4310-VH-P

4310-MR-P

DEPARTMENT OF THE INTERIOR

Bureau of Safety and Environmental Enforcement

30 CFR Parts 250 and 254

Bureau of Ocean Energy Management

30 CFR Part 550

[Docket ID: BSEE-2013-0011; 15XE1700DX EX1SF0000.DAQ000 EEEE500000]

RIN: 1082-AA00

Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf

AGENCIES: Bureau of Safety and Environmental Enforcement (BSEE);

Bureau of Ocean Energy Management (BOEM), Interior.

ACTION: Proposed rule.

SUMMARY: The Department of the Interior (DOI), acting through BOEM and BSEE, proposes to revise and add new requirements to regulations for exploratory drilling and related operations on the Outer Continental Shelf (OCS) seaward of the State of Alaska (Alaska OCS). The Alaska OCS has the potential to be an integral part of the Nation's "all of the above" domestic energy strategy. This proposed rule focuses solely on the OCS within the Beaufort Sea and Chukchi Sea Planning Areas (Arctic OCS). The Arctic region is characterized by extreme environmental conditions, geographic remoteness, and a relative lack of fixed infrastructure and existing operations. The proposed rule is designed to ensure safe, effective, and responsible exploration of Arctic OCS oil and gas

resources, while protecting the marine, coastal, and human environments, and Alaska Natives' cultural traditions and access to subsistence resources.

DATES: Submit comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. BOEM and BSEE may not fully consider comments received after this date. You may submit comments to the Office of Management and Budget (OMB) on the information collection burden in this proposed rule by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The deadline for comments on the information collection burden does not affect the deadline for the public to comment to BOEM and BSEE on the proposed regulations.

ADDRESSES: You may submit comments on the rulemaking by any of the following methods. For comments on this proposed rule, please use Regulation Identifier Number (RIN) 1082-AA00 in your message. For comments specifically related to the draft Environmental Assessment conducted under the National Environmental Policy Act of 1969 (NEPA), please refer to NEPA in the heading of your message. *See also,* Public Availability of Comments under Procedural Matters.

- Federal eRulemaking Portal: http://www.regulations.gov. In the Search box, enter BSEE-2013-0011, then click search. Follow the instructions to submit public comments and view supporting and related materials available for this rulemaking. BOEM and BSEE will post all submitted comments.

- Mail or hand-carry comments to the DOI, BSEE: Attention: Regulations and Standards Branch, 381 Elden Street, HE3314, Herndon, Virginia 20170-4817. Please reference "Oil and Gas and Sulphur Operations on the Outer Continental Shelf—

Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf," 1082-AA00 in your comments, and include your name and return address.

- Send comments on the information collection of this rule to: Interior Desk Officer 1082-AA00, Office of Management and Budget; 202-395-5806 (fax); e-mail: OIRA_Submission@omb.eop.gov. Please also send copies to BSEE by one of the means previously described.

FOR FURTHER INFORMATION CONTACT: Mark E. Fesmire, BSEE, Alaska Regional Office, mark.fesmire@bsee.gov, (907) 334-5300; John Caplis, BSEE, Oil Spill Response Division, john.caplis@bsee.gov, (703) 787-1364; or David Johnston, BOEM, Alaska Regional Office, david.johnston@boem.gov, (907) 334-5200. To see a copy of either information collection request submitted to OMB, go to http://www.reginfo.gov (select Information Collection Review, Currently Under Review).

SUPPLEMENTARY INFORMATION:

Executive Summary

Although there is currently a comprehensive OCS oil and gas regulatory program, DOI engagement with stakeholders reveals the need for new and revised regulatory measures for exploratory drilling conducted by floating drilling vessels and "jackup rigs" (collectively known as mobile offshore drilling units or MODUs) on the Arctic OCS. The United States (U.S.) Arctic region, as recognized by the U.S. and defined in the U.S. Arctic Research and Policy Act of 1984, encompasses an extensive marine and terrestrial area, but this proposed rule focuses solely on the OCS within the Beaufort Sea and Chukchi Sea Planning Areas.

BOEM and BSEE have undertaken extensive environmental and safety reviews of potential oil and gas operations on the Arctic OCS. These reviews, along with concerns expressed by environmental organizations and Alaska Natives, reinforce the need to develop additional measures specifically tailored to the operational and environmental conditions of the Arctic OCS. After considering the input provided by various stakeholders and DOI's direct experience from Shell's 2012 Arctic operations, BOEM and BSEE have concluded that additional exploratory drilling regulations would enhance existing regulations and would be appropriate for a more holistic Arctic OCS oil and gas regulatory framework.

This proposed rulemaking is intended to provide regulations to ensure Arctic OCS exploratory drilling operations are conducted in a safe and responsible manner that would take into account the unique conditions of Arctic OCS drilling and Alaska Natives' cultural traditions and need to access subsistence resources. The Arctic region is known for its oil and gas resource potential, its vibrant ecosystems, and the Alaska Native communities, who rely on the Arctic's resources for subsistence and cultural traditions. The region is characterized by extreme environmental conditions, geographic remoteness, and a relative lack of fixed infrastructure and existing operations. These are key factors in considering the feasibility, practicality, and safety of conducting offshore oil and gas activities on the Arctic OCS.

This proposed rule would add to, and revise existing regulations in, 30 CFR Parts 250, 254, and 550 for Arctic OCS oil and gas activities. The proposed rule would focus on Arctic OCS exploratory drilling activities that use MODUs and related operations during the Arctic OCS open-water drilling season. This proposed rule would

address a number of important issues and objectives, including ensuring that each operator:

1. Designs and conducts exploration programs in a manner suitable for Arctic OCS conditions;

2. Develops an integrated operations plan (IOP) that would address all phases of its proposed Arctic OCS exploration program and submit the IOP to DOI, acting through its designee, BOEM, at least 90 days in advance of filing the Exploration Plan (EP);

3. Has access to, and the ability to promptly deploy, Source Control and Containment Equipment (SCCE) while drilling below, or working below, the surface casing;

4. Has access to a separate relief rig located so that it could timely drill a relief well in the event of a loss of well control under the conditions expected at the site;

5. Has the capability to predict, track, report, and respond to ice conditions and adverse weather events;

6. Effectively manages and oversees contractors; and

7. Develops and implements an Oil Spill Response Plan (OSRP) that is designed and executed in a manner suitable for the unique Arctic OCS operating environment and has the necessary equipment, training, and personnel for oil spill response on the Arctic OCS.

The proposed rule would further the Nation's interest in exploring frontier areas, such as those in the Arctic region, and would establish specific operating models and requirements for the extreme, changing conditions that exist on the Arctic OCS. The proposed regulations would require comprehensive planning of operations, especially for emergency response and safety systems. The proposed rule would seek to institutionalize a proactive approach to offshore safety. A goal of the proposed rule is to identify

possible vulnerabilities early in the planning process so that corrections could be made in order to decrease the possibility of an incident occurring. The requirements in the proposed rule are also designed to ensure that those plans would be executed in a safe and environmentally protective manner despite the challenges presented by the Arctic.

Table of Contents

List of Acronyms and References

I. Introduction

A. Resource Potential

B. Integrated Arctic Management

C. Overview of Proposed Regulations

D. Potential Costs and Benefits of Proposed Rule

II. Background

A. Statutory and Regulatory Overview

B. Factual Overview of the Alaska OCS Region

C. Partner and Stakeholder Engagement in Preparation for This Proposed Rule

D. Expected Benefits Justifying Potential Costs

III. Proposed Regulations for Arctic OCS Exploratory Drilling

A. Measures That Address Recommendations

B. IOP Requirement

C. SCCE and Relief Rig Capabilities

D. Planning for the Variability and Challenges of the Arctic OCS Conditions

E. Arctic OCS Oil Spill Response Preparedness

F. Reducing Pollution from Arctic OCS Exploratory Drilling Operations

G. Oversight, Management, and Accountability of Operations and Contractor Support

IV. Section-By-Section Discussion

A. Definitions (§§ 250.105, 254.6, and 550.105)

B. Additional Regulations Proposed by BOEM

C. Additional Regulations Proposed by BSEE

D. Arctic Exploratory Drilling Process Flowchart

V. Conclusion

VI. Procedural Matters

A. Regulatory Planning and Review (E.O. 12866 and E.O. 13563)

B. E.O. 12866

C. E.O. 13563

D. Regulatory Flexibility Act

E. Unfunded Mandates Reform Act of 1995 (UMRA)

F. Takings Implication Assessment

G. Federalism (E.O. 13132)

H. Civil Justice Reform (E.O. 12988)

I. Consultation with Indian Tribes (E.O. 13175)

J. E.O. 12898

K. Paperwork Reduction Act (PRA)

L. National Environmental Policy Act of 1969 (NEPA)

M. Data Quality Act

N. Effects on the Nation's Energy Supply (E.O. 13211)

O. Clarity of Regulations

P. Public Availability of Comments

LIST OF ACRONYMS AND REFERENCES			
60-Day Report	Report to the Secretary of the Interior, Review of Shell's 2012 Alaska Offshore Oil and Gas Exploration Program	MODU	Mobile Offshore Drilling Units
AIS	Automatic Identification System	NARA	National Archives and Records Administration
Alaska OCS	OCS Seaward of the State of Alaska	National Arctic Strategy	President's National Strategy for the Arctic Region issued May 2013
ANCSA	Alaska Native Claims Settlement Act	NEPA	National Environmental Policy Act of 1969
APD	Application for Permit to Drill	NOAA	National Oceanic and Atmosphere Administration
API	American Petroleum Institute	NPDES	National Pollutant Discharge Elimination System
APM	Application for Permit to Modify	OCS	Outer Continental Shelf
Arctic OCS	OCS within the Beaufort Sea and Chukchi Sea Planning Areas	OCSLA	Outer Continental Shelf Lands Act
ASP	Audit Service Provider	OMB	Office of Management and Budget
BOEM	Bureau of Ocean Energy Management	OPA	Oil Pollution Act of 1990
BOP	Blowout Preventer	OSRP	Oil Spill Response Plan
BP	BP Exploration (Alaska), Inc.	PPCS	Pre-Positioned Capping Stack
BSEE	Bureau of Safety and Environmental Enforcement	PRA	Paperwork Reduction Act
CAP	Corrective Action Plan	RFA	Regulatory Flexibility Act
CFR	Code of Federal Regulations	RIA	Regulatory Impact Analysis
CWA	Clean Water Act	RIN	Regulation Identifier Number
DOCD	Development Operations Coordination Documents	ROV	Remotely Operated Vehicle
DOI	Department of the Interior	RP	Recommended Practice
DPP	Development and	SCCE	Source Control and Containment

	Production Plans		Equipment
EA	Environmental Assessment	Secretary	Secretary of the Interior
E.O.	Executive Order	SEMS	Safety and Environmental Management Systems
EP	Exploration Plan	SIDs	Shut-in Devices
EPA	Environmental Protection Agency	UMRA	Unfunded Mandates Reform Act of 1995
ESA	Endangered Species Act	U.S.	United States
IC	Information Collection	USCG	U.S. Coast Guard
ICAS	Inupiat Community of the Arctic Slope	USFWS	U.S. Fish and Wildlife Service
Initial RIA	Initial Regulatory Impact Analysis	WCD	Worst-Case Discharge
IOP	Integrated Operations Plan	Working Group	Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska
ISO	International Organization for Standardization		

I. Introduction

The Arctic region is known for its oil and gas resource potential, its thriving and diverse ecosystems, and the Alaska Native communities who rely on the Arctic's resources for subsistence and cultural traditions. The Arctic region is also characterized by extreme environmental conditions, geographic remoteness, and a relative lack of fixed infrastructure and existing operations. These are key factors in considering the feasibility, practicality, and safety of conducting offshore oil and gas activities on the Arctic OCS.

