] (CG-INV), communicate Findings of Concern to the Operator, recommending:*

- *The Operator incorporate all OEM recommended maintenance into their maintenance system as mandatory.*

  Endorsement: *I concur with this recommendation. This investigation revealed that it is paramount that emergency gear be kept in good condition at all times, which may have been achieved by promptly acting upon all OEM recommendations. This investigation concluded that the OEM had made a recommendation to the Operator that the control cable in Lifeboat NO. 6 be replaced, and that such replacement was not accomplished.*

  Action: *The D8 OCS OCMI will draft an appropriate Finding of Concern to communicate recommendations to the Operator, including incorporation of OEM recommendations into their maintenance system, as well as clarification of roles and expectations between the OEM and the Operator.*

OOC Comment: OOC partially agrees with this recommendation. We recommend that the recommendation be clarified to state that lifeboat OEM maintenance system recommendations should be specific to OCS facilities. OCS facilities are not vessels and vessel-centric lifeboat maintenance systems may not be applicable to OCS facilities.

Administrative Recommendation 3*. Recommend [the Office of Investigations & Casualty Analysis} (CG-INV) issue a Finding of Concern recommending that operators ensure that persons planning, conducting, and overseeing routine lifeboat maintenance have read and are familiar with the applicable lifeboat operations and maintenance manual.*

> ***Endorsement:*** *I concur with this recommendation. This investigation highlighted the importance that those crew members charged with regular maintenance and inspection duties be thoroughly familiar with the components of lifeboats with which they interact. With the assistance of the D8 OCS OCMI and the OCS NCOE, CG-INV should communicate this importance to vessel and OCS facility operators via a Finding of Concern.*

OOC Comment: We recommend that this recommendation be clarified to explain how "familiar with the applicable lifeboat operations and maintenance manual" is demonstrated. We recommend that a variety of mechanisms are appropriate including, but not limited to, training documentation, competency testing programs, or on-the-job evaluation by more experienced personnel.

Administrative Recommendation 4*. Recommend [the Office of Investigations & Casualty Analysis] (CG-INV) issue a Finding of Concern recommending operators, with the assistance of the OEM, train crews to ensure they understand how the hook indicators, when installed, function and convey information regarding the condition of the hook. Operators and OEMs should also communicate to crews the need to verify the status of the hook indicator at least two times during the retrieval process: at the water after the falls are connected and immediately after the lifeboat clears the water.*

> ***Endorsement:*** *I concur with this recommendation. Commandant (CG-INV) should communicate the importance of ensuring those associated with lifeboat duties on vessels and OCS facilities understand the functions of the lifeboat hook and color position indicators.*

OOC Comment: OOC agrees with this recommendation.

Administrative Recommendation 5*. [The Office of Investigations & Casualty Analysis] (CG- INV) and [the Office of Commercial Vessel Compliance (CG-CVC)] should widely publicize this investigation's findings related to the hazards posed by compromised control cables to all marine sectors maintaining and operating lifeboats, to include Coast Guard inspectors.*

> ***Endorsement:*** *I concur with this recommendation and note that some of these findings have already been disseminated via Safety Alert 03-20. Additionally, the information in this Report of Investigation should be utilized when training CG Marine Inspectors.*

OOC Comment: OOC agrees with this recommendation.

Administrative Recommendation 6*. [The Office of Commercial Vessel Compliance (CG-CVC)] and [the Lifesaving and Fire Safety Division] (CG-ENG-4) should provide additional guidance to inspectors and the regulated community regarding certificates of approval regulated under 46 CFR 2.75-5. This guidance should include clarity on who they are issued to, how they relate to the sale and production of equipment, the significance of their validity period, and what constitutes replacement in kind of equipment no longer holding a valid approval certificate.*

> ***Endorsement:*** *I concur with this recommendation. In the course of this investigation it was discovered the Lifeboat NO.6 had been sold multiple times. As indicated in this Report of Investigation, especially sections 4.3.4.2.1 and 5.10, there is lack of clarity regarding how to correctly apply certain provisions of 46 CFR 2.75 and 46 CFR 160.135-23. Additional guidance for Marine Inspectors would be useful.*

OOC Comment: OOC recommends that this recommendation be clarified to ensure that any certificate of approval program includes provisions that allows the transfer of ownership of a lifeboat and the use of a lifeboat on another OCS facility, as long as the lifeboat has been maintained in good condition per 33 CFR Subchapter N.

Administrative Recommendation 7*. Recommend the [Office of Investigations and Casualty Analysis] (CG-INV) issue a Finding of Concern that highlights the benefits of using FPDs during lifeboat launches and retrieval drills.*

> ***Endorsement:*** *I concur with the intent of this recommendation. Commandant (CG-CVC and CG-ENG-4) should review the efficacy of utilizing Fall Protection Devices for training and maintenance evolutions.*

OOC Comment: We recommend that this recommendation be clarified as follows (additional bold text):

> *Recommend the [Office of Investigations and Casualty Analysis] (CG-INV) issue a Finding of Concern that highlights the benefits of using FPDs during lifeboat launches and retrieval drills,* ***where such devices are recommended by the OEM.***

Not all lifeboat systems can accommodate the use of FPDs.

Administrative Recommendation 8. *Recommend that this investigation be closed.*

Endorsement: *I concur with this recommendation.*

OOC Comment:

OOC commends the USCG investigation team on successfully completing the Auger ROI, and we support closing the investigation into the Auger incident. The information and recommendations contained in the report will be valuable as the offshore industry continues to enhance safe operations. OOC offers the following constructive observations for the USCG to consider:

- The USCG should continue to assess alternatives to lifeboat launching for drills and maintenance due to the increased risks and challenges with periodic in-water launch and recovery of lifeboats from OCS facilities. There are several resources that may be helpful in aiding the USCG in continuing to evaluate alternatives to launching, including:
  - A 2015 NOSAC Task Statement titled *Safety of Persons Assigned to Lifeboats during Launching, Recovery, and Maintenance Activities for Mobile Offshore Drilling Units, Mobile Offshore Units and Floating Offshore Installations Working on the U.S. Outer Continental Shelf.*
  - A USCG Task Statement to NOSAC in 2019 that has been referenced several times throughout these comments.
  - OOC conducted a qualitative risk assessment evaluating the risks associated with lifeboat launching and recovery for drills and maintenance for three different scenarios: 1) manned launched/recovery, 2) unmanned launch/recovery with on-water personnel transfer, and 3) no-launch alternatives. This risk assessment was shared with USCG D8 OCS OCMI personnel while the Auger investigation was ongoing.

  These are excellent resources for the USCG to reconsider the historical practice of traditional launch/recovery methods.

- The USCG should evaluate the design of cantilever style davits on OCS facilities and, in contrast with the design of gravity davits on merchant ships, how they do not allow a boat to be temporarily secured while personnel disembark during recovery. Instead, personnel disembark from a lifeboat at an "embarkation" deck and the final "turning in" of the lifeboat to its stowed position via the hand crank is done without personnel remaining in the lifeboat.

- The USCG should consult with the Occupational Safety and Health Administration (OSHA), specifically as it pertains to OSHA's prohibition on personnel in lifeboats during lowering and recovery (see 29 CFR 1915.86(b)). OSHA may be able to provide the USCG with additional insights for improving lifeboat safety.