



SAFETY MANAGEMENT SYSTEM EXPECTATIONS FOR RENEWABLE ENERGY COMPANIES OPERATING ON THE OUTER CONTINENTAL SHELF

U.S. DEPARTMENT OF THE INTERIOR

EXECUTIVE SUMMARY

Purpose

The Bureau of Safety and Environmental Enforcement (BSEE), a bureau within the Department of the Interior (DOI), oversees and enforces the safety and environmental performance of all renewable energy activities on the Outer Continental Shelf (OCS) in coordination with the Bureau of Ocean Energy Management (BOEM).

BSEE has developed this document to address the offshore wind industry's request for clarification regarding BSEE's expectations regarding Safety Management Systems (SMS) submission requirements for offshore renewable energy activities. This information summarizes the Bureau's expectations regarding Operator compliance with existing statutes and regulations and conditions of plan approval, but does not have the force and effect of law and does not alter any rights or obligations under the referenced statutes and regulations. As projects mature and the industry and BSEE gain experience, BSEE will update this document as needed.

This document discusses topics for consideration during the development of SMS that are specifically related to offshore renewable energy projects during site assessment, construction, operation, maintenance, and decommissioning phases. DOI's performance-based regulatory approach in 30 C.F.R. part 285, subpart H provides industry with flexibility to adopt appropriate existing U.S. and/or international standards and recommended practices within their SMS to ensure worker safety and health and protection of the environment.

In October 2019, DOI published a policy statement in the Federal Register clarifying that DOI will act as the principal federal agency for the regulation and enforcement of safety and health requirements for OCS renewable energy facilities. See <https://www.bsee.gov/what-we-do/renewable-energy/renewable-energy-policy-statement>, 84 Fed. Reg. 55,861 (Oct.18, 2019). DOI's regulatory requirements for offshore renewable energy facilities apply to SMS instead of those of the Occupational Safety and Health Administration.

For more information and guidance related to the workplace health or safety of employees on offshore energy facilities on the OCS, please visit BSEE's [webpage](#).

Working with lessees, grant holders, and/or designated operator

BSEE's renewable energy SMS oversight is focused on the lessees, grant holders, and/or the designated operators (collectively, Operators) who are responsible for managing safety of offshore renewable energy activities. BSEE expects that each SMS will be risk-based, adaptive, and should account for the unique safety challenges associated with each operational phase of the project.

One objective of BSEE's SMS oversight is to ensure that all companies performing operations on OCS renewable energy leases and installations, including contractors, design and implement an SMS that is appropriate for the risks that need to be managed. While an SMS is expected to guide all operations (see Chapter 1), only a description of the SMS is required to be submitted with a Construction and Operations Plan (COP) (provided under 30 CFR 585.627(d) (see Chapter 2). Every SMS should contain details on the hazards, risks, and controls for each phase of activity on the OCS (e.g., site assessment and characterization, construction [typically tied to a Fabrication and Installation Report (FIR)], operations, maintenance, and decommissioning) (see Chapter 3).

As BSEE reviews each SMS, it will work with the Operator and contractors to address any SMS design and implementation questions or concerns.

Safety management as a company commitment

BSEE's review of each SMS will include an assessment of whether the SMS program is practical; is consistent with established and recognized standards for SMS; and confirms the Operator management's commitment to provide sufficient resources and employee participation in the design and operation of all SMS. The active commitment to safety from Operator leaders at all levels is critical to the success of any SMS. Leaders' actions dictate and demonstrate the direction, expectations, and acceptable behaviors to the workforce and influence all aspects of safety performance. Senior leadership's promotion of SMS and visible support can improve buy-in across all organizational levels.

SMS performance and reliance on consensus-based standards and industry guidelines

BSEE encourages the adoption of effective, consensus-based standards and recommended practices and industry guidelines for design and procedures within the SMS framework to enhance offshore activities' safety and environmental performance (see Chapter 4). BSEE also encourages Operators to use consensus-based standards and recommended practices, as well as industry guidelines, to allow all parties involved, including contractors and subcontractors, to benefit from the collective industry experience in developing safe practices, assessing identified risks, establishing safeguards, and engaging in continual improvement.

CHAPTER 1.

SAFETY IS ALWAYS A PRIORITY

Operators are required to conduct all activities in a manner that ensures safety. [30 CFR 285.105(a)]. Before the Operator begins construction on the OCS, they will typically conduct offshore operations, such as site assessments, in support of lease development. This means that even before COP approval, the Operator must ensure that any work being performed on the OCS in support of lease development is managed safely. BSEE can request evidence that work is being planned and conducted appropriately for the associated risks.

CHAPTER 2.