In May 2013, President Obama issued a document entitled, "National Strategy for the Arctic Region (National Arctic Strategy)." The President affirmed that emerging economic opportunities exist in the region, but that ". . . we must exercise responsible stewardship, using an integrated management approach and making decisions based on

the best available information, with the aim of promoting healthy, sustainable, and resilient ecosystems over the long term."

In keeping with the Nation's comprehensive "all of the above" energy strategy to continue to expand safe and responsible domestic energy production, the National Arctic Strategy is intended, among other things, to "reduce our reliance on imported oil and strengthen our Nation's energy security" by working with stakeholders to enable "environmentally responsible production of oil and natural gas." To provide responsible stewardship of the Arctic's environment and resources, the National Arctic Strategy emphasizes the need for integrated and balanced management techniques.

Furthermore, the National Arctic Strategy acknowledges the potential international implications of Arctic oil and gas activities for "other Arctic states and the international community as a whole." The U.S. has committed to do its part to "keep the Arctic region prosperous, environmentally sustainable, operationally safe, secure, and free of conflict[.]" One primary objective outlined in the implementation plan for the National Arctic Strategy is to "reduce the risk of marine oil pollution while increasing global capabilities for preparedness and response to oil pollution incidents in the Arctic." (http://www.whitehouse.gov/sites/default/files/docs/implementation_plan_for_the_national_strategy_for_the_arctic_region_-_fi....pdf). The National Arctic Strategy is an example of the types of action the U.S. is taking to implement its obligations under international agreements, such as the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (available at: www.arctic-council.org/eppr/agreement-on-cooperation-on-marine-oil-pollution-preparedness-and-response-in-the-arctic/).

A. Resource Potential

The Alaska OCS region is estimated to contain a vast amount of undiscovered, technically recoverable oil and gas. According to BOEM's 2011 Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf (mean estimates available at: www.boem.gov/Oil-and-Gas-Energy-Program/Resource-Evaluation/Resource-Assessment/2011_National_Assessment_Factsheet-pdf.aspx), there are approximately 23.6 billion barrels of technically recoverable oil and about 104.4 trillion cubic feet of technically recoverable natural gas in the Beaufort Sea and Chukchi Sea Planning Areas combined. Most of the Alaska OCS resource potential is located off the Arctic coast within the Chukchi Sea and Beaufort Sea Planning Areas. This resource potential has received considerable attention from the oil and gas industry and the U.S. government, and has precipitated the sale of hundreds of leases and the initiation of subsequent exploration activities. The Alaska OCS region, particularly the Beaufort Sea and Chukchi Sea Planning Areas, has the potential to be an integral part of the "all of the above" domestic energy strategy articulated in the National Arctic Strategy.

B. Integrated Arctic Management

As ocean and seasonal conditions continue to change in the Arctic, there will be an increasing number of stakeholders vying for access to the Arctic OCS and the waters above it. Both commercial and recreational activities are increasing as more areas of water open up for longer periods of time due to the increase of melting sea ice. The decrease in summer sea ice raises legitimate concerns regarding changes to the environment and the Arctic resources that Alaska Natives depend on for survival and

cultural traditions. Consistent with the Outer Continental Shelf Lands Act (OCSLA), BOEM and BSEE, the Bureaus responsible for managing oil and gas resources on the Arctic OCS, are proposing regulations that take into account the needs of the multiple users who have an interest in the future of the U.S. Arctic region (*see* 43 U.S.C. 1332(6)).

The U.S. has maintained a longstanding interest in the orderly development of oil and gas resources on the Arctic OCS, while also seeking to ensure the protection of its environment and communities. The U.S. has proceeded cautiously to ensure that laws, regulations, and policies concerning Arctic OCS oil and gas development are created and implemented based on a thorough examination of the multiple factors at play in the unique Arctic environment. BOEM and BSEE have conducted extensive research on potential oil and gas activities in the Arctic OCS in anticipation of operations (*see, e.g.,* www.bsee.gov/Technology-and-Research/Technology-Assessment-Programs/Categories/Arctic-Research/), and have also evaluated the potential environmental effects of such activities (*see, e.g.,* http://www.boem.gov/akstudies/). These research projects, along with other initiatives, form the basis for the most recent National policies and directives regarding Alaska OCS oil and gas development, all of which have guided this proposed rule.

Coordinating the future uses of the Arctic region will require integrated action between and among Federal, state, and tribal governmental entities. On July 15, 2011, President Obama signed Executive Order (E.O.) 13580, establishing an Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska (Working Group), chaired by the Deputy Secretary of DOI. The Working Group is composed of representatives from the DOI, Department of Defense, Department of

Commerce, Department of Agriculture, Department of Energy, Department of Homeland Security, the Environmental Protection Agency (EPA), and the Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects. It is charged with facilitating "coordinated and efficient domestic energy development and permitting in Alaska while ensuring that all applicable [health, safety, and environmental protection] standards are fully met" (E.O. 13580, sec. 1).

The Working Group was involved in coordinating Federal regulatory and oversight efforts for the 2012 Alaska OCS drilling season and played an important role in BOEM's and BSEE's reviews of plans and permits for Shell's 2012 operations. The Working Group's report entitled, "Managing for the Future in a Rapidly Changing Arctic, A Report to the President" (March 2013), was the result of substantial collaboration and has also played a significant role in shaping U.S. Arctic policies.

C. Overview of Proposed Regulations

Although there is currently a comprehensive OCS oil and gas regulatory program, DOI engagement with partners and stakeholders[1] reveals the need for new and enhanced regulatory measures for Arctic OCS exploratory drilling by MODUs. For purposes of this rulemaking, exploratory drilling is considered to be "[a]ny drilling conducted for the purpose of searching for commercial quantities of oil, gas, and sulphur, including the drilling of any additional well needed to delineate any reservoir to enable the lessee to decide whether to proceed with development and production" (30 CFR 250.105 and

[1] Tribes, State and local governments, and Federal agencies are "partners." "Stakeholders" are non-governmental organizations, industry, and other entities.

30 CFR 550.105 (one of the definitions of "exploration")).[2] This proposed rule focuses on Arctic OCS exploratory drilling activities that use MODUs (*e.g.*, jack-ups and anchored drillships) and related operations during the Arctic open-water drilling season (generally late June to early November). After the requirements for exploratory drilling are finalized and applied to those activities, DOI will be able to assess whether it should apply similar requirements to development drilling. BOEM and BSEE will then be in a position to consider developing requirements appropriate for development drilling activities and publish a rulemaking for public notice and comment in the *Federal Register*. The requirements may be the same as the final requirements for exploratory drilling, or BOEM and BSEE may modify these requirements.

The Arctic region is known for its challenging environmental conditions, geographic remoteness, and relative lack of existing infrastructure. This proposed rule builds on and would codify input received from partners and stakeholders, key components of Shell's 2012 Arctic exploratory drilling program, as well as the additional measures DOI required to ensure Shell's drilling operations were conducted safely.

Though its actual drilling operations were conducted without incident, Shell experienced a number of challenges during its 2012 exploratory drilling program. In 2013, DOI released a "Report to the Secretary of the Interior, Review of Shell's 2012 Alaska Offshore Oil and Gas Exploration Program" (60-Day Report) (available at: http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf). The 60-Day Report identified a number of lessons learned and recommended practices to ensure

[2] This proposed rule uses and defines terms that may be similar to terms used in other programs by other Federal agencies; however, the terms and definitions used in this proposed rule are intended to apply only to the BSEE and BOEM regulatory programs covered by this proposed rule, unless otherwise noted.

future Arctic oil and gas exploration activities continue to be carried out in a safe and responsible manner.

BOEM and BSEE have undertaken extensive environmental and safety reviews of potential oil and gas operations on the Arctic OCS. These reviews, along with concerns expressed by environmental organizations and Alaska Natives, reinforce the need to develop additional measures specifically tailored to the operational and environmental conditions of the Arctic OCS. Arctic OCS operations can be complex, and there are challenges and operational risks throughout every phase of an exploratory drilling program. Experience gained during the 2012 Arctic drilling season has led BOEM and BSEE staff to conclude that enhanced and more specific requirements can help ensure that oil and gas activities in the Arctic OCS are conducted in a safe and environmentally responsible manner. After considering the input provided by various stakeholders and DOI's direct experience from Shell's 2012 Arctic operations, BOEM and BSEE have concluded that additional exploratory drilling regulations are necessary and appropriate as a part of the Arctic OCS oil and gas regulatory framework.

