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Submitted via email and via www.regulations.gov

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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

The Offshore Operators Committee (OOC), Louisiana Mid-continent Oil and Gas Association (LMOGA), and the National Ocean Industries Association (NOIA) (collectively, referred to hereafter as Industry) appreciate the opportunity to provide comments on the *Potential Impacts of Decommissioning-in-Place of Pipeline-Related Infrastructure in Deepwater*.

The OOC is an offshore oil and natural gas trade association that serves as a technical advocate for companies operating on the US Outer-Continental Shelf (OCS). Founded in 1948, the OOC has evolved into the principal technical representative regarding regulation of offshore oil and natural gas exploration, development, and producing operations. The OOC’s member companies are responsible for more than 90% of the oil and natural gas production from the OCS.

The NOIA is the only national trade association representing all segments of the offshore industry with an interest in the exploration and production of both traditional and renewable energy resources on the OCS. The NOIA membership comprises more than 250 companies engaged in a variety of business activities, including production, drilling, engineering, marine and air transport, offshore construction, equipment manufacture and supply, telecommunications, finance and insurance, and renewable energy.

LMOGA, founded in 1923, is a trade association exclusively representing all sectors of the oil and gas industry operating in Louisiana and the Gulf of Mexico. LMOGA serves exploration and production, refining, transportation, marketing and midstream companies as well as other firms in the fields of law, engineering, environment, financing and government relations. LMOGA’s mission is to promote and represent the oil and gas industry operating in Louisiana and the Gulf of Mexico by extending representation of our members in the Louisiana Legislature, state and federal regulatory agencies, the Louisiana congressional delegation, the media and the general public.

Industry respectfully submits these comments in response to BSEE's RFI on the Decommissioning-in-Place of pipeline-related infrastructure. In these comments, Industry will expound on the following recommendations:

- 1) BSEE should maintain its presumption that at ≥ 800 meters DIP does not obstruct other uses of the OCS, the environmental benefits outweigh the environmental costs of removal, and there is a strong safety case favoring DIP.
- 2) Industry believes BSEE could reasonably extend this presumption to ≥ 550 meters. Specifically, in its RFI BSEE indicated that water depths of ≥ 800 meters (2,625 feet) may be an appropriate depth at which to consider potentially less stringent requirements for deepwater DIP because that is the depth specified in § 250.1716 at which BSEE may waive the requirement for removal of wellheads. While Industry acknowledges BSEE's flexibility to waive the requirement for removal of wellheads at the specified depth and deeper, the information contained in this comment letter indicates that there is a significantly low-to-zero probability that the DIP of pipeline-related-infrastructure at depths shallower than 800 meters would cause any obstructions or other interference with uses of the OCS. Moreover, the environmental benefits of DIP and the environmental costs of removal, as well as the safety case for each, are wholly consistent with DIP at ≥ 800 meters. Therefore, Industry believes an appropriate tiering for the lowest stringency could reasonably start at 550 meters, consistent with the hypothetically possible, albeit improbable, obstruction or interference with other uses of the OCS – trawling for Royal Red Shrimp (discussed in detail below in Section II.A.2.).
- 3) Furthermore, it is Industry's conclusion that the information contained herein clearly indicates that the DIP of pipeline-related infrastructure – even manifolds that are 11 meters (35 feet) high – would not create a potential obstruction or interference with other uses of the OCS at depths between 182 meters and 550 meters – studies have shown that the presence of subsea kits have augmented fishing opportunities. Therefore, substantial deference should be given to the US Army Corp of Engineers and the US Department of Defense, and absent any noted concern at depths within this range, DIP by BSEE should be approved.
- 4) For depths shallower than BSEE's least-stringent tier, BSEE should make its derogation decisions by employing a risk-based, comparative analysis of the environment costs and benefits, the potential inferences to current and future uses of the OCS, and the safety consequences of DIP versus removal.

