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| Project Number: | 686 |
| Category: | Inspection/Safety |
| Date: | June 2013 |
| Subject: | <i>Regulating Worker Safety in Renewable Energy Operations on the OCS</i> |
| Performing Activity: | Transportation Research Board |
| Principal Investigator: | James C. Card |
| Contracting Agency: | Bureau of Safety and Environmental Enforcement |
| Summary: | <p>This study examined the impact of BOEM’s worker safety program in the absence of U.S. Coast Guard (USCG) involvement and any potential implications of working with FERC and various electrical grid operators. The study also examined the role of OSHA in regulating worker safety for renewable energy operations on the OCS. The Federal Energy Regulatory Commission has permitting authority for hydrokinetic projects on BOEM-issued leases on the OCS, and this study explored FERC’s role in regulating worker safety in this area.</p> <p>The study identified workplace risks involved in renewable energy operations and gaps in current regulations and recommended additional areas of workplace safety regulation deemed necessary. Specifically, the report</p> <ul style="list-style-type: none"> • Identified unique risks to worker health and safety on wind farms, as compared with oil and gas operations on the OCS; • Identified any gaps or overlaps in jurisdictional authority; and • Evaluated the adequacy of existing regulations and recommend enhancements to regulations for worker health and safety on OCS wind farms. |
| Key Findings: | <ul style="list-style-type: none"> • Under the authority of Section 388 of the Energy Policy Act of 2005, BOEM is responsible for regulating worker safety on offshore wind farms on the OCS. • The Bureau of Ocean Energy Management’s intent to enforce worker health and safety regulations for wind energy by requiring the lessee to submit a description of an SMS preempts OSHA enforcement of its regulations on the OCS, as established by Section 4(b)(1) of the Occupational Safety and Health Act. • The USCG declared itself a cooperating agency for renewable energy activities, allowing BOEM to be the lead agency. • A well-developed SMS, supplemented by details governing the control of specific hazards, is an important mechanism that allows an organization to continually improve its health and safety performance. • Some of the safety and environmental management system (SEMS) requirements for the offshore oil and gas industry would |

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| | <p>be appropriate for offshore wind farm worker health and safety and could be adapted to regulations for offshore wind installations. However, the overall risk to the health and safety of workers and to the environment associated with an offshore oil and gas platform is greater than that associated with an offshore wind turbine.</p> <ul style="list-style-type: none"> • A memorandum of agreement (MOA) exists between BOEM and USCG, and a memorandum of understanding (MOU) exists between USCG and OSHA. However, the memoranda are unclear as to which health and safety regulations will be enforced (and by whom) and do not adequately cover worker health and safety on OCS wind farms. |
| Recommendations: | <ul style="list-style-type: none"> • With the help of stakeholders, BOEM should undertake rulemaking and adopt a full SMS rule at a level of detail comparable with that of SEMS for the oil and gas industry. • BOEM should lead stakeholders in developing clear SMS standards, guidelines, or recommended practices for offshore wind energy facilities, similar to API RP 75 or SEMS that may be adopted by reference. • Any rulemaking should require the use of human factors engineering (HFE) and prevention through design (PtD) elements in the design process and should encompass all activities that the lessee and its contractors undertake. • Any new rule should require the lessee to submit the resulting SMS to BOEM to review. • BOEM should examine its MOA with USCG, and USCG should review its MOU with OSHA in light of the potential development of OCS renewable energy projects. The updates of both memoranda should set forth clearly defined health and safety roles for each agency and indicate which standards will apply for all phases, regardless of jurisdictional boundary. A tripartite MOU could provide the most clarity. • BOEM should enlist the help of industry and program stakeholders in researching and developing standards for key performance indicators (KPIs) and in collecting, storing, and publishing this information. • BOEM should require organizations operating on the OCS to electronically submit all internal audit plans, which should also include any relevant KPIs. |
| Subsequent Studies/Activities: | <ul style="list-style-type: none"> • A workshop is suggested to discuss the specifics of implementing these recommendations. |
| Report Link: | <p>AA: Worker Health and Safety on Offshore Wind Farms SR 310_NAP Final</p> |