This proposed rule is a combination of prescriptive and performance-based requirements that address a number of important issues and objectives, including, but not limited to, ensuring that operators:

1. Design and conduct exploration programs in a manner suitable for Arctic OCS Conditions (*e.g.*, using equipment and processes that are capable of performing effectively and safely under extreme weather and sea conditions and in remote locations with relatively limited infrastructure);

2. Develop an IOP that would address all phases of their proposed Arctic OCS exploration program and submit the IOP to DOI, acting through its designee, BOEM, at least 90 days in advance of filing the EP;

3. Have access to, and the ability to promptly deploy, SCCE while drilling below or working below the surface casing;

4. Have access to a separate relief rig located so that it could timely drill a relief well in the event of a loss of well control under the conditions expected at the site;

5. Have the capability to predict, track, report, and respond to ice conditions and adverse weather events;

6. Effectively manage and oversee contractors; and

7. Develop and implement OSRPs that are designed and executed in a manner suitable for the unique Arctic OCS operating environment and that describe the availability of the necessary equipment, training, and personnel for oil spill response on the Arctic OCS.

D. Potential Costs and Benefits of Proposed Rule

The Initial Regulatory Impact Analysis (RIA) for this proposed rule estimates that, if implemented as proposed, the new regulations would result in economic costs ranging from $1.1 to 1.2 billion (at discount rates of 7 percent and 3 percent, respectively) over 10 years. The above estimated cost range reflects the increase in costs over the baseline costs. As discussed in part VI.B.3, the baseline is calculated by estimating the costs associated with current regulatory requirements and industry standards. In general, this includes the requirements imposed by DOI during the 2012 drilling season. However, even though DOI required the availability of a relief rig in 2012, we have conservatively

chosen not to include the costs of staging a standby relief rig in the baseline. Although BOEM and BSEE expect that over time, as the number of operating rigs on the Arctic OCS increases, operators will use a second operating rig as a relief rig, in lieu of a dedicated standby relief rig, we have included the capital and activity costs for a standby rig for the first two years (2015-2016) of the 10-year time period in the economic costs of the proposed rule.

While the economic and other benefits of the proposed rule—based primarily on preventing or reducing the severity or duration of catastrophic oil spills—are difficult to quantify, BOEM and BSEE have determined that it is appropriate to proceed with this proposal. Although the probability of a catastrophic oil spill is low, the *Deepwater Horizon* oil spill demonstrated that even such low probability events can have devastating economic and environmental results when they occur. The benefits of the proposed rule include reducing such risks associated with Arctic offshore operations.

Reducing the risks of Arctic offshore operations is particularly important because of the unique significance to Alaska Natives of the fish and marine mammals in the lands and waters around the Arctic OCS; those resources are critical components of the Alaska Natives' livelihood, and they rely on fishing and hunting for traditional cultural purposes and for subsistence. Similarly, many other Americans place a very high value on protecting the health of the ecosystem, including the sensitive environment and wildlife, of this largely frontier area. Thus, the impact of a catastrophic oil spill, while a remote possibility, would have extremely high cultural and societal costs, and prevention of such a catastrophe would have correspondingly high cultural and societal benefits.

The proposed requirements—specifically tailored to the Arctic OCS—would provide additional specificity regarding BOEM's and BSEE's expectations for safe and responsible development of Arctic resources and would outline the particular actions that lessees, owners and operators must take in order to meet those expectations. BSEE and BOEM do not anticipate that these proposed requirements, or their associated costs, would prevent lessees and operators from conducting exploratory drilling on their leases. In fact, the additional clarity and specificity provided by the proposed rule should help the oil and gas industry to plan better and to more effectively conduct exploratory drilling on the Arctic OCS, which in turn should result in development and production of oil and gas with lower risk and fewer delays than under the current rules. Since the potential economically recoverable oil and gas resources from the Arctic OCS are abundant, as discussed later in this proposed rule, the positive impact of such production on U.S. energy independence and energy security could be substantial. Thus, this proposed rule would help achieve the National Arctic Strategy goals of protecting the unique and sensitive Arctic ecosystems, as well as the subsistence, culture and traditions of the Alaska Native communities, while reducing reliance on imported oil and strengthening National energy security.

II. Background

A. Statutory and Regulatory Overview

1. Outer Continental Shelf Lands Act (OCSLA)

The OCSLA, 43 U.S.C. 1331 *et seq.*, was first enacted in 1953, and substantially amended in 1978, when Congress established a National policy of making the OCS "available for expeditious and orderly development, subject to environmental safeguards,

in a manner which is consistent with the maintenance of competition and other National needs" (43 U.S.C. 1332(3)). In addition, Congress emphasized the need to develop OCS mineral resources in a safe manner "by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of blowouts, loss of well control, fires, spillages, physical obstruction to other users of the waters or subsoil and seabed, or other occurrences which may cause damage to the environment or to property, or endanger life or health" (43 U.S.C. 1332(6)). The Secretary of the Interior (Secretary) administers the OCSLA's provisions relating to the leasing of the OCS and regulation of mineral exploration and development operations on those leases. The Secretary is authorized to prescribe "such rules and regulations as may be necessary to carry out [OCSLA's] provisions . . . and may at any time prescribe and amend such rules and regulations as [s]he determines to be necessary and proper in order to provide for the prevention of waste and conservation of the natural resources of the [OCS] . . ." which "shall, as of their effective date, apply to all operations conducted under a lease issued or maintained under the provisions of [OCSLA]" (43 U.S.C. 1334(a)).

Prior to commencing exploration for oil and gas on an OCS lease tract, the statute and BOEM regulations require lessees to submit an EP to the Secretary for approval (43 U.S.C. 1340(c)(1); 30 CFR 550.201(a)). An EP must include information such as a schedule of anticipated exploration activities, equipment to be used, the general location of each well to be drilled, and any other information deemed pertinent by the Secretary (43 U.S.C. 1340(c)(3); 30 CFR 550.211 through 550.228)).

However, approval of an EP does not automatically permit the lessee to proceed with exploratory drilling. The lessee must submit to the Secretary an Application for Permit to

Drill (APD) which must be approved before a lessee may drill a well (43 U.S.C. 1340(d); 30 CFR 250.410).

The Secretary delegated most of the responsibilities under the OCSLA to BOEM and BSEE, both of which are charged with administering and regulating aspects of the Nation's OCS oil and gas program. BOEM and BSEE work to promote safety, protect the environment, and conserve offshore resources through vigorous regulatory oversight. BOEM manages the development of the Nation's offshore energy resources in an environmentally and economically responsible way. BOEM's functions include leasing; exploration, development and production plan administration; environmental analyses to ensure compliance with NEPA; environmental studies; resource evaluation; economic analysis; and management of the OCS renewable energy program. BSEE performs offshore regulatory oversight and enforcement to ensure safety and environmentally sound performance during operations, and the conservation of offshore resources, by, among other things, evaluating drilling permits, and conducting inspections to ensure compliance with laws, regulations, lease terms, and approved plans and permits.

BOEM evaluates EPs, and BSEE evaluates APDs, to determine whether the operator's proposed activities meet the OCSLA's standards and each Bureau's regulations governing offshore exploration. The regulatory requirements include, but are not limited to, determining whether the proposed drilling operation:

i. Conforms to OCSLA, as amended, its applicable implementing regulations, lease provisions and stipulations, and other applicable laws;

ii. Is safe;

iii. Conforms to sound conservation practices and protects the rights of the U.S. and mineral resources of the OCS;

iv. Does not unreasonably interfere with other uses of the OCS; and

v. Does not cause undue or serious harm or damage to the human, marine, or coastal environments (30 CFR 250.101 and 250.106; 30 CFR 550.101 and 550.202).

Based on these evaluations, BOEM and BSEE will approve the lessee's (or operator's) EP and APD, require the lessee (or operator) to modify its submissions, or disapprove the EP or APD (30 CFR 250.410; 30 CFR 550.233).

2. The Oil Pollution Act of 1990 (OPA) and Clean Water Act (CWA)

Congress passed the OPA, 33 U.S.C. 2701 *et seq.*, following the Exxon Valdez oil spill. The OPA amended the CWA, 33 U.S.C. 1251 *et seq*., by, among other things, adding OSRP provisions for offshore facilities. The OPA provides for prompt federally coordinated responses to offshore oil spills and for compensation of spill victims. It also calls for the issuance of regulations prohibiting owners and operators of offshore facilities from operating or handling, storing, or transporting oil until:

i. They have prepared and submitted "a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil . . .;"

ii. The plan "has been approved by the President;" and

iii. The "facility is operating in compliance with the plan" (OPA § 4202(a), codified at 33 U.S.C. 1321(j)(5)(A)(i) and (F)(i)-(ii)).

E.O. 12777 (October 18, 1991) authorized the Secretary to carry out the functions of 33 U.S.C. 1321(j)(5) and (j)(6)(A). This includes the promulgation of regulations

governing the obligation to prepare and submit OSRPs, the review and approval of OSRPs, and the periodic verification of spill response capabilities related to these plans. Those applicable regulations are administered by BSEE and are found at 30 CFR Parts 250 and 254. E.O. 12777 also authorized the Secretary to implement 33 U.S.C. 1321(j)(1)(C), which provides for the issuance of regulations "establishing procedures, methods, and equipment and other requirements for equipment to prevent discharges of oil and hazardous substances from . . . offshore facilities, and to contain such discharges . . . ."

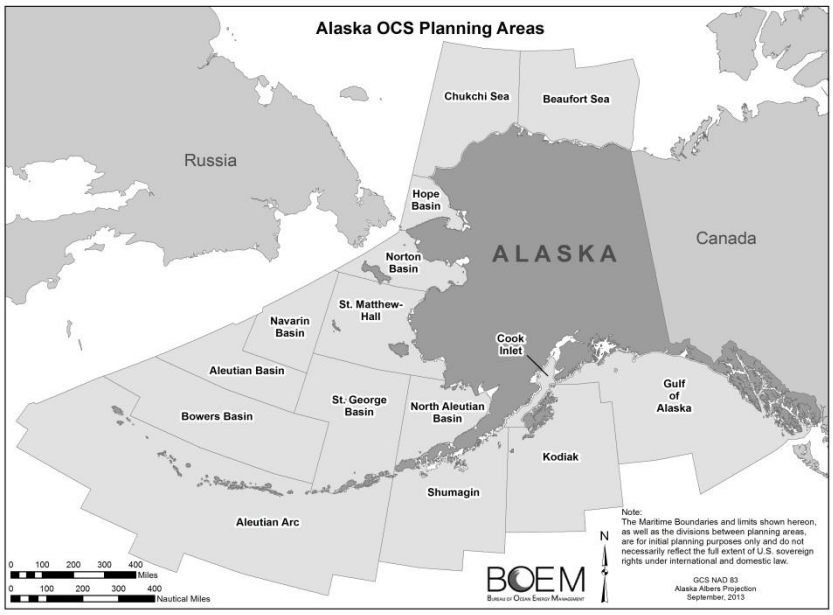
B. Factual Overview of the Alaska OCS Region

1. The Arctic OCS Oil and Gas Resource Potential has Attracted Significant Attention over the Past Three Decades

There has been a renewed interest in the oil and gas potential of the Alaska OCS since the first exploratory wells were drilled in the late 1970s. The majority of exploratory drilling north of the Arctic Circle has occurred where the greatest oil and gas resource potential exists, namely the Beaufort Sea and Chukchi Sea Planning Areas (defined in this proposed rule as the Arctic OCS). A total of 30 exploratory wells have been drilled on the Beaufort OCS since the first Federal OCS leases were offered, and more wells have been drilled beneath the near-shore Beaufort Sea under the jurisdiction of the State of Alaska *(see* BOEM Alaska Region website at: http://www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Historical-Data/Index.aspx). The Chukchi Sea Planning Area has a more limited history of leasing and exploration. Only a total of five exploratory wells have been drilled *(see* BOEM Alaska Region website at: www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Historical-

Data/Index.aspx) and no site was considered commercially viable for development during that time.