Lastly, when drafting these comments Industry considered the following representative pipeline-related infrastructure because they are typically used in Deepwater:

- Pipeline End Terminations (PLETs)
- Pipeline End Manifolds (PLEMs)
- Manifolds
- Jumpers
- Umbilicals
- Flying Leads
- Infield Pipelines
- Anchor holdbacks and foundations
- Concrete mattresses
- Cabling
- Umbilical termination assemblies (UTAs)

I. Comments and information related to whether DIP of pipeline valves and fittings or other pipeline-related infrastructure in Deepwater could increase or decrease safety or environmental risks as compared to decommissioning-by-removal

A. Assessment Methodology

Industry believes BSEE should develop transparent comparative analysis methodology to evaluate the net-consequence of DIP as compared to decommissioning by removal. In many cases, there are several important considerations that should be evaluated in order to minimize adverse environmental impacts and reduce safety related risks. This evaluation should include a balance of safety and environmental risk related considerations.

BSEE could enable a simplified evaluation where impact for decommissioning by removal would clearly have a negative impact, not requiring a detailed assessment. In water depths less than 800-meters, most cases could be completed by a simplified evaluation. In water depths beyond 800-meters, DIP would be presumed as the preferred method.

BSEE has previously taken approaches of establishing checklists for assessments, such as in NTL 2009-G23, Structural Assessment Before Moving a Platform Rig that establishes when more detailed information and analysis is required. This is similar to using a tiered approach by water depth for decommissioning in place and establishing when more detailed information and analysis is required.

In the sections below are some examples of the types of impacts that BSEE might include in their framework for comparative analysis. Industry presumes the infrastructure has been prepared for decommissioning as required by regulation or by departure or alternative compliance.

B. Safety Risk Related Considerations

With respect to personal injury and asset damage, there is an inherent risk in any industrial operation. As captured in Figure B.1, the safest and most effective control is to eliminate the hazards. Clearly then, the lowest risk of personal injury or asset damage is achieved by decommissioning-in-place the pipeline-related infrastructure (i.e., Elimination) and not decommissioning-by-removal (i.e., PPE).

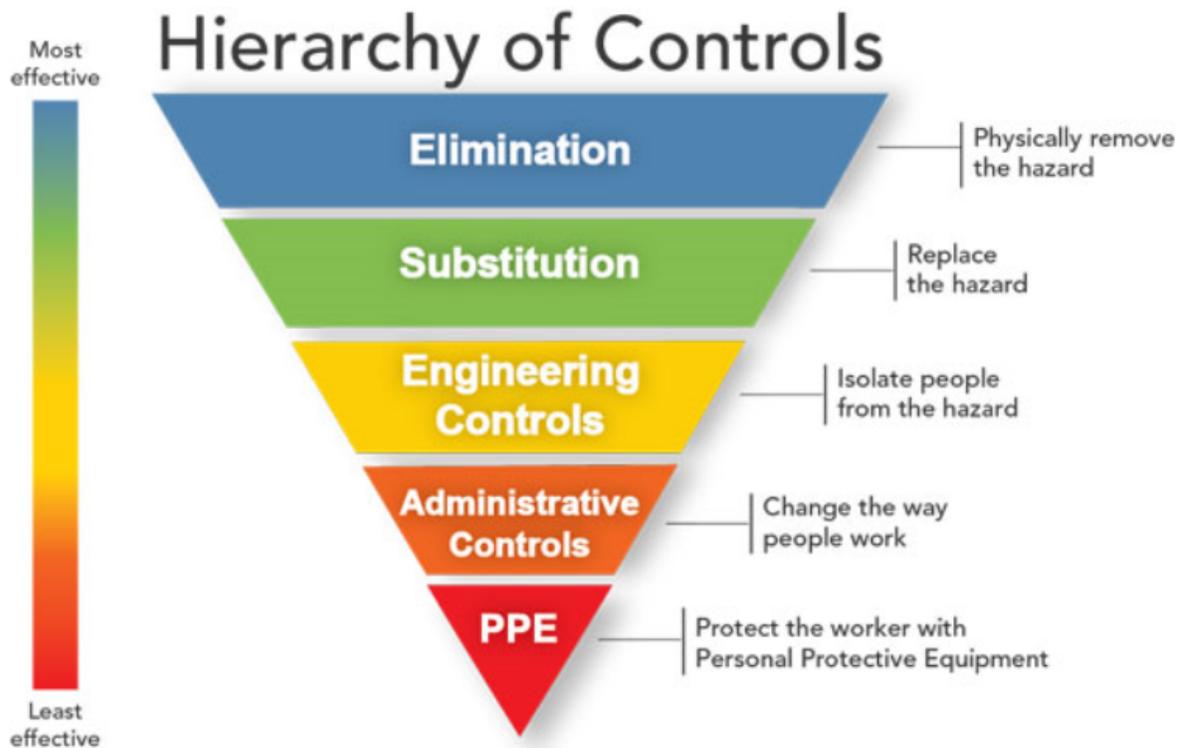


Figure B.1 The National Institute for Occupational Safety and Health's (NIOSH) Hierarchy of Controls

