

# OOC OFFSHORE PLATFORM FIREFIGHTER TRAINING INDUSTRY GUIDANCE DOCUMENT

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#### Disclaimer

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## TABLE OF CONTENTS

1 .	BACKGROUND		
2	Scope	4	
2.1	Excluded	4	
<u>3</u>	Case of Change	5	
3.1	RECOMMENDATIONS FOR OCS OPERATORS	$\epsilon$	
3.2	RECOMMENDATIONS FOR USCG	6	
3.3	RECOMMENDED BEST PRACTICES	$\epsilon$	
<u>4</u>	Course Content		
4.1	Financian of Francisco	<u>-</u>	
4.1 4.2		7	
	PROCESS UNIT FIREFIGHTING  PROCESS UNIT FIREFIGHTING SCENARIOS	7	
	ACCOMMODATIONS AND INTERIOR FIREFIGHTING	8	
	Accommodations and Interior Firefighting Scenarios	8	
	t of Tables		
TABLE	TABLE 1. RECOMMENDED DEST DRACTICES FOR COURSE CURRICULIA		



## 1 Background

On May 3, 2022, USCG District Eight (D8) issued Policy Letter 01-2022, Verification of Training and Drills for Personnel Assigned Special or Emergency Duties on Floating Outer Continental Shelf (OCS) Facilities (FOFs)<sup>1</sup>. This policy letter is included as Appendix I to this guideline.

Policy Letter 01-2022 outlines performance-based goals for qualifications of marine positions on FOFs. However, Policy Letter 01-2022 does not prescribe specific training or competencies. This guideline is intended to provide recommendations to the offshore industry to meet the performance-based goals of Policy Letter 01-2022.

This represents a change to the historical application of USCG Vessel/Marine Firefighting requirements on floating offshore platforms underpinned by the broader safety guidance for maritime operational competencies defined in Standards of Training, Certification and Watchkeeping "STCW"<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> United States Coast Guard- District 8 Policy Letter 01-2022 (May 3, 2022)

<sup>&</sup>lt;sup>2</sup> International Maritime Organization- Standards of Training, Certification and Watchkeeping (STCW) Table A-VI/3 (2019)



## 2 Scope

This document is intended to establish a risk-based industry driven recommended best practice for the training and competency assessment of firefighters working on offshore production platforms, also known as FOFs, in the United States Gulf of Mexico (U.S. GOM). FOFs are considered non-vessels under current USCG policy (CG-OES Policy Letter 01-20).

None of the recommendations contained in this document are intended to replace the responsibilities of the Ultimate Work Authority (UWA) for the FOF. UWA requirements can be found in 30 CFR 250.1931.

#### 2.1 Excluded

- Fixed Platforms (bottom founded)
- Self-propelled vessels such as Mobile Offshore Drilling Units (MODUs), Floating Production Storage and Offloading (FPSO) installations, Offshore Support Vessels (OSVs), or other units that may be considered vessels.
- Passive and active fire protection equipment. This document focuses on the training and competency statements for the human barrier of offensive firefighting. The design, selection, and use of fire protection systems (passive and active) are individual business decisions.



## 3 Case of Change

The policy changes outlined in USCG Policy Letter 01-2022 removed the explicit requirement to follow the USCG Maritime/Vessel Firefighting training curriculum for units that are non-vessels. This change affords the opportunity to develop a risk-based and industry-driven solution.

Prevention is, and always will be, paramount to the safety management system of offshore operators. Operators also maintain an emergency response posture as part of a broader risk management system. Alignment on competencies for firefighters serves to improve the safety culture across the industry in the Gulf of Mexico.

Since the first floating platform in the late 1980s<sup>3</sup>, offshore production platforms have evolved both in size and complexity. The number of personnel on-board a FOF vary per asset but can credibly exceed 200 people. The living quarters on-board these FOFs are significantly larger, given the higher POB. The larger living quarters increase the complexity of interior firefighting tactics, and, as a result, there is greater potential for loss of life.

As industry has grown to more subsea tie backs flowing through top-side production hosts at/above the waterline, the production capacity and infrastructure on-board an FOF has grown. The complexity and operating pressures of top-side production equipment represent different hazards than that of engine room or on-deck hazards associated with vessel operations. Fire suppression equipment and tactics necessary for modern production platforms has evolved from the equipment and tactics used for vessel borne fires on ships. Qualifications for offensive manual firefighting on production equipment and production related structures (MCC, generator buildings etc.) more closely aligns with National Fire Protection Association standards for industrial firefighting<sup>4</sup>.

Events in recent history have tragically demonstrated the disconnect between legacy response posture and modern-day fire load. The need for adequately sized offensive manual firefighting tools was identified as a contributing factor to firefighter fatalities on-board a ship in the Port of Newark, New Jersey (USA). An initial report from the Newark Fire Officers Union indicated that the vessel's 1 inch maritime/vessel fire hose, "...which does not provide the protection, reach and ability to put out the volume of fire, caused the deaths of our brave brothers" Similarly, the use of 1.5" diameter fire water hoses, with 95 GPM nozzles may be industry standard for vessel firefighting, but it is below industry standards for safe and effective firefighting in the petrochemical industry.