There have been only three exploratory wells drilled on the Arctic OCS since 1994 – the 2003 exploratory well near Prudhoe Bay in the Beaufort Sea and Shell's two "top hole" wells drilled in 2012 (*see* BOEM Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf (2011)).



Except for the Northstar project, operated by BP Exploration (Alaska), Inc. (BP) from State submerged lands in the Beaufort Sea, no production has yet resulted from any of the leases.[3]

There are currently no active Alaska OCS leases located anywhere outside of the Beaufort Sea and Chukchi Sea Planning Areas. The oil and gas industry's interest in

[3] BP has transferred its interests in the Northstar project to Hilcorp. Hilcorp is now the operator of that project.

offshore oil and gas exploration on the Arctic OCS remains high despite the pace of exploration and the challenges of operating in this unique environment.

2. Challenges to Arctic Oil and Gas Operations

The challenges to conducting operations and responding to emergencies in the extreme and variable environmental and weather conditions in the Arctic are severe. Both the Beaufort Sea and Chukchi Sea Planning Areas experience sub-freezing temperatures during most of the year, extended periods of low-light visibility, significant fog cover in the summer, strong winds and currents, strong storms that produce freezing spray and dangerous sea states, snow, and significant ice cover. During the fall (September – November), conditions become increasingly inhospitable as air temperatures decrease, wind speeds increase, storms become more frequent, and sea ice begins to form, all of which make Arctic OCS exploratory drilling operations more challenging (*see* Environmental Assessments for Shell Offshore, Inc.'s Revised Outer Continental Shelf Lease Exploration Plan, Camden Bay, Beaufort Sea, Alaska (2011) and Shell Gulf of Mexico, Inc.'s Revised Chukchi Sea Exploration Plan Burger Prospect (2011)); BOEM Alaska Region website at: http://www.boem.gov/About-BOEM/BOEM-Regions/Alaska-Region/Environment/Environmental-Analysis/Environmental-Impact-Statements-and--Major-Environmental-Assessments.aspx). Other challenges to conducting operations and responding to emergencies on the Arctic OCS include the geographical remoteness and relative lack of established infrastructure to support oil and gas operations.

C. Partner and Stakeholder Engagement in Preparation for This Proposed Rule

DOI used the recommendations from the 60-Day Report as a basis for a series of discussions with multiple partners and stakeholders who provided valuable input regarding potential approaches to regulating oil and gas operations on the Arctic OCS. BOEM and BSEE recognize the importance of the Arctic region to a number of partners and stakeholders with varying positions on oil and natural gas development in the region. Both Bureaus engaged in discussions with Alaska Native and State partners, and with environmental and industry stakeholders, in advance of publishing this proposed rule. Those discussions addressed the recommendations from the 60-Day Report, as well as information regarding operating conditions and challenges in the Arctic. The then-Acting Assistant Secretary for Land and Minerals Management, along with DOI staff from headquarters and the Alaska Region, held three listening sessions and a series of meetings in Alaska over the course of several weeks in June 2013. Representatives of DOI also met with conservation organizations, the Mayor of the North Slope Borough, the Alaska Eskimo Whaling Commission, the Inupiat Community of the Arctic Slope (ICAS), the Native Village of Barrow, two Alaska Native Claims Settlement Act (ANCSA) corporations, oil and gas industry representatives, State of Alaska officials, and other local government representatives.

DOI considered the suggestions and concerns of all partners and stakeholders to produce a proposed rule that balances maximizing oil and gas resource exploration on the Arctic OCS, in furtherance of the Nation's energy security, with appropriate safeguards to protect human safety and the unique Arctic environment, as well as the cultural sensitivities and subsistence needs of the Alaska Native communities that might be affected by oil and gas development in the Arctic.

1. Alaska Natives

DOI heard a variety of perspectives from Alaska Natives during its outreach in advance of the rulemaking, including interest in the potential economic opportunities from oil and gas development. However, the overriding concern expressed by Alaska Natives is the potential for adverse impacts from oil and gas operations on the marine environment and its resources, including marine mammals, such as bowhead whales. Alaska Natives requested that the DOI evaluate the extent to which oil and gas activities may adversely affect marine resources of the waters overlying the Arctic OCS and the subsistence harvest practices of Alaska Natives. In particular, the marine mammal fauna of the Beaufort and Chukchi Seas are among the most diverse in the world and are of high scientific and public interest, and many are also important for subsistence.

Future exploratory drilling could affect subsistence users in the Arctic region. Subsistence harvests differ among Alaska Native coastal communities. However, the bowhead whale is the most important marine mammal species to a majority of Arctic coastal communities because it is the preferred meat and it provides a unique and powerful cultural basis for sharing and community cooperation.

Subsistence practices are a highly valued aspect of Alaska Native culture. These practices are an important facet of Alaska Native economies because they provide viable and essential means for families to support themselves in this remote environment. The sharing of subsistence resources also helps maintain traditional family and community organizations. In addition to their dietary benefits, subsistence resources provide special foods for religious and social occasions, and materials for personal and family use. Subsistence hunting also links Alaska Native communities to the larger market economy.

Many households within the communities earn money from selling art work from the crafting of whale baleen and walrus ivory, and from clothing made from fur-bearing mammals.

The Alaska Eskimo Whaling Commission, the North Slope Borough, and others requested that DOI consider marine mammals' health as a critical part of this proposed rule. Throughout the rule, BOEM and BSEE have proposed elements designed to increase safety of oil and gas exploration in ways that would help protect marine mammals by reducing the likelihood and/or severity of oil spills. The Alaska Eskimo Whaling Commission and its whaling captains have worked with BOEM to help document traditional knowledge pertaining to bowhead whales, including movement and behavior. Bowhead hunters are concerned that the effects of offshore oil and gas exploration might displace migrating bowhead whales.

Accordingly, BSEE proposes to revise § 250.300(b) in order to: (i) require operators to capture all petroleum-based mud and associated cuttings that result from Arctic OCS exploratory drilling operations to prevent their discharge into the marine environment; and (ii) clarify the Regional Supervisor's discretion to require operators to capture water-based mud and associated cuttings from Arctic OCS exploratory drilling (after completion of the hole for the conductor casing) to prevent their discharge into the marine environment, based on factors such as the proximity of exploratory drilling operations to subsistence hunting and fishing locations or the extent to which such discharges might cause marine mammals to alter their migratory patterns in a manner that interferes with subsistence activities or that might otherwise adversely affect marine mammals, fish, or their habitat(s).

Given the importance of subsistence hunting and other activities to the Alaska Native communities, operators are encouraged to work directly with interested parties to help mitigate potential impacts to subsistence activities. In addition, BOEM will continue to fund and support studies to better understand impacts from OCS operations on marine mammals and subsistence activities.[4]

The North Slope Borough also expressed concern that oil and gas development not overwhelm local infrastructure, energy supplies, and services, and that local residents be provided the capacity - both in terms of training and resources - to protect their communities and important subsistence use areas. For this reason, DOI proposes to require operators to provide information about their plans to minimize the impact of their exploratory drilling operations on community infrastructure and their plans to provide the communities with oil spill cleanup training and resources.

2. Environmental Organizations

DOI also met directly with environmental organizations to review and discuss recommendations for Arctic oil and gas regulations. The PEW Charitable Trusts requested that BSEE revise 30 CFR 250.447 in order to require blowout preventer (BOP) pressure testing every 7 days for drilling and completion operations (an increase from every 14 days). BSEE proposes to amend the language in § 250.447 in order to require operators on the Arctic OCS to pressure test the BOP system every 7 days during exploratory drilling operations. This proposed requirement is also a safety measure included in Shell's 2012 Arctic exploratory drilling program. Additionally, BSEE is

[4] BOEM's Environmental Studies Program has made significant investments into studying potential impacts from operations related to oil and gas exploration. For example, BOEM has funded bowhead whale studies incorporating Traditional Ecological Knowledge and tagging data to learn more about bowhead whale migration through the Chukchi Sea in the fall and winter (Quakenbush *et al.*, 2010).

proposing to add a new § 250.471, which would require that a capping stack be available and positioned to arrive at the well within 24 hours after a loss of well control and a cap and flow system and that a containment dome be available and positioned to arrive at the well within 7 days after a loss of well control.

The Wilderness Society requested that BSEE consider implementing Arctic-specific provisions for OSRPs. BSEE proposes to add several requirements for OSRPs in this rule. In particular, BSEE proposes to require that operators conducting exploratory drilling on the Arctic OCS account for how they would increase oil encounter rates and the effectiveness of spill response techniques and equipment when sea ice is present. BSEE also proposes to add new provisions to 30 CFR Part 254 for Arctic OCS exploratory drilling operators to, among other things, account for enhanced oil spill response training and exercises, as well as address the maintenance of response capabilities in the face of seasonal gaps in operations.