SMS SUBMISSION AS PART OF A COP/GAP/SAP

Before an Operator may begin construction or operations on a wind energy lease, they must submit a description of their SMS to BSEE. [30 CFR 585.627(d)]. As the authority for OCS safety management, BSEE collaborates with BOEM to review the required aspects of the COP, including the SMS, and encourages pre-submittal meetings between BSEE and the Operator before the formal final submittal.

If an Operator's proposed facilities or combination of facilities are associated with a Site Assessment Plan (SAP) or General Activities Plan (GAP) that is determined by BOEM to be complex or significant, the Operator must submit an SMS description to BSEE to obtain SAP or GAP approval by BOEM. [30 CFR 285.614(b) and 30 CFR 285.651].

When reviewing the SMS at the planning stage of the project lifecycle, BSEE focuses on the description of the SMS, which is expected to include, but is not limited to, the following information:

1. Selection of SMS Framework
 - a. Since the SMS regulation at 30 CFR 285.810 is performance-based, BSEE does not require the use of a specific SMS framework.
 - b. BSEE encourages Operators to adopt a consensus-based SMS standard as the framework of their SMS (e.g., ISO 45001, API RP 75, ANSI Z10). This would give assurance to both the Operator and BSEE that the Operator's safety systems will be developed systematically. If an Operator plans to use more than one SMS framework standard, they should include a description of the process used to identify and mitigate any gaps created by combining multiple SMS framework standards.
 - c. BSEE also encourages Operators to seek independent, third-party assessments and, if available, certification of conformance to and effectiveness of their selected SMS framework(s). Completion of the certification process is not expected at the SMS framework selection stage.
2. Regulatory Requirements
 - a. The SMS should indicate how the SMS meets the specific regulatory requirements found in 30 CFR 285.810.

- b. Some regulatory requirements relate to specific types of hazards, such as fire and remote control of the operations. This does not mean there needs to be a separate section or chapter in the SMS for each of the specific types of risk, only that the SMS description should point out where and how the management of those risks is covered.
- 3. Selection of Risk-focused Design and Operating Standards and Guidelines
 - a. Within the SMS framework, BSEE encourages Operators to adopt consensus-based standards/recommended practices and industry guidelines to address how to manage known and anticipated hazards and enhance the safety and environmental performance of all offshore activities. The use of consensus-based standards/recommended practices and industry guidelines allows all parties involved, including contractors and subcontractors, to benefit from the collective industry experience in developing safe practices, assessing identified hazards, establishing safeguards, and engaging in continual improvement.
 - b. Individual procedures do not need to be developed or adopted until the FIR is submitted to BSEE. Nevertheless, identifying consensus standards that will form the basis for safety-focused, task-specific procedures provides BSEE with a better understanding of how the Operator's SMS is expected to function.
- 4. Leadership Engagement
 - a. An Operator's SMS should describe the roles and responsibilities of senior leadership and all employees.
 - b. The SMS should also describe how senior leadership will promote activities supporting safety and improve buy-in to the fundamental importance of safety across all organizational levels
- 5. Contractor Management
 - a. As contractors will be used extensively throughout project development, from surveying work through the construction and operations phases, the SMS should outline the processes that the Operator will use to oversee and monitor the safety and conformance of contractor operations.
- 6. Hazard Identification and Risks Assessments
 - a. The SMS should describe and outline the hazard identification and risk assessment methodologies that will be used within the SMS.

7. Workforce Engagement

The SMS should describe:

- a. All formal training required to work during offshore construction and operations.
- b. How all workforce competency requirements will be identified.
- c. How all contractor workforce competency requirements will be identified.
- d. The process for control of work.

8. Auditing, Evaluation, and Improvement

- a. The SMS should outline the processes that the Operator will use to monitor and improve their SMS and safety performance.

CHAPTER 3.

SMS SHOULD MANAGE THE RISKS ASSOCIATED WITH EACH ACTIVITY

Operators must be prepared to demonstrate to BSEE that their SMS is ready to manage the hazards associated with the respective activity. [30 CFR 285.811]. Generally, a term and condition in the COP requires the Operator to provide BSEE with an updated description of the SMS before the beginning of each new relevant activity on the OCS.

Operators must also be prepared to demonstrate, to BSEE's satisfaction, that their SMS is functional and has been implemented before starting any new, relevant activity. [30 CFR 285.811].

Activities may be combined together and within a phase of work as described in the FIR submission to BSEE.

Timing of reviews prior to relevant phase:

Relevant phases can be determined using one of these two methods:

1. If a single FIR submission is made to BSEE, then:
 - a. Submit evidence to BSEE that the SMS is ready to manage the hazards associated with the work at every major phase of the project. Typically, major phases include site preparation, cable installation, substation and foundation installation, wind turbine and foundation installation, operations and maintenance of the substations and turbines, and decommissioning.
 - b. BSEE will review the SMS evidence based on, but not limited to, the criteria listed below to determine if the SMS is functional.
2. If multiple FIR submissions (e.g., site clearance, cables, wind turbine generator, offshore substation) are made to BSEE, then:
 - a. Prior to the start of the work reviewed in the FIR, the Operator must submit evidence to BSEE that the SMS is functional and ready to manage the associated risks.
 - b. BSEE will review the SMS evidence based on, but not limited to, the criteria listed below to determine if the SMS is functional.