Further, helicopter operations and airframe designs have changed due to longer flight distances from shore, with larger and more technologically advanced airframes, and increased passenger capacity requirements. Industry guidance exists for the design and

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<sup>&</sup>lt;sup>3</sup> Jolliet Tension Leg Platform "TLP"- January 1989. Green Canyon Block 184

<sup>&</sup>lt;sup>4</sup> NFPA 1081. Standard for Industrial Fire Brigade Member Professional Qualifications (2017)

<sup>&</sup>lt;sup>5</sup> Firehouse Magazine. NJ Fire Union: Initial Hoselines Too Small for Deadly Ship Fire (2023)

<sup>&</sup>lt;sup>6</sup> NFPA 600. Standard on Facility Fire Brigades (2019)



maintenance of helideck systems, including fire protection systems<sup>7</sup>. Additional industry standards call for offshore platform fire teams to provide covering support to helideck crash-fire-rescue operations for an escalating incident<sup>8</sup>. The scope of work between crash-fire-rescue operations<sup>9</sup> and a platform's fire team, specific competency statements and associated training, is needed for platform fire teams to understand the hazards associated with credible aviation scenarios. Specific competency statements for aviation incidents will ensure responding fire teams are trained to support a crash-fire-rescue team for an escalating incident and thereby meet the intent of the existing industry standards.

#### 3.1 Recommendations for OCS Operators

- Adopt a training course for Offshore Platform Firefighter that considers the totality of the FOF (e.g., helideck, drilling unit, production unit, living quarters etc.), see Offshore Operators Committee (OOC) Recommended Best Practice, or equivalent.
- Establish a firefighting philosophy or response posture for your organization.
- Establish a business posture on Fitness to Work for emergency responders.
- Establish a business posture on respiratory protection for emergency responders.

#### 3.2 Recommendations for USCG

Consider totality of risk, and geographic specificities, when applying type approval requirements to FOF installations in the U.S. GOM to allow operators to maintain on-board firefighting appliances that are adequate for safely fighting process unit fires using industry benchmarked firefighting tactics and align with the firefighting tactics included in this program.

#### 3.3 Recommended Best Practices

The course curriculum outlined below was developed by the contributors. It is offered as an industry driven, risk-based course for Offshore Platform Firefighter. This material is also intended to offer fire training facilities as a framework for class offerings, to ensure alignment across the industry.

Course	Initial	Refresher (3 yrs)
Offshore Platform Firefighter	40 hours	16 hours
Offshore Platform Firefighter- Leadership (TBD)	8 hours	8 hours

Table 1: Recommended best practices for course curriculum.

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<sup>&</sup>lt;sup>7</sup> Helicopter Safety Advisory Conference. Recommended Practice 163 Inspection, Maintenance and Operation of offshore helidecks (2022)

<sup>&</sup>lt;sup>8</sup> CAP 435: Standards for Offshore Helicopter Landing Areas (2023)

<sup>&</sup>lt;sup>9</sup> Offshore Petroleum Industry Training Organization "OPITO" Helideck Emergency Response Team Leader Workplace Competence Assessment Standard (2019)



## 4 Course Content

## 4.1 Fundamentals of Firefighting

- PPE/SCBA
- Radio Communications
- Personnel Accountability
- Fire Dynamics & Behavior
- Thermal Imaging (Situational and Decision Making)
- Fire Extinguishers (A, B, C, D K)
- Hand Tools
- Appliances
- Foam
- Suppression & Detection Systems
- Incident/Scene Size-up
  - o Identify Type of Fire
    - Pressure Fire
    - 3D Fire
    - Pool Fire
  - Equipment Selection
  - o Tactics
  - Recognize Escalation Factors

#### 4.2 Process Unit Firefighting

- Hose Line and Monitor Management
- Effective Fire Streams
- Pool Fires/ Foam Application
- Fire Extinguishers Class A, B, C, and D Fires
- Lithium-Ion Battery Firefighting
- Helideck Fire and Rescue

#### 4.3 Process Unit Firefighting Scenarios

- Pump Seal Fire
- Compressor Fire
- Pool Fire
- Flange Fire
- Electrical Fire/Lithium-Ion Battery
- Helideck Fire/Rescue



### 4.4 Accommodations and Interior Firefighting

- Interior Fire Attack w/ Hose Line
- Fire attack w/ Piercing Nozzle and Distributor Nozzle
- Defensive Firefighting w/ Handlines and Monitors
- Primary and Secondary Search
- Salvage/Overhaul
- RIT/ Firefighter Survival

## 4.5 Accommodations and Interior Firefighting Scenarios

- Galley Fire
- Electrical Fire
- Laundry Room Fire
- Quarters Fire
- Storage Fire w/ Flammable Liquids
- RIT/Firefighter Survival



# 5 Appendix A: USCG Policy Letter

<u>D8 Policy Letter 01-2022: VERIFICATION OF TRAINING AND DRILLS FOR PERSONNEL ASSIGNED SPECIAL OR EMERGENCY DUTIES ON FLOATING OUTER CONTINENTAL SHELF (OCS) FACILITIES (FOFs)</u>