Developing a Fatigue Risk Management Program for Offshore Personnel

API RECOMMENDED PRACTICE 23FM
FIRST EDITION, MAY 2026



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Introduction

The Center for Offshore Safety (COS) and its members (oil and gas operators and contractors) have been working to educate industry on the prevention and management of fatigue risks in the offshore industry. As in any 24/7 industry or operation, workers are regularly exposed to risk factors that can cause or exacerbate fatigue. Fatigue is a health and safety concern. To reduce the likelihood of fatigue-related accidents, organizational management and risk mitigation are essential.

Management of fatigue is a shared responsibility between employers and personnel, requiring actions by both parties to facilitate fatigue reduction and management. Work structure—defined by the organization (shift lengths, rotations, and travel logistics), personal health, and worker behavior—can influence fatigue. Taking a proactive approach to fatigue prevention and management can reduce the risk of fatigue-related accidents. This document is provided to help companies develop a fatigue risk management program by taking a comprehensive, customized approach to addressing fatigue, including policies and practices that address a wide range of risk factors and mitigation measures. This program should be developed in coordination with existing health and safety, human resources, and operations management systems as applicable.

The COS Fatigue Risk Management Work Group has identified elements that it considers most important to address in a fatigue risk management program. It is generally agreed that these elements positively impact the management of fatigue risks and improve industry safety. Collectively, the elements comprise a toolkit that can be leveraged to tailor a plan specific to the needs of a company. This document is tailored to the unique operational and environmental challenges of offshore operations; however, it is not intended to be a “one-size-fits-all” approach.

Companies should conduct an assessment to evaluate their specific operating environment(s) for fatigue-related risks and identify processes and procedures that are already in place to mitigate these risks. Following the assessment, this document may help companies link their existing fatigue mitigation measures into a comprehensive fatigue risk management program. Some of the suggested practices can overlap with a company’s existing policies and procedures. Other suggested practices can be implemented to close a gap that a company has discovered or can be considered by a company seeking to expand its fatigue risk management efforts. Some measures discussed in this document may not apply to a particular company’s operations. The COS Fatigue Risk Management Work Group intends for this document to be a toolbox for use by offshore operators to address their specific fatigue challenges.

Some of the primary sources consulted in the development of this document include relevant materials on fatigue from American Waterways Operators (AWO), National Institute for Occupational Safety and Health (NIOSH), and Centers for Disease Control and Prevention (CDC).

Developing a Fatigue Risk Management Program for Offshore Personnel

1 Scope

This document is intended for use by companies engaged in offshore oil and natural gas operations located on the U.S. Outer Continental Shelf (OCS). Organizations applying it in other jurisdictions or to other types of operations should use sound engineering judgment in reviewing and adapting the content to reflect local regulations, standards, and operational conditions.

2 Normative References

There are no normative references in this document.

3 Terms and Definitions

3.1
call-out
A summoning of personnel to perform work when they were not scheduled for work.

3.2
fatigue
A physiological state of reduced mental and physical functioning that can be caused by sleep deprivation or being awake during normal sleep hours. This may result from extended work hours, insufficient opportunities for quality sleep, failure to use available sleep opportunities, or the effects of sleep disorders, medical conditions, or pharmaceuticals that reduce sleep or increase sleepiness.

NOTE The focus of this document is fatigue caused by insufficient amount of quality sleep.

3.3
hours of work
The hours engaged in activities at the direction of the company or for company benefit.

3.4
journey management
A planned and systematic process of reducing transportation-related risks.

3.5
on-call time
The time during personnel's scheduled period of rest on board or at a site that can be disturbed by work activities at the direction of the company or for company benefit.

NOTE This is intended to cover situations such as when personnel, having to monitor the alarms in an unattended machinery space, retire to their bunk but has their rest disturbed by a call-out to work. In such circumstances, personnel may need to make up for the rest time lost because they were called out to work.

3.6
rotation
A schedule of work and rest periods (e.g., 14-day rotation of seven-night shifts and seven-day shifts, followed by 14 days of rest).

3.7
shift
The scheduled hours of work in a 24-hour period (e.g., 12 hours from 06:00 to 18:00).