Evidence of SMS Functionality

1. SMS and Associated Documentation
 - a. The SMS documents provide the framework and structure for safety management. These documents are expected to be dynamic. As each SMS evolves, evidence of what has changed and why it changed can demonstrate that the SMS is functioning.
 - b. Sharing procedures, policies, and checklists can also demonstrate the functionality of the SMS.
2. Leadership Engagement
 - a. The active commitment to safety from the Operator's leaders at all levels is critical to the success of the SMS. Leaders' actions dictate and demonstrate the direction, expectations, and acceptable behaviors to the workforce and influence all aspects of safety performance.
3. Contractor Management
 - a. Contractors will perform a significant portion of work offshore, especially during construction activities. Therefore, the Operator's oversight of the Contractor's work (and the Contractor's SMS) and communication are key drivers to a safe project.
4. Hazard Identification and Risks Assessment
 - a. A major focus of any SMS is the identification of hazards and the evaluation of risk controls.
 - b. Each project phase comes with new activities, which may create new hazards or change the dynamics for previously managed risks.
 - c. New contractors and new contractor risk assessments may be required when a new project phase begins.
5. Risk Controls and Planning
 - a. The SMS should identify control actions based on risk assessment.
 - b. To be effective, these controls must be implemented and communicated. [30 CFR 285.810(a)].
6. Workforce Engagement
 - a. A well-trained and competent workforce (employees and contractors) is needed to conduct safe operations.

- b. Using the appropriate tools provided in the SMS, personnel should be able to identify risks and the appropriate control measures needed to reduce those risks associated with their job activities.

7. Evaluation and Improvement

- a. Procedures and methods should be established to monitor, test, audit, perform corrective actions, and make continual improvements to their SMS. Monitoring the performance of the SMS should include the use of key performance indicators and measures of conformance. [see 30 CFR 285.810(e)].
- b. Regular testing of SMS components, including remote shut-down and emergency response procedures and other applicable SMS elements, should be based on a company's responsibilities and operations.
- c. Routine and recurring future assessments of the continued effectiveness of implemented risk controls should be demonstrated to help drive continual improvement.

8. Emergency Response Plan (ERP)

- a. An ERP should describe how Operators prepare for and respond to an incident, both natural and man-made, that threatens life, property, or the environment.

9. Oil Spill Response Plans (OSRP)

- a. Operators of offshore facilities on the OCS that handle, store, or transport oil will be required to have an approved OSRP before operations begin and must operate their facilities in accordance with that OSRP. BSEE will ensure that the Operator has developed a plan to quickly and effectively respond to a worst-case discharge from a facility to the maximum extent practicable. [30 CFR 254; 30 CFR 585.627(c)].

10. Regulatory Requirements

- a. The SMS should clearly indicate how it meets the specific component requirements found in 30 CFR 285.810.

11. Use of Standards

- a. Any selected consensus-based standards and industry guidelines for the safety and environmental performance of offshore activities should be clearly identified.
- b. Individual safety processes should be developed and implemented in accordance with the standards selected.

CHAPTER 4.

THE ROLE AND AVAILABILITY OF SAFETY STANDARDS

Operators who are developing an SMS should incorporate into their SMS consensus-based or widely accepted standards (or recommended practices) critical to SMS success. Large segments of the workforce are also likely to be familiar with them, which can ease their adaptation to U.S. OCS renewable energy operations. Further, referencing recognized and published standards in the SMS will help BSEE to understand how an Operator expects to achieve its specific SMS objectives. If standards are available, but not used, the Operator should be able to demonstrate to BSEE that their selected approaches will safely manage the risks.

BSEE's expectations regarding the use of standards are as follows:

1. Where standards do not exist, are not relevant, or are not yet available: The Operator performing or overseeing a specific operation has the responsibility to determine how to safely perform an operation when a standard approach is not known or defined. The Operator should explain how and why its proposed approach will be safe, how it came to that decision, and how it will monitor the operation.
2. Incorporation of industry guidelines as available: Various industry groups continually develop guidelines that assist in managing risks as trends arise or observations are made. These guidelines provide a framework for how Operators and contractors can approach operational challenges and should be analyzed and considered for incorporation when suitable.
3. Using updated standards: Reliance on consensus-based industry standards will promote frequent and reliable improvements in the safety of all operations as advances in technology and management science are reflected in the updated standards and then adopted by the industry. Updated standards should be evaluated for changes before being adopted.