3. Oil and Gas Operators

DOI held further meetings throughout the summer of 2013 with individual oil and gas companies to hear their perspectives on possible regulations for Arctic OCS operations. The oil and gas operators emphasized a preference for performance-based rules as opposed to prescriptive rules, and also stressed the need for early engagement with the agencies in order to achieve up-front regulatory consistency. While elements of the proposed rule are prescriptive in nature, BOEM and BSEE endeavored to identify opportunities where performance-based requirements were feasible and would achieve the Bureaus' goals. For these reasons, among others, BOEM proposes to add a new requirement that operators submit an IOP for their proposed Arctic exploratory drilling

operations and describe at an early point in the planning process how their exploratory drilling program would be designed and conducted in an integrated manner suitable for Arctic OCS Conditions. The IOP process is intended to facilitate the prompt sharing of information among the relevant Federal agencies (*e.g.*, BOEM, BSEE, U.S. Fish and Wildlife Service (USFWS), U.S. Coast Guard (USCG), National Oceanic and Atmospheric Administration (NOAA), U.S. Army Corps of Engineers, EPA) and the State of Alaska. The IOP process would also provide the relevant agencies an early opportunity to engage in a meaningful and constructive dialogue with operators and each other.

The goal of the IOP and the enhanced and early dialogue is to have a well-planned, safe operation. Early communication on planning is also anticipated to minimize the potential for project delays.

D. Expected Benefits Justifying Potential Costs

The initial RIA for this proposed rule estimates that it would result in economic costs ranging from $1.1 to 1.2 billion, discounted at 7 percent and 3 percent respectively, over 10 years. The above estimated cost range reflects the increase in costs over the baseline costs, as discussed elsewhere in this notice.

While many of the economic and other benefits of the proposed rule - based primarily on preventing or reducing the severity or duration of catastrophic oil spills - are difficult to quantify, BOEM and BSEE have determined that the benefits of the proposed rule would justify its potential costs and that it is appropriate to proceed with this proposal. The probability of a catastrophic oil spill is very low; however, the *Deepwater Horizon* oil spill demonstrated that even such low probability events can have devastating

economic and environmental results. As of October 2014, by its own account, BP spent over $14 billion for cleanup and response operations related to the *Deepwater Horizon* oil spill. The benefits of the proposed rule would accrue from a relief rig, increased safety measures, and other requirements that are expected to reduce the potential for an incident resulting in an oil spill associated with Arctic offshore operations and, if an incident occurs, to reduce the duration of a spill.

The Arctic OCS and its surrounding land and waters have a unique significance to Alaska Natives, who rely on them for traditional cultural purposes and depend on them for subsistence. Similarly, many other Americans place a very high value on protecting the ecosystem, including the sensitive environment and wildlife, of this largely frontier area. Thus, prevention of a catastrophic oil spill, and reduction of the duration of a spill if one occurs, would have extremely important, even though largely unquantifiable, cultural and societal benefits for the Nation.

Moreover, as explained elsewhere, this proposed rule would help achieve the National Arctic Strategy goals of protecting the unique and sensitive Arctic ecosystems, as well as the subsistence needs, culture and traditions of the Alaska Native communities, while reducing reliance on imported oil and strengthening National energy security. The proposed requirements—which are specifically tailored to the Arctic OCS—would provide additional clarity and specificity regarding BOEM's and BSEE's expectations for safe and responsible development of Arctic resources and the particular actions that lessees, owners and operators must take in order to meet those expectations. This additional clarity and specificity is intended to help the oil and gas industry to plan better and to more effectively conduct exploratory drilling on the Arctic OCS, resulting in the

development and production of oil and gas with lower risk and fewer delays than have occurred under the current rules. According to BOEM's 2011 Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, there are approximately 17.8 billion barrels of economically recoverable oil and about 50.1 trillion cubic feet of economically recoverable natural gas in the Beaufort Sea and Chukchi Sea Planning Areas combined. Thus, the impact of production in the Arctic region on U.S. energy independence and energy security could be substantial.

III. Proposed Regulations for Arctic OCS Exploratory Drilling

The existing OCS oil and gas regulatory regime is extensive and covers all offshore facilities or operations in any OCS region, as appropriate and applicable. BOEM and BSEE use these regulations in their respective oversight of OCS leasing, exploration, development, production, and decommissioning. Depending on the type of activity, operators are subject to the same regulatory requirements, such as: application procedures and information requirements for exploration, development, and production activities; pollution prevention and control; safety requirements for casing and cementing and the use of a BOP and diverter systems; design, installation, use and maintenance of OCS platforms to ensure structural integrity and safe and environmentally protective operations; decommissioning; development and implementation of Safety and Environmental Management Systems (SEMS); and preparation and submission of OSRPs (*see generally* 30 CFR Parts 250, 254, and 550).

The existing regulations also contain provisions that apply to specific regions or atypical activities or operating conditions, especially, for example, where drilling occurs

in deep water or in a "frontier" area (typically characterized by its remote location and limited infrastructure and operational history, such as the Arctic OCS region). In these cases, BOEM and BSEE have special requirements, such as information and design requirements for deep-water development projects (§§ 250.286 through 250.295); use of appropriate equipment, third-party audits, and contingency plans in frontier areas or other areas subject to subfreezing conditions (§§ 250.417(c) and 250.418(f)); the placement of subsea BOP systems in mudline cellars when drilling occurs in areas subject to ice-scouring (§ 250.451); and emergency plans and critical operations and curtailment procedures information in the Alaska OCS Region (§§ 550.220 and 550.251).

Though there is currently a comprehensive OCS oil and gas regulatory program, there is a need for new and amended regulatory measures for Arctic OCS exploratory drilling by MODUs. These proposed regulations, in combination with existing regulations (which would continue to apply to Arctic OCS operations unless otherwise expressly stated), are intended to ensure that exploratory drilling operations are well planned from the outset and then conducted safely and responsibly in relation to the unique Arctic environment and the local communities that are closely connected to the region and its resources. The key elements of the proposed rule are:

A. Measures That Address Recommendations – The proposed rule addresses recommendations contained in several recent reports on OCS oil and gas activities (*e.g.*, the Arctic Council, Arctic Offshore Oil and Gas Guidelines (2009); the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling (2011); Ocean Energy Safety Advisory Committee Recommendations (2013); DOI's 60-Day Report (2013); the Working Group's report entitled, "Managing for the Future in a Rapidly

Changing Arctic, A Report to the President" (March 2013); the National Arctic Strategy (May 2013); and the Arctic Council, Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture (March 2014)).

B. IOP Requirement - During exploratory drilling operations on the Arctic OCS, operators may face substantial environmental challenges and operational risks throughout every phase of the endeavor, including preparations, mobilization, in-theater drilling operations, emergency response and preparedness, and demobilization. Thorough advanced planning is critical to mitigating these challenges and risks. One of the key components of this proposed rule is a requirement that operators explain how their proposed Arctic OCS exploratory drilling operations would be fully integrated from start to finish in a manner suitable for Arctic OCS Conditions and that they provide this information to DOI at an early stage of the planning process.

This rule proposes to require that operators develop and submit an IOP to DOI, acting through its designee, BOEM, at least 90 days in advance of filing their EP. The purpose of the IOP is to describe, at a strategic or conceptual level, how exploratory drilling operations will be designed, executed, and managed as an integrated endeavor from start to finish. The IOP is intended to be a concept of operations that would include a description of the various aspects of an operator's proposed exploratory drilling activities and supporting operations and how the operator's program would be designed and conducted in a manner that accounts for the challenges presented by Arctic OCS Conditions. The primary issues DOI would expect operators to address relative to Arctic OCS Conditions include, but are not limited to:

1. Vessel and equipment design and configurations;

2. The overall schedule of operations, including contractor work on critical components;

3. Mobilization and demobilization operations and maintenance schedule(s);

4. In-theater drilling program objectives and timelines for each objective;

5. Weather and ice forecasting and management capabilities;

6. Contractor management and oversight; and

7. Preparation and staging of spill response assets.

DOI recognizes that other Federal agencies have primary oversight responsibility for some of the previously listed activities. Upon receipt of the IOP, DOI would engage with members of the Working Group and promptly distribute the IOP to the State of Alaska and Federal government agencies involved in the review, approval, or oversight of various aspects of OCS operations.

However, the IOP process would not require agencies to review or approve the IOP or an operator's planned activities. The IOP is a conceptual, informational document designed to ensure that an operator pays thorough and early attention to the full suite of regulated activities, and to give regulatory agencies a preview of an operator's approach to regulatory compliance and integrated planning. Thus, the IOP would enable relevant agencies to familiarize themselves, early in the planning process, with the operator's overall proposed program from start to finish. This, in turn, would allow DOI and those agencies to coordinate and provide early input to the operator regarding potential issues presented by the proposed activities with respect to any future plan approvals and permitting requirements, including aspects of the program that might require additional details or refinement. The proposed IOP requirement—and the proposed rule in

general—would not, however, interfere with or supplant operators' obligations to comply with all other applicable Federal agency requirements. Each agency that receives an IOP would continue to review the relevant details of an operator's planned activities for compliance with that agency's regulatory requirements in the appropriate manner and at the appropriate time under its own regulatory program.

C. SCCE and Relief Rig Capabilities – In Arctic OCS exploratory drilling, there is a need for operators to demonstrate that they would have access to, and could deploy, well control and containment resources that would be adequate to promptly respond to a loss of well control. This equipment is already readily available and accessible in the Gulf of Mexico due to the level of activity in that area. Ensuring that operators have all necessary redundancies in place is critical, as there is no guarantee that a single measure could control or contain a worst-case discharge (WCD). Therefore, BSEE proposes to require operators who use a MODU for Arctic OCS exploratory drilling to have access to, and the ability to deploy, SCCE (*e.g.*, a capping stack, cap and flow system, and containment dome) within the timeframes discussed elsewhere in this proposed rule and that the SCCE be capable of functioning in Arctic OCS Conditions. BSEE also proposes that operators have access to a separate relief rig that would be staged at a location such that it could arrive on site and be capable of drilling a relief well under anticipated Arctic OCS Conditions within specified timeframes. This equipment is fundamental to safe and responsible operations on the Arctic OCS, where existing infrastructure is sparse, the geography and logistics make bringing equipment and resources into the region challenging, and the time available to mount response operations is limited by changing weather and ice conditions, particularly at the end of the drilling season. Operators may

request approval of alternative compliance measures under existing regulations, if they can demonstrate that such alternative equipment or procedures could provide a level of safety and environmental protection equal to or surpassing the protection provided by the proposed SCCE and relief rig requirements (30 CFR 250.141). This provision enables operators to request approval for innovative technological advancements that may provide them additional flexibility, provided that the operator can establish that such technology provides at least the same level of protection as the proposed requirements.