Specifically, there is a reduced number of hours of offshore and shore base work-related risk exposure associated with DIP as compared to decommissioning-by-removal. In instances where the disconnection and removal of components involve uncertainty, the unknown amounts of time and the unknown loads required to complete removal can significantly increase safety risks. These scenarios can greatly increase the number of the conditions in which they were initially installed may prove to be challenging to remove over time given site-specific considerations (e.g. sediment buildup and consolidation, etc.).

BSEE should consider a number of different risk factors when evaluating the potential safety impacts associated with decommissioning-by-removal, as compared to DIP:

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

C. Environmental Risk Related Considerations

The seafloor biological communities at depths ≥ 800 meters (or even ≥ 550 meters) is limited due to the predominant soft bottom habitat hard structure, due to the high rates of silty

sediment deposition from the Mississippi River and corresponding deposition by loop currents; however, the infrastructure on the seafloor at depths beyond 182 meters (600 feet) marine growth (Lophelia spp.) has enabled habitat and support related biological activity that would otherwise not have established itself in these areas.

Furthermore, DIP of pipeline-related infrastructure can have an environmental benefit, as regularly observed on footage taken by Remote Operated Vehicles (ROV) (see Figures C.1. – C.4). The diverse marine life that forms on the complex, angular shapes of pipeline-related infrastructure has been helpful to private and governmental research initiatives (e.g., the Lophelia II Missions) (see Figure C.1), and the removal of this pipeline-related infrastructure would permanently eliminate the marine habitats that take numerous years to form. Therefore, DIP of pipeline-related infrastructure can be presumed to have a net environmental benefit, as supported by ROV footage.



Figure C.1 Lophelia Growth on Pipeline-Related Infrastructure at 545-meters (1789-feet) Water Depth



Figure C.2 Lophelia Growth on Pipeline-Related Infrastructure at 618-meters (2029-feet) Water Depth



Figure C.3 Hydroids on Pipeline-Related Infrastructure at 619-meters (2030-feet) Water Depth

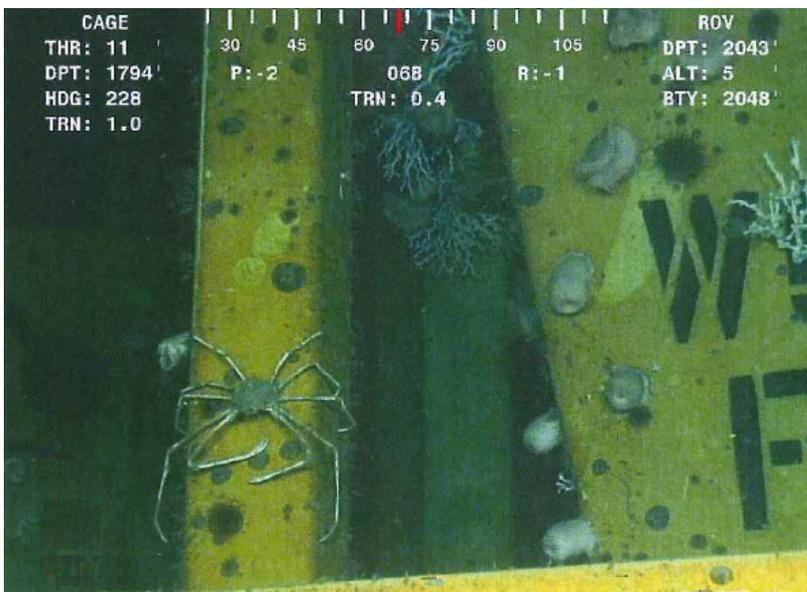


Figure C.4 Spider Crab on Pipeline-Related Infrastructure at 619-meters (2030-feet) Water Depth

Decommissioning-in-place substantially reduces air emissions. This amount would obviously vary depending on the site's distance from shore, the fuel type, and the vessel's engine efficiency; however, removal actions would also generate other related emissions from:

- ICE and air transportation of offshore workers (50 - 100 personnel per site),
- Dock support for these vessels during mobilization and demobilization, and land transportation of the decommissioned subsea equipment and/or any waste generated from disposal of the equipment itself.

