

Date: October, 2022

BSEE Funding Source or Author's Division: Office of Offshore Regulatory Programs

Emerging Technologies Branch

45600 Woodland Road Sterling, VA 20166

Title: Evaluation of Technology Assessment (TAP) Project 799.

Subject and Purpose: The subject of this study is "Peer Review of the Renewable Energy Fire Protection Systems Study". This peer review aims to verify the scientific and technical merit of the assumptions, inputs, methodologies, and results. This study evaluated the available options and performance of both passive and active fire protection and fire suppression systems.

The study was designed to provide an understanding of fire systems equipment, interactions, applications, applicable design criteria, and effectivity of their use in the offshore wind energy industry; to include fuel source and electrical fires. The study also assessed current industry standards, practices, guidelines, and/or regulations (global) related to fire safety systems use and testing (qualification). Understanding of available systems and their functionality will provide DOI the necessary information when inspecting and reviewing facility plans, which will help ensure safe operations and protect the environment. This peer review will evaluate and assess the TAP 799 project results.

Impact of Dissemination: This study is considered by BSEE to be highly influential scientific information. This study's findings may have a direct bearing on the methods, industry standards, best practices, and material selection for equipment utilized for high pressure and high temperature offshore oil and gas operations. The study's results may suggest the need for revisions of respective industry standards and could affect how BSEE and industry interpret those standards. The results from this study are important for new projects in deeper waters offshore.

Timing of Review: September 2022 – May 2023 (Total peer review process of not more than 8 months is desired for this project.)

Manner of Review, Selection of Reviewers, and Nomination Process:

This peer review shall be conducted through the contract FWS BPA Process. The selected peer reviewers shall achieve an optimum level of expertise across the spectrum of issues, balance and independence while minimizing any potential conflicts of interest.



Primary criteria for peer reviewers include the following:

- Mechanical Engineering, Electrical Engineering, Fire Protection Expertise.
- Practical experience and knowledge specific to Industrial Safety, Utility Grade Power Generation, Wind Energy Generation, Offshore Energy Production.

The secondary tier of criteria should include the following:

- At least one from inside of the wind industry
- At least one from outside of the wind industry

Reviewers may be selected from academia, industry, and federal government. The group of reviewers shall not include multiple reviewers from the same affiliation and shall strive to include various perspectives on the issue considered.

Expected Number of Reviewers:

Three reviewers, plus contractor oversight, and writing personnel.

Requisite Expertise:

- Mechanical Engineering, Electrical Engineering,
- Fire Protection Expertise.
- Practical experience and knowledge specific to Industrial Safety, Utility Grade Power
- Generation, Wind Energy Generation, Offshore Energy Production.

Opportunity for Public Comment:

The report is available on BSEE's Peer Review website located here: <u>BSEE Renewable Energy</u> <u>Fire Protection Systems</u> BSEE welcomes public comment, especially from those with experience with fire protection and wind energy topics. BSEE invites the public to comment by December 30, 2022. Commenters, please provide the following information: Name, Contact (phone/email), Affiliation, to <u>ETBPeerReviewRP@bsee.gov</u>.

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