D. Planning for the Variability and Challenges of the Arctic OCS Conditions – Reliable weather and ice forecasting play a significant role in ensuring safe operations on the Arctic OCS. Advanced forecasting and tracking technology, information sharing among industry and government, and local knowledge of the operating environment are essential to managing the substantial challenges and risks that Arctic OCS Conditions pose for all offshore operations. In light of the threats posed by ice and extreme weather events, BOEM and BSEE propose to require that operators include in their IOPs, EPs, and APDs, at appropriate levels of specificity for each document, a description of their weather and ice forecasting capabilities for all phases of their exploration program and their alert procedures and thresholds for activating ice and weather management systems. Once operations commence, operators would also be required to:

1. Notify BSEE immediately of any sea ice movement or condition that has the potential to affect operations or trigger ice management activities; and

2. Notify BSEE of the start and termination of ice management activities and submit written reports after completing such activities.

E. Arctic OCS Oil Spill Response Preparedness – Operators need to be prepared for a quick and effective response in the event of an oil spill on the Arctic OCS and be ready to coordinate activities with the Federal government and other stakeholders. The OSRPs and related activities should be tailored to the unique Arctic OCS operating environment to ensure that operators have the necessary equipment, training, and personnel for the Arctic OCS. Among other things, this rulemaking would establish specific planning requirements to maximize the application of oil spill response technology and ensure a coordinated response system that is designed to address the challenges inherent to the Arctic region.

F. Reducing Pollution from Arctic OCS Exploratory Drilling Operations – Partners, primarily Alaska Natives, and stakeholders have expressed concern that mud and cuttings from exploratory drilling could adversely affect marine species (*e.g.*, whales and fish) and their habitat and compromise the effectiveness of subsistence hunting activities. Existing environmental analyses support these concerns and also demonstrate that such discharges could affect water quality, benthic habitat, and marine organisms within the localized area (*see, e.g.*, Shell Gulf of Mexico, Inc.'s Revised Chukchi Sea Exploration Plan, Burger Prospect Environmental Assessment (2011)). BSEE proposes to require the capture of all petroleum-based mud and associated cuttings from Arctic OCS exploratory drilling operations to prevent their discharge into the marine environment. The new provision would also clarify the Regional Supervisor's discretionary authority to require that operators capture all water-based mud and associated cuttings from Arctic OCS exploratory drilling operations (after completion of the hole for the conductor casing) to prevent their discharge into the marine environment.

This discretion would be exercised based on various factors such as the proximity of exploratory drilling operations to subsistence hunting and fishing locations or the extent to which such discharges might cause marine mammals to alter their migratory patterns in a manner that interferes with subsistence activities or might adversely affect marine mammals, fish, or their habitat(s).

G. Oversight, Management, and Accountability of Operations and Contractor Support - An effective risk management framework at the beginning of a project incorporates many components, including planning, vessel design, contractor selection, and an assessment of regulatory requirements for all facets of the project. DOI proposes to require that operators provide an explanation, at a conceptual level, of how they would apply their oversight and risk management protocols to both personnel and contractors to support safe and responsible exploratory drilling on the Arctic OCS. It should be noted that these proposed regulations, and DOI's existing regulations concerning OCS oil and gas operations, would require varying levels of information about operator safety and oversight management at progressive stages of the planning and approval process. This would start with the most general information and narrow down to increasing levels of detail with successive regulatory submittals, as the project would proceed from planning to implementation.

In addition, the proposed rule would require Arctic OCS operators to:

1. Report threatening sea ice conditions and ice management activities, and unexpected operational issues that could result in a loss of well control;
2. Increase their BOP pressure testing frequency;

3. Conduct real-time monitoring of various aspects of well operations, *e.g.*, the BOP control system;

4. Increase their SEMS auditing frequency; and

5. Enhance their oil spill preparedness and response capabilities for Arctic OCS operations.

A summary of the major provisions of this rulemaking follows.

IV. Section-By-Section Discussion

This portion of the preamble provides an explanation of the specific regulatory changes proposed in this rule and why they are necessary. At the outset, this discussion addresses the proposed definitions of the terms *Arctic OCS* and *Arctic OCS Conditions* for use in both BOEM's and BSEE's regulations in order to provide context for the rest of the proposed provisions. Since this is a joint BOEM and BSEE proposed rule, the remainder of the Section-by-Section discussion is organized according to how operators would seek to comply with the proposed regulations, rather than the order in which they would appear in the Code of Federal Regulations. After introducing the definitions of *Arctic OCS* (for purposes of proposed §§ 250.105, 254.6, and 550.105) and *Arctic OCS Conditions* (for purposes of proposed §§ 250.105 and 550.105), the Section-by-Section discussion provides an explanation of the remainder of BOEM's proposed regulations (*i.e.*, proposed §§ 550.105, 550.200, 550.204, 550.206, and 550.220), and then follows with the remainder of BSEE's proposed regulations (*i.e.*, proposed §§ 250.105, 250.188, 250.198, 250.300, 250.402, 250.418, 250.447, 250.452, 250.470, 250.471, 250.472, 250.473, and 250.1920; proposed §§ 254.6, 254.55, 254.65, 254.70, 254.80, and 254.90).

Although BSEE permitting and operational requirements appear earlier in Title 30 of the CFR at Part 250, with the BOEM requirements following in 30 CFR Part 550, in practice the IOP and EP phases governed by the 30 CFR Part 550 regulations would precede the drilling approval and oversight phases governed by 30 CFR Part 250 (operations). Requirements to prepare for an oil spill, which are contained in 30 CFR Part 254, may be met at any time before handling, storing, or transporting oil in operations BSEE permits under Part 250. Finally, the Section-by-Section discussion includes a process flowchart of BOEM's and BSEE's current regulatory framework for Arctic OCS exploratory drilling and how the proposed requirements would be integrated into that framework.

A. Definitions (§§ 250.105, 254.6, and 550.105)

Arctic OCS

For the purposes of this proposed rulemaking, *Arctic OCS* is defined as the Beaufort Sea and Chukchi Sea Planning Areas, as described in the Proposed Final OCS Oil and Gas Leasing Program for 2012-2017 (June 2012), available at www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/PFP%2012-17.pdf (*see* pp.21-24). This definition would appear in §§ 250.105, 254.6, and 550.105. As described previously, BOEM and BSEE have determined that these areas are both the subject of current exploration and development interest and subject to conditions that present significant challenges to such operations.

Arctic OCS Conditions

Sections 250.105 and 550.105 would be revised to add a definition for *Arctic OCS Conditions*. The definition is necessary because these proposed regulations are designed largely around the particular challenges presented by Arctic OCS Conditions. The term *Arctic OCS Conditions* would be defined to describe both the environmental conditions and functional characteristics (*e.g.*, geographic remoteness, limited infrastructure, subsistence hunting areas) that oil and gas operators can reasonably expect to encounter during exploratory drilling operations and when responding to a loss of well control on the Arctic OCS. Depending on the time of year, relevant environmental conditions and the proposed definition include, but are not limited to, the following: "extreme cold, freezing spray, snow, extended periods of low light, strong winds, dense fog, sea ice, strong currents, and dangerous sea states." This definition would not affect or alter any other existing Federal regulatory requirements.

It is crucial for OCS oil and gas operators to have a clear understanding of the conditions they would likely encounter during exploratory drilling operations and when responding to a loss of well control on the Arctic OCS. Offshore oil and gas exploration involves inherent risks to human safety and the environment. If not effectively addressed, Arctic OCS Conditions could multiply these risks. Thus, the proposed definition also recognizes that "the Arctic's remote location, limited infrastructure, and existence of subsistence hunting and fishing areas are also characteristic of the Arctic region" and must be considered to ensure safe operations and minimize impacts to the environment and to other users of the area. Addressing these factors would enable industry to proactively safeguard people, facilities, equipment, and the environment.

B. Additional Regulations Proposed by BOEM

Definitions (§ 550.200)

The acronym "IOP" – meaning Integrated Operations Plan – would be inserted into the proper alphabetical location within existing § 550.200, for purposes of the IOP provisions at proposed § 550.204, as discussed next.

When must I submit my IOP for proposed Arctic exploratory drilling operations and what must the IOP include? (§ 550.204)

This proposed rule would require the operator to develop an IOP for each proposed exploratory drilling program on the Arctic OCS, and to submit the IOP to DOI, through its designee, BOEM, at least 90 days in advance of filing its EP. The IOP would need to describe how the proposed exploratory drilling program would be designed and conducted in an integrated manner suitable for Arctic OCS Conditions and would address each of the information requirements identified in proposed § 550.204. Operators may also choose to address the requirements in §§ 550.211 through 550.228, which could facilitate the later formal review of the operator's EP. The IOP should be detailed enough to allow DOI, other relevant Federal agencies, and the State of Alaska to:

1. Familiarize themselves with the proposed operations as an integrated project from start to finish; and

2. Provide constructive feedback to the operator concerning the conceptual plans reflected in its IOP.

DOI recognizes that when the IOP is submitted, operators might not possess all the detailed and specific information that may be more readily available later in the planning process; *e.g.*, contracts for vessels may not be finalized, precise dates of drilling may be uncertain, or the exact staging location of assets, such as the relief rig or SCCE, may be

unknown. For BOEM's and BSEE's purposes, operators would submit more detailed information through the EPs and APDs, as appropriate.

Though BOEM would review the IOP to ensure that the operator's submission addresses each of the elements listed in § 550.204, the IOP would not require approval by DOI or the other relevant agencies. Instead, the IOP would be an informational document intended to facilitate early review of important concepts related to an operator's proposed exploratory drilling program. This review would assist DOI and other relevant agencies in developing an understanding of, and familiarity with, the operator's overall proposed exploratory drilling program early in the planning process.

DOI recognizes that the information requirements of § 550.204 could implicate other Federal agencies' and the State of Alaska's statutory and regulatory mandates. For example, the USCG administers laws and regulations governing maritime safety, security, and environmental protection and is also responsible for inspecting the vessels to which those laws and regulations apply. In acknowledging the USCG's principal jurisdiction over vessel safety and security, DOI has determined that information, early in the process, pertaining to the safety of operations, vessel mobilization, demobilization, and tow plans, is also essential to DOI's statutory and regulatory responsibilities related to Arctic OCS oil and gas activities. The IOP process is intended to facilitate the sharing of information among the relevant Federal agencies and the State of Alaska and to provide the relevant agencies an early opportunity to engage in a meaningful and constructive dialogue with operators, consistent with the policies articulated in E.O. 13580 (Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, discussed earlier).