Based on the above considerations, it's evident that the environmental costs created by the removal of pipeline-related infrastructure are substantially outweighed by the environmental benefits that are maintained by decommissioning that infrastructure in-place.

II. Comments and information related to whether DIP of pipeline valves and fittings or other pipeline-related infrastructure in deepwater could interfere with navigation, create an obstruction, or otherwise unduly interfere with present or future uses of the OCS

A. General Considerations

A typical subsea field set of infrastructure occupies an area of about 100 meters by 50 meters (1.2 acres, being roughly the size of a football field). In comparison, the typical deepwater OCS lease block size is 5,760 acres. Even the most complex offshore developments in water depths beyond 182 meters (600 feet) occupy far less than one half of a percent of the area within an offshore block (3 acres, being roughly the size of three football fields without end zones).

1. Recreational Use

The National Park Service recognizes uses such as wildlife viewing, boating, diving, paddle sports, watersports and fishing. DIP of infrastructure at or beyond water depths of 182 meters (600 feet) is not impactful to any of these recreational uses. Therefore, it should be presumed that there is no obstruction or interference with recreation uses of the OCS at these depths.

2. Commercial Fishing Use

Industry's review of available public data indicated that commercial shrimp trawling in the GOM is the only non-Oil and Gas (O&G) OCS use that occurs somewhat frequently at depths near 182 meters, while tapering off substantially at depths greater than this threshold. Moreover, in the GOM, most of the deepest commercial trawling targets white and pink shrimp at depths of 100 meters (328 feet) or less. The deepest trawling targets Royal Red Shrimp, at reported depth ranges from 250 meters to 550 meters (800 feet to 1,800 feet) (Perry and Larson 2004, Rezak et al. 1985, Alabama Sea Grant, 1987). Therefore, it should be presumed that there is no obstruction to commercial fishing at these depths of ≥ 550 meters. However, since commercial trawling depths can vary in the GOM at shallower depths, and those operations are mostly consolidated within common areas, BSEE may wish to take an alternative approach by defining specific zones of commercial trawling within each of the OCS planning areas for depths < 550 meters. These areas could be used by BSEE to trigger a deeper review of the potential interferences whereas BSEE would apply a less stringent review of pipeline-related infrastructure located outside those areas. A similar approach is applied by BOEM regarding marine mineral use (i.e., areas that they have defined as having significant sand sediment resources).

3. Military Use

Under all circumstances known to us, the US Department of Defense has not objected to DIP of pipeline-related infrastructure beyond 182-meters, and substantial deference should be given to a US Department of Defense determination whenever such determination is received by BSEE.

4. Navigation

Under all circumstances known to us, the US Army Corp of Engineers has not objected to DIP of pipeline-related infrastructure beyond 182-meters or found they obstruct with navigation in the OCS, and substantial deference should be given to a US Army Corp of Engineers determination whenever such determination is received by BSEE.

5. Oil & Gas Leasing

The most likely future use of the sea bottom in deep-water is for oil and gas production. When viewed in scale, it becomes apparent that these decommissioned sites pose an almost negligible impediment to future wells, pipelines and infrastructure. For example, to connect two subsea sites located two miles apart and to avoid a DIP subsea site situated between them, an otherwise straight pipeline would be longer by only 25 feet (to yield a 250 feet clearance by laying at a 10,000 feet radius bend to return to original alignment).

As it stands now, operators frequently work together when a new development needs to cross another operator's existing development.

Therefore, DIP of pipeline-related infrastructure does not pose any obstruction or interference with other O&G uses of the OCS, and any additional costs imposed on future O&G activities from the DIP of pipeline-related infrastructure would have a negligible impact on the costs, job complexity, safety, and time required to install new equipment. Moreover, Industry does not have reservations or concerns about the presence of DIP pipeline-related infrastructure for current or future OCS lease activities. Industry believes the presence of such DIP equipment is so infinitesimal that it would not negatively impact the valuation or usefulness of blocks.

