Offshore Operators Committee Engagement with BSEE on Decommissioning of Pipeline Related Infrastructure in Water Depths Beyond 182-meters

Evan H. Zimmerman, Executive Director
Who is OOC?

Technology, Safety and Collaboration in Offshore Energy Development since 1948
Offshore Operators Committee (OOC)

Executive Subcommittee Members

1. Anadarko Petroleum Corp.
2. Arena Offshore, LP
3. BHP Billiton Petroleum (GOM), Inc
4. BP America
5. Chevron
6. Cox Oil
7. Diamond Offshore Drilling
8. Eni Petroleum US, LLC
9. EnVen Energy Ventures
10. Equinor US
11. ExxonMobil Production Company
12. Fieldwood Energy, LLC
13. Freeport McMoRan
14. J. Connor Consulting
15. LLOG Exploration Company, LLC
16. Murphy Expl. & Prod. Co. - USA
17. Shell Exploration & Production Co.
18. Talos Energy Company
19. W & T Offshore, Inc
OOC Engagement

Subpart J
- Platform Modifications
- BHP Control
- APRs
- Life Extension
- Civil Penalties

Decom
- Fluid in Lines
- Idle Iron

GOMR
- Inspections
- SWSC
- RBD
- Lifting Slings
- Subsea LD

PACR
- HQ

BSEE
- BOEM
- USC
- EPA
- USACE

HQ

USCG

EPA

USACE

PACR

HQ

SWSC

RBD

Lifting Slings

Subsea LD

Pipeline Related Infra.

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What is Pipeline Related Infrastructure?

... and Why Do I Care?
Pipeline Related Infrastructure

- Wellhead
- Subsea Tree
- Jumper
- Manifold
- Umbilicals
- Flying Leads
- Foundations
- Umbilical Termination Assembly

Credit: FMC
BSEE & GOM Policy

- Deepwater Field Life Cycle
- Increasing DIP Requests
- Need to Update Policy
- Public Commenting Period
- Finalizing Policy
BSEE Policy Insight

- **< 182m**
  - Minimal Subsea Development
  - Fishing
  - Sand Sediment Resources (Marine Minerals)
  - Renewables

- **182m - 800m**
  - Significant Subsea Development
  - Military Use
  - Limited Fishing (with bottom impact)
    - Desire for Additional Technical Input

- **800m +**
  - Significant Subsea Development
  - Limited Fishing (without bottom impact)
    - Desire for Additional Technical Input
February 25, 2019

Submitted via email and via www.regulations.gov

Ms. Lakeisha Harrison
Chief, Regulations and Standards Branch
Bureau of Safety and Environmental Enforcement
45600 Woodland Road
Sterling, Virginia 20166

RE: Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Request for Information ("RFI") Regarding Potential Impacts of Decommissioning-in-Place ("DIP") of Pipeline-Related Infrastructure in Deepwater
General Recommendations

1. 800-meters and beyond DIP does not obstruct other uses of OCS
2. Extension of limit to 550-meters
3. DIP with heights of 11-meters ok 182 meters and beyond
4. Utilize risk-based & environmental cost/benefit analysis for 182 to 800 meter depths
Assessment Methodology

- DIP Application
  - 182m – 800m
    - Simplified
  - 800m +
    - Detailed
    - Simplified
Assessment Methodology - Simplified

1. Remove Obstructing & Simple Items

2. DIP Non-Obstructing, Habitat & Risky Items
Assessment Methodology - Detailed

**Negative & Positive Impact from Removal**

- Loss of habitat
- Uncertainty created safety risk
- Emissions from activity
- Etc.

**Positive Impact by DIP**

- Ease of removal
- Reduced obstruction
- Etc.

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Technology, Safety and Collaboration in Offshore Energy Development since 1948
Assessment Methodology – Safety Risk

1. Use of equipment at or near its safe working limits;
2. Conducting removal operations in proximity to other nearby offshore infrastructure, including crossings;
3. The presence of mud or cuttings buildup that may be present on the pipeline-related infrastructure;
4. Damaged infrastructure to be decommissioned;
5. Uncertainty associated with infrastructure that has sustained damage due to a hurricane or mudslide event; and
6. Potential trapped pressure in pipeline-related infrastructure that may pose safety risk to personnel.
Assessment Methodology – Environmental Risk

- Lophelia Growth
- Spider Crab
- 618-meter (2029-feet) depth
Other OCS Uses Evaluation

- Depths Beyond 182m (600-feet)
- Maximum 11m (35-feet) Off Seafloor
- Sparse Small Footprint
## Other OCS Uses