Upon receipt, DOI would engage fellow members of the Working Group and distribute the IOP to other Federal government agencies involved in the review, approval, or oversight of aspects of OCS operations (*e.g.*, BOEM, BSEE, USFWS, USCG, NOAA, and EPA), as well as the State of Alaska. Early engagement by these entities would allow them to become familiar with the operator's overall proposed exploratory drilling program and could provide a meaningful opportunity to offer early feedback to the operator concerning its proposed activities and any identifiable issues that might affect future permitting decisions. DOI would also encourage the assembly of an interagency coordination team to facilitate and coordinate agency review and feedback. Any feedback could be provided individually by the relevant Federal agencies or the State of Alaska, or collectively through DOI.

BOEM also plans to promptly post each IOP on its website. BOEM would not solicit public input on the IOP; instead, the IOP would be informational only, affording the public an early opportunity to view key concepts of a proposed exploratory program. This effort responds to stakeholder concerns that BOEM does not provide the public with sufficient time to participate meaningfully in BOEM's administrative process for proposed exploratory drilling activities on the Arctic OCS. Typically, the public first becomes aware of an operator's plans for exploratory drilling when the operator submits its EP. BOEM acknowledges that public review periods for EPs are relatively short in duration. However, this is a result of the OCSLA provision that requires BOEM to approve, disapprove, or require modifications to an EP within 30 days of BOEM deeming the EP submitted (43 U.S.C. 1340(c)(1)), thus placing modification of the length of the review period outside the discretion or authority of the agency absent Congressional

action. An early opportunity to view the IOP and the key concepts of the proposed exploratory drilling program, however, will enhance existing public engagement opportunities.

Paragraph (a), Vessels and Equipment

Operators must plan to adapt their exploratory drilling operations to Arctic OCS Conditions. Although generally the equipment for extracting oil and gas from the OCS is the same for the offshore Arctic as anywhere else on the OCS, the equipment might need to be modified, procedures might need to be adjusted, or personnel might need to be specifically trained for work conditions on the Arctic OCS. For example, cranes might need to be modified for operations under ice loading that could be anticipated during Arctic OCS operations, and be de-rated to account for reduced strength in extreme cold temperatures. Accordingly, this provision would require that operators submit, "[i]nformation describing how all vessels and equipment will be designed, built, and/or modified to account for Arctic OCS Conditions" and is designed to ensure that the operator is planning to deploy vessels and equipment capable of operating safely on the Arctic OCS. Operators would need to submit information sufficient to allow DOI and other relevant agencies (*e.g.,* the USCG) to understand the function of each vessel within the proposed fleet of vessels and how the vessels would be capable of performing their identified roles in the proposed exploratory drilling program safely and effectively.

Paragraph (b), Exploratory Drilling Program Schedule

The proposed rule would require the IOP to include an exploratory drilling program schedule of operations including importantly, contractor work on critical components of the program (*e.g*., inspection and testing of critical equipment such as BOPs or SCCE).

Thorough advanced planning regarding the proposed schedule for operations is an important component of the IOP, particularly in light of the limits that returning sea ice can place on the drilling season on the Arctic OCS, and for elements of operations for which operators are relying upon outside contractor deliverables. Furthermore, it is important for BOEM and other relevant agencies to have information regarding how the timing of proposed operations aligns with expected seasonal ice encroachment, as well as how the timing of proposed operations may interact with seasonal marine mammal migrations and subsistence activities, for purposes of understanding the potential environmental impacts. This will help BOEM and other relevant agencies develop an understanding of how the operator proposes to conduct operations safely.

The proposed schedule would need to include, for example, when an operator intends to enter waters overlying the Alaska OCS (including transit time to the proposed drilling site), when drilling is expected to commence and conclude, dates of operations, and when the operator plans to leave the vicinity of drilling operations. The schedule would also need to include the critical dates for completion or activation of components under construction, repair, or storage by outside contractors. This provision would help assure DOI and other relevant agencies that the operator and its contractors have developed a reasonable schedule for executing each phase of the exploration program and are capable of conducting exploratory drilling activities safely in Arctic OCS Conditions.

Paragraph (c), Mobilization and Demobilization

This provision would require operators to include in their IOP a description of their mobilization and demobilization operations, including tow plans suitable for Arctic OCS Conditions, as well as their general maintenance schedules for vessels and equipment.

This element is designed to help DOI and other relevant agencies understand the extent to which operators:

1. Have accounted for the conditions likely to be encountered on the Arctic OCS; and

2. Are prepared to handle the substantial environmental challenges and associated operational risks present throughout the mobilization and demobilization of personnel and equipment.

The requested information would facilitate coordination between DOI and the USCG. Similarly, having information about where vessels would come from and go to before and after entering the waters overlying the Alaska OCS would aid, for example, DOI's and other relevant agencies' early understanding of potential environmental issues, such as aquatic invasive species that might be carried on vessels.

This provision would also require consideration of how repairs to, and maintenance of, vessels and equipment might affect the larger exploratory drilling program. This information could facilitate DOI's and other relevant agencies' understanding of potential environmental considerations and safety aspects of the projected operational schedules.

Paragraph (d), Exploratory Drilling Program Objectives, Timelines, and Contingency Plans

This provision would require operators to include in their IOP a description of their "exploratory drilling program objectives and timelines for each objective, including general plans for abandonment of the well(s)" under a variety of circumstances. This description would help DOI and other relevant agencies familiarize themselves with the operator's plans for a well-designed, safe operation with clear objectives for employees

and contractors that would allow ample flexibility in light of the difficult and variable conditions on the Arctic OCS.

A fully developed exploration program includes, among other things: the operator's general plan of how many wells it plans to drill in a particular season; the timing and sequence of those operations; locations of the wells; necessary equipment and resources, including information on support vessels; and the operator's contingency plans in the event that temporary abandonment would become necessary. To the extent that relevant information submitted with the IOP has not changed, the operator could later incorporate that information into its EP. Thorough advanced planning of the operator's objectives, as well as clear timelines for the accomplishment of each objective, are essential, particularly in light of the limited seasonal drilling window on the Arctic OCS.

Given the uncertainties created by the challenging Arctic OCS Conditions, it is equally essential for an operator to acknowledge and plan for contingencies and delays that might arise. For example, an operator would need to provide general information regarding how it would safely respond to unanticipated ice encroachment at the drill site, including safe and secure temporary abandonment of the well and relocation of the drilling rig, as necessary. DOI would need to be provided with information that explains how the operator has considered these elements of its exploration program, well in advance of operations. Also, if an operator plans to drill multiple wells, DOI must be provided with information regarding the anticipated objectives and timelines for each well. Similarly, an operator would be expected to indicate whether it intends to abandon the well(s) at the end of the season and, if the operator intends to abandon the well, whether such abandonment would be temporary or permanent.

Paragraph (e), Weather and Ice Forecasting and Management

One of the key drivers of this proposed rule is DOI's need to understand how operators would account for the variable conditions on the Arctic OCS and how those conditions might affect drilling activities. One important component of an operator's overall program is accounting for adverse weather and ice conditions and developing a plan to respond to those conditions. Consequently, this provision would require operators to describe their weather and ice forecasting capabilities for all phases of the exploration program, including a description of how they would respond to and manage ice hazards and weather events. The challenges presented by Arctic OCS Conditions are not limited to the period of active drilling operations, but would create difficulties throughout all phases of an exploratory drilling program, including mobilization and demobilization. Accordingly, it is important for DOI and other relevant agencies to understand the operator's plans for implementing ice and weather forecasting and management systems that would be operational around the clock from start to finish.

Paragraph (f), Contractors

This provision would require operators to provide in their IOP a description of work to be performed by contractors supporting their exploratory drilling program (including mobilization and demobilization), how such work would be designed or modified to account for Arctic OCS Conditions, and operators' strategy for contractor management, oversight, and risk management. This information is designed to help DOI and other relevant agencies understand the operator's strategies for developing, early in the planning process, a rigorous and effective operational management and oversight system for its contractors that is specifically tailored for operations on the Arctic OCS.

Information regarding the nature and timeline of operational elements for which the operator would rely on contractors would aid in a full understanding of the various inputs and contingencies that might affect the planned execution of the proposed operations.

The IOP would need to describe, for example, what types of operations the operator would contract out and how the operator would oversee the contractor to ensure the contractor's work product would be suitable for Arctic OCS operations. At the IOP stage, the specific names of contractors would not be necessary but could be provided, if known. The focus of this proposed requirement is to facilitate DOI's and other relevant agencies' understanding of how the operator plans to rely on contractors and how it plans to manage its contractor relationships in order to ensure safe and responsible drilling operations.

Paragraph (g), Safety

BOEM proposes to require that operators include in their IOP a description of how they "will ensure operational safety while working in Arctic OCS Conditions," including but not limited to, the safety principles applicable to operators and their contractors, the accountability structure within operators' organizations for implementing these principles, how operators would communicate these principles to their employees and contractors, and how operators would determine successful implementation of these principles.

The OCSLA provides that all operations taking place on the OCS "should be conducted in a safe manner by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of blowouts, loss of well control, fires, spillages, physical obstruction to other users of the waters or subsoil and

seabed, or other occurrences which may cause damage to the environment or to property, or endanger life or health" (43 U.S.C. 1332(6)). Also, operators are required to demonstrate through their EPs and APDs that they have planned and are prepared to conduct activities in a manner that conforms to the OCSLA and applicable implementing regulations, and that their activities will be conducted safely *(see* 43 U.S.C. 1340(c)(1); 30 CFR 250.106, 250.107, 550.202 paragraphs (a) and (b)). The proposed safety information requirement would help DOI and other relevant agencies (*e.g.*, USCG) familiarize themselves with the operator's early consideration of how its proposed exploratory drilling program would proceed in a safe manner with appropriate caution and respect for the extreme and unpredictable conditions found offshore in the Arctic and would be consistent with DOI's and other relevant agencies' safety requirements.