6. Renewable Energy Use

These activities would bear the same consideration and footprint as O&G uses given the type of installations that would be used for O&G facilities and renewables facilities (e.g., fixed legged, floating, spar, anchoring and mooring, etc.). Correspondingly, the extremely small footprint of a typical subsea DIP site (again, being 1.2 acres) would not have any notable impact to renewable activities in the OCS, or adversely impact the valuation of an OCS block in future bids.

7. Transportation and Communication Use

There is a long history of coordination between various transportation and communication installation and operations projects in the OCS. Likewise, there is no notable impact to avoiding a DIP subsea site or crossing pipeline-related infrastructure (as discussed, only 25 feet of additional pipelines is required for an otherwise two-mile-long straight pipeline or cable). Furthermore, crossings and deviations are common expectations among the various industries that operate in the OCS, and companies have been successfully coordinating their activities and crossings for decades.

8. Marine Mineral Use

In the Gulf of Mexico marine mineral interest has been limited to sand sediment resources. BOEM has identified blocks that have "significant sand sediment resources" within the Gulf of Mexico. These resources are utilized for coastal and beach restoration and collected by dredging. Current US flagged dredging technology is capable of working in water depths up to about 100 meters (328 feet), and the largest dredging vessels in the world are only capable of operating in water depths up to a maximum of 155 meters (508 feet).

Therefore, DIP of pipeline-related infrastructure does not pose any obstruction or interference with marine mineral (sand sediment resource) uses of the OCS.

9. Industrial Or Military Dump sites or Archeological or Cultural Resources

Disruption of the seafloor by total removal could also create other unintended impacts. For example, removal operations could disrupt sensitive industrial or military dump sites, archeological or cultural resources.

Based on the above considerations, it's evident that decommissioning-in-place will not unduly interfere with present or future uses of the OCS.

B. Additional Considerations - Effect once DIP has been approved

BSEE issued NTL No. 2018-G03 effective December 11, 2018 to provide clarification and guidance to help ensure that idle infrastructure on active leases is decommissioned in a timely manner in accordance with regulation. This NTL provides guidance regarding timeframes within which decommissioning of wells and platforms that are no longer useful for operations are to be performed because the regulations do not expressly prescribe such timeframes for infrastructure on *active* leases (i.e., leases that have not expired or terminated). The regulations are clear, however, as to the timeframe within which decommissioning of wells and infrastructure is to be performed on leases and rights-of-way that have expired, terminated or been relinquished. Specifically, pursuant to 30 CFR §§ 250.1725 and 250.1010, unless otherwise extended or waived by the Regional Supervisor, decommissioning of wells and infrastructure on expired, terminated or relinquished leases and rights-of-way is to be performed within one (1) year after the termination of such lease or right-of-way.

Given these guidelines and regulations regarding (i) decommissioning obligations on active leases and rights-of-way and (ii) decommissioning on expired, terminated or relinquished leases and rights-of-way, should BSEE approve an Operator's request to decommission infrastructure in place on an active lease or right-of-way, that decision should not be revisited by BSEE once that lease or right-of-way terminates, expires or is otherwise relinquished, unless BSEE has clearly demonstrated a justified need for removal.

By adopting this approach, BOEM will help ensure that lessees can adequately plan for their decommissioning obligations, and it will avoid BOEM facing a lessee(s) that has inadequate funds on hand to meet the unanticipated decommissioning obligation(s). It will also prevent a lessee from facing a near-term, complex, and unexpected removal operation that increases the hazards of personal injury and asset damage.

III. Conclusion

It is Industry's conclusion from the above assessment that DIP at ≥ 800 meters (and even ≥ 550 meters) (i) does not obstruct other uses of the OCS, (ii) leads to environmental benefits that clearly outweigh the environmental costs of decommissioning-by-removal, and (iii) decreases the safety and environmental risks otherwise created by decommissioning-by-removal. Further, Industry's above assessment shows that at depths of 182 meters (600 feet) or more, DIP would still not interfere with navigation, create an obstruction, or otherwise unduly interfere with present or future uses of the OCS. Instead, DIP at these depths would not obstruct navigation or interfere with other OCS uses, and would result in the same environmental benefits of marine growth, the elimination of air emissions, and the elimination of hazards to persons and assets as DIP of pipeline-related infrastructure in deeper depths.

Sincerely,



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