<table>
<thead>
<tr>
<th>Activity</th>
<th>Impact</th>
<th>Not Impacted 182m+</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>Recreational</td>
<td></td>
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<tr>
<td>Wildlife Viewing</td>
<td>Most activity</td>
<td>Limited 250m - 550m</td>
<td>Wildlife Viewing</td>
</tr>
<tr>
<td>Boating</td>
<td>100m and less</td>
<td>Not Impacted</td>
<td>Boating</td>
</tr>
<tr>
<td>Diving</td>
<td>Assumption = Not Impacted 182m+</td>
<td></td>
<td>Diving</td>
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<tr>
<td>Watersports</td>
<td></td>
<td></td>
<td>Watersports</td>
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<tr>
<td>Fishing</td>
<td></td>
<td>Not Impacted 800m+</td>
<td>Fishing</td>
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<tr>
<td>Not Impacted 182m+</td>
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<tr>
<td>Commercial Fishing</td>
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<td></td>
<td>Commercial Fishing</td>
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<tr>
<td>Military</td>
<td>No Notice of Impact beyond 182m</td>
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<td>Military</td>
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<tr>
<td>Navigation</td>
<td>No Notice of Impact beyond 182m</td>
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<td>Navigation</td>
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<tr>
<td>Oil &amp; Gas Leasing</td>
<td>Limited Impact to New Development</td>
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<td>Oil &amp; Gas Leasing</td>
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<tr>
<td>Renewable Energy</td>
<td>Likely Floating in 182m+</td>
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<td>Renewable Energy</td>
</tr>
<tr>
<td>Transportation &amp; Communications</td>
<td>Coordination with Crossings</td>
<td></td>
<td>Transportation &amp; Communications</td>
</tr>
<tr>
<td>Marine Minerals</td>
<td>Significant Sand Resources</td>
<td></td>
<td>Marine Minerals</td>
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<tr>
<td>Industrial or Military Dump Sites</td>
<td>Disruption Risk</td>
<td></td>
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</table>
## OCS Use - Recreational

<table>
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<th>No Impact 182m+</th>
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<tbody>
<tr>
<td>Wildlife Viewing</td>
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<td>Boating</td>
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<tr>
<td>Fishing</td>
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*www.theooc.org*
OCS Use – Commercial Fishing

- **No Impact 182m +**
  - Typical Trawling (100m)

- **Negligible Impact 182m +**
  - Rare Trawling (250-550m)

- **No Impact 182m +**
  - Deep Fishing 550m +
OCS Use – Military

No Impact
182m +

No Notice of Impact
OCS Use – Navigation

No Impact
182m +

No Notice of Impact
OCS Use – Oil & Gas Leasing

- No Impact 182m +
  - Future Well Siting
- Negligible Impact 182m +
  - Future Subsea Architecture
OCS Use – Renewable Energy

Negligible Impact 182m +

Future Device Location

Negligible Impact 182m +

Future Cabling
OCS Use – Transportation & Communication

- **No Impact 182m +**
  - Transportation

- **Negligible Impact 182m +**
  - Communication Cabling
OCS Use – Marine Minerals

No Impact
182m +

Sand Sediment Resources

No Impact
182m +

Other Marine Mineral Mining
OCS Use – Industrial or Military Dump Sites

No Impact
182m +

Not Dumping Near Infrastructure
Summary of OOC Comments

1. Transparent Risk & Environmental Evaluation Process
   - Simplified Method
   - Detailed Method

2. Negligible to No Impact on Future OCS Uses for Decommissioning In Place
Comment Letter References

1. GOM & Atlantic deep coral and commercial fishing depths study referencing the royal red shrimp. 
https://repository.library.noaa.gov/view/noaa/18065

2. Military dumping (types of military dumping done) and the depth range. 

3. Shrimp trawling depths 

4. Shelf’s silt deposits from Mississippi River 
https://pubs.er.usgs.gov/publication/70137845

5. Hierarchy of Control https://www.cdc.gov/niosh/topics/hierarchy/default.html

6. BOEM Lophelia II Missions https://www.boem.gov/Curriculum-Lophelia-II/
Related Topics

• Fluid in Lines
  – Discharge Allowed Under NPDES Permit
  – Not Covered by Permit After Decom
  – Waiting on Letter from EPA

• Idle Iron / Decom Timing
  – Campaign Approach
  – Well Plugging Priority
You Want to Know More?

The OOC Website

- Library of submitted comments
- ~50+ Public Items
- ~300+ Member Items
Questions?

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