BSEE’s Offshore Renewable Energy Program

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“Offshore Wind Jurisdictional Authorities: Who is Who and What do They Do?”

Gulf of Mexico Intergovernmental Renewable Task Force Meeting

June 15, 2021

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”
BSEE’s Renewable Energy Role

BOEM has looked to BSEE as an authority on safety and operational issues for the renewable energy program. BSEE retains the expertise in these areas. BOEM is communicating to the current offshore wind lessees that BSEE is acting on behalf of BOEM in connection with the following functional areas:

<table>
<thead>
<tr>
<th>Environmental, workplace and process safety management, including development and oversight of Safety Management Systems</th>
<th>Incident reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspections</td>
<td>Investigations</td>
</tr>
<tr>
<td>Decommissioning and site clearance, including plan review</td>
<td>Verification activities, including Certified Verification Agent responsibilities</td>
</tr>
<tr>
<td>Facility and equipment maintenance</td>
<td>Structural assessments</td>
</tr>
<tr>
<td>Oil spill preparedness</td>
<td>Environmental compliance</td>
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<tr>
<td>All matters involving the safety of personnel</td>
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Key Developments

- **In July 2020**, Letter of Agreement (LOA) signed outlining the cooperation between BOEM and BSEE for processing renewable energy incident reports and BSEE’s lead in managing incidents, incident data, and conducting investigations. BOEM informed all 16 current renewable energy lease holders, clarifying BOEM and BSEE’s roles for oversight of, and enforcement activities concerning offshore wind development.

- **In December 2020**, BSEE and BOEM signed a Renewable Energy Memorandum of Agreement (MOA) to outline the process through which BSEE will assist BOEM with matters for which BSEE has relevant experience and expertise. The MOA clarifies BSEE’s role in developing the safety and environmental compliance functions of the renewable energy program that are critical to BOEM’s management of the program’s planning and development.

- **BOEM and BSEE** agree that the offshore renewable energy industries, particularly the offshore wind industry, have now grown sufficiently to justify such a transfer of functions. There is expectation of a forthcoming transfer of safety and compliance responsibilities to BSEE.

- **Compliance assurance strategy** for offshore renewable energy industry
  - Developing a program that promotes a culture of safety and environmental stewardship with a focus on continuous improvement and ensuring workers are empowered to identify, report, and remedy unsafe conditions and environmental concerns.
    - Inspection philosophy
    - Health, Safety and Environmental guidance document
    - Promote industry data sharing
  - Use the best, proven methods available
DOI Policy Statement

In October 2019, the Department 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 requirements for OCS renewable energy facilities. Coast Guard has determined its occupational safety regulations do not apply to renewable energy facilities.

- DOI will consider the standards used in OSHA regulations as a baseline but can allow alternate standards to achieve the same level of safety.
Worker Safety

- The Global Offshore Wind Health and Safety Organization (G+) reported a total recordable injury rate of **5.5 injuries per million hours worked in 2019** (www.gplusoffshorewind.com). In comparison, the 2019 recordable injury rate for the U.S. offshore oil and gas industry was **2.82 injuries per million hours worked**.

- OCS wind industry workers face unique challenges to maintain their safety and protect the environment.

- A commitment to job creation through rapid program development includes a commitment to ensuring those jobs are safe.

### Estimated Full Time Equivalent Personnel for 30 GW Planned OCS Wind Farm Development

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>8,550</td>
<td>17,963</td>
<td>25,575</td>
<td>32,441</td>
<td>31,800</td>
<td>31,125</td>
<td>30,488</td>
<td>29,888</td>
<td>29,325</td>
<td>20,213</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>375</td>
<td>1,875</td>
<td>4,388</td>
<td>8,100</td>
<td>12,413</td>
<td>16,575</td>
<td>20,738</td>
<td>24,750</td>
<td>28,763</td>
<td>32,663</td>
</tr>
<tr>
<td>Sum</td>
<td>8,925</td>
<td>19,838</td>
<td>29,963</td>
<td>40,541</td>
<td>44,213</td>
<td>47,700</td>
<td>51,225</td>
<td>54,638</td>
<td>58,088</td>
<td>52,875</td>
</tr>
</tbody>
</table>
Offshore Wind Safety Incidents
Looking to Europe for Lessons Learned in Safety Management

<table>
<thead>
<tr>
<th>WORK PROCESS</th>
<th>REPORTED INCIDENTS</th>
<th>RECORDABLE INJURIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting</td>
<td>93</td>
<td>8</td>
</tr>
<tr>
<td>Access Egress</td>
<td>91</td>
<td>22</td>
</tr>
<tr>
<td>Manual Handling</td>
<td>76</td>
<td>14</td>
</tr>
<tr>
<td>Routine Maintenance</td>
<td>63</td>
<td>10</td>
</tr>
<tr>
<td>Civil Works Onshore</td>
<td>51</td>
<td>3</td>
</tr>
<tr>
<td>Hand/Power Tools</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td>Working at Heights</td>
<td>41</td>
<td>1</td>
</tr>
<tr>
<td>Vessel Ops. (inc. jackups, barges)</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>Operating Plant/Machinery</td>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td>Transit by vessel</td>
<td>37</td>
<td>15</td>
</tr>
</tbody>
</table>

*Represents 5.5 recordable injuries per 1 million hours worked in 2019.*

Images are not shown to scale.

Data Source: G+ Global Offshore Wind Health and Safety Organization, 2019 incident data report and dashboard.
www.splusoffshorewind.com

*In comparison, the CY2019 recordable injury rate for the U.S. offshore oil and gas industry was 2.82 injuries per million hours worked.*
BSEE is developing HSE management guidelines for offshore wind construction, installation, and operations activities.
  - Offshore wind industry requested clarification
  - Lack of industry guidelines, standards and practices

- Risks and Performance-based Regulation
- SMS Requirements and Guidance
- Role and Availability of Standards
- Demonstrating a Functional SMS
- Monitoring and Reporting
- The SMS defines how “you” will ensure safety
Coast Guard MOU

New renewable energy Memorandum of Understanding (MOU) with USCG

- Serve as a functional guide to DOI, USCG, industry
  - Outlines the agencies’ authorities, responsibilities, and thresholds for action.
  - Provide stakeholders with clarification on agency roles and responsibilities
    - Worker health and safety
    - Transfer points
    - Search and rescue

- Replace BOEMRE/USCG OCS-06 MOA (July 2011)
  - Content of OCS-06 detailing cooperation between agencies for offshore renewable energy development (navigational risk assessment) will be included as an enclosure in the new MOU

- BSEE has lead role for drafting the new MOU and enclosure
  - BSEE SME’s are researching additional issues specific to renewable energy operations
  - Working with USCG Office of Operating and Environmental Standards and Prevention Working Group
Synergies: Offshore Wind and Oil and Gas

- DOE Wind Vision estimates 76,000 – 80,000 full time equivalent jobs from offshore wind by 2030.

- There are commonalities between oil and gas and offshore wind, allowing for O&G industry employees to apply their skill sets to renewable energy with minimal re-training.

- Downturns in the O&G industry may be mitigated by offshore wind (use of ports, engineering and design firms, supply chain, and even MODUs and installation vessels in the future).
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