This proposed safety information element is also intended to complement BSEE's SEMS program by requiring operators to identify and assess, early in the planning stages of their proposed exploratory drilling program, their guiding principles for safe Arctic OCS operations, and optimal strategies for implementing those principles throughout their workforce.

Proposed 30 CFR 550.204(g) would not require an operator to provide the same level of detail, if not available, concerning safety of operations as would be available at the time of the EP and APD, or to duplicate the detail provided in its USCG Safety Management System program or its BSEE SEMS program. Instead, the IOP would need to provide a general understanding of the principles that operators would follow to manage risks to ensure safety of all exploratory drilling activities and personnel vis-à-vis the conditions likely to be encountered on the Arctic OCS. For example, it is reasonably

expected that operators would experience freezing spray, extended periods of low light, strong winds, and dense fog during operations. Operators would need to provide a general description of how they would account for these conditions, and any guiding principles they would follow to minimize risk to operations, personnel, vessels, and other equipment.

Paragraph (h), Staging of Oil Spill Response Assets

BOEM proposes to require that operators include in their IOP information regarding their "preparations and plans for staging of oil spill response assets." This provision would facilitate DOI's, and other relevant agencies' (*e.g.*, USCG), early understanding of the potential effects on local communities from staging spill response assets near coastal communities, the safety and environmental implications of plans for mobilization and demobilization of related vessels and equipment, the potential environmental impacts of the vessels staged in the area for response, and anticipated response times based on where the equipment will be located. This information would be especially relevant to the USCG, which is the Federal On Scene Coordinator responsible for developing the North Slope Sub-Area Contingency Plan for Oil and Hazardous Substances Discharges/Releases. The USCG and all appropriate governmental entities at the State and local levels would have an early understanding of the proposed activities.

Paragraph (i), Impact of Exploratory Drilling on Local Community Infrastructure

BOEM proposes to require that operators include in their IOP, a description of their "efforts to minimize impacts of [their] exploratory drilling operations on local community infrastructure, including but not limited to housing, energy supplies, and services." This provision would facilitate DOI's and other relevant agencies' early

understanding of the potential socioeconomic implications of the proposed exploratory drilling program, including the extent to which the proposed activities might strain the limited infrastructure of coastal communities in the Arctic, or reduce the availability of housing, energy, food, and health care to local communities through increased demand and higher costs caused by the presence of persons supporting the exploratory drilling program.

Paragraph (j), Local Community Workforce and Response Capacity

BOEM proposes to require that operators include in their IOP "[a] description of whether and to what extent your project will rely on local community workforce and spill cleanup response capacity." This provision would encourage operators to engage in early planning toward providing local communities, which would incur the greatest risk of offshore exploration activities, with the capacity - both in terms of training and resources - to protect their communities and important subsistence use areas. It is intended to provide DOI and other relevant agencies with early insight into whether the proposed operations are being planned safely, with appropriate environmental safeguards and respect for the other users of area resources. This provision would also allow DOI to develop an early understanding of industry's efforts to promote local communities' ability to participate in and obtain benefit from future Arctic OCS oil and gas development.

How do I submit the IOP, EP, DPP, or DOCD? (§ 550.206)

DOI recognizes that operators may consider some of the information required by proposed § 550.204 to be proprietary or commercial in nature. Pursuant to the proposed revisions to § 550.206, operators would be able to request the nondisclosure of

this information using established DOI processes. As is currently the case with EPs, Development and Production Plans (DPPs), and Development Operations Coordination Documents (DOCDs), operators requesting the nondisclosure of portions of an IOP should provide BOEM with two separate versions of the IOP; a public version from which potentially exempt information is redacted, and a BOEM version with such information present, but clearly marked as proprietary.

If I propose activities in the Alaska OCS Region, what planning information must accompany the EP? (§ 550.220)

As described previously, drilling operations, especially on the Arctic OCS, can be complex, and operators may face substantial environmental challenges and operational risks throughout every phase of the endeavor. One of the main goals of this rulemaking is to ensure, through thorough advanced planning, that operators are capable of operating safely in the extreme and challenging Arctic OCS Conditions.

BOEM first proposes to amend the existing "Emergency Plans" provision at § 550.220(a) to add fire, explosion, and personnel evacuation to the events for which emergency plans are required, and to replace the terms "blowout" with "loss of well control" and "craft" with "vessel, offshore vehicle, or aircraft" for clarification purposes.

BOEM next proposes to create a new § 550.220(c), which would set forth additional information requirements for EPs that are proposing exploration activities on the Arctic OCS. BOEM proposes to add a new performance-based provision at § 550.220(c)(1) that would require an operator to describe how its proposed activities would be designed and conducted in a manner suitable for Arctic OCS Conditions and how these activities would be managed and overseen as an integrated endeavor. This description may be

summarized from the operator's IOP or, if appropriate, updated with any information not available at the time of the IOP.

BOEM also proposes to add § 550.220(c)(2), which would require operators to include, as part of their EP submissions, more detailed and updated information concerning their weather and ice forecasting and management plans for all phases of their exploratory drilling activities, including: a description of how they would respond to and manage ice hazards and weather events; their ice and weather alert procedures; their procedures and thresholds for activating their ice and weather management systems; and confirmation that their ice and weather management and alert systems would be operated continuously throughout the planned operations. As described previously, DOI needs to be certain that adequate forecasting equipment and procedures are in place to predict and follow developing weather and ice conditions that might pose a risk to operations. Also, it is essential that operators develop and describe their pre-established thresholds for triggering varying levels of responsive actions in the face of weather and ice threats, as well as the procedures and equipment necessary to respond to these hazards. Furthermore, operators need to demonstrate that they would be capable of responding to and managing these conditions to prevent or minimize the risks associated with ice and adverse weather.

BOEM next proposes to require preliminary information concerning SCCE capabilities, deployment of a relief well rig, and sharing of SCCE and spill response and cleanup assets. The proposed informational requirements concerning SCCE and relief well rigs relate to the operator's preliminary plans for complying with BSEE's proposed regulations at 30 CFR 250.471 and 250.472, which will be described later.

Requiring information about how an operator intends to satisfy the proposed BSEE regulations at proposed 30 CFR 250.471 and 250.472 would allow consideration of these issues at an early planning stage, and would further inform BOEM's review of proposed EPs under § 550.202, and other applicable laws. It would likewise reduce the risk of discrepancy between reviews and approvals conducted at the EP stage and an operator's later-submitted APD. While BOEM anticipates that elements of the SCCE description required by proposed § 550.220(c)(3) and the relief well rig description required by proposed § 550.220(c)(4) may be general at the EP stage, they must be detailed enough for BOEM to confirm that the operator would have plans in place for how it would conduct its operations safely, in conformance with applicable regulations. The description would also need to be detailed enough to enable BOEM to evaluate the potential environmental implications of proposed SCCE and relief well rig staging and operations. Proposed § 550.220(c)(4) would set forth some of the information expected to be available about the relief well rig when the EP is submitted.

The proposed § 550.220(c)(5) provision would add an informational requirement concerning any agreements the operator might have with third parties for the sharing of assets (*e.g.*, SCCE, relief rigs, and oil spill response resources) and/or any agreements to assist each other in response and cleanup efforts in the event of a loss of well control or other emergency. A cooperative, consortium-based model should offer:

1. Logistical, operational, and commercial efficiencies;
2. Less duplication of personnel and equipment;
3. Reduced monetary cost of exploration;
4. Reduced environmental footprint;
5. Reduced social costs and interference with other users of the OCS; and

6. A coordinated response and cleanup effort in the event of a loss of well control.

BOEM's environmental impact analyses have repeatedly shown that the presence of vessels, aircraft, and other equipment within the Arctic region could result in adverse impacts to subsistence activities and to environmental resources (*e.g.*, noise impacts on marine mammals, increased risk of bird or marine mammal collisions, increased risk of fuel spills, and increased air emissions). The potential effects would be compounded if multiple operators – each fielding its own fleet of drilling, resupply, and emergency response vessels – were to engage in activities simultaneously. Avoiding duplication of relief well rigs, oil spill response assets, and other emergency response vessels and equipment would be an effective means to minimize environmental and social impacts.

BOEM and BSEE strongly encourage operators proposing exploratory drilling activities on the Arctic OCS to enter into mutual aid agreements for the sharing of vessels, relief well rigs, and other assets or services associated with responding to an oil spill or other emergency. Notice of these arrangements would inform BOEM's and BSEE's safety and environmental review of proposed activities to ensure operators are fully prepared to respond to a loss of well control. Also, BOEM and BSEE expect that operators, when planning a response to a loss of well control, would ensure that an effective and immediate removal, mitigation, or prevention of a discharge could be achieved, to the greatest extent practicable, using private sector capability.

Finally, proposed § 550.220(c)(6) would add an informational requirement concerning the conclusion of on-site operations at the end of the season. An operator would include a projected date, and information used to determine the date, when on-site operations would be completed based on ice conditions that will likely exist in the

relevant operational area (using current Federal ice and weather forecasts or other reliable forecasting systems). An operator would also provide a projected date, and supporting information, on when the operator would stop drilling operations into zones capable of flowing liquid hydrocarbons to the surface. That date would need to be consistent with the relief rig planning requirements under proposed 30 CFR 250.472 and with the estimated timeframe for deployment of a relief rig under proposed § 550.220(c)(4).

There is no single, definitive "end of drilling season" in the Arctic OCS. The projected end-of-season dates in any specific EP should be based on a variety of factors, including the operator's equipment, procedures, and capability to effectively manage and mitigate risk that are reasonably likely to occur. Other factors include, but are not limited to, the prevailing meteorologic and oceanic conditions, which vary from year to year, and the location of proposed drilling. For example, in a year when the encroachment of sea ice is projected to occur later, an operator may be able to justify a later end of season and avoid the need to cease drilling operations earlier than necessary. By contrast, in a year when the onset of sea ice is projected to occur earlier, the operator would need to plan to conclude on-site operations earlier.

In projecting when to conclude on-site operations, BOEM and BSEE expect operators to be flexible and fully responsive to the latest ice and weather forecasts and the best available information for ensuring optimal timing for the end of on-site operations. Of course, after an EP is approved, an operator may request approval to revise its EP if available information regarding its operations and anticipated meteorologic and oceanic conditions change.

For example, BOEM's approval for Shell's 2012 Arctic operations required drilling

operations in zones where measurable quantities of liquid hydrocarbons were capable of flowing into the well to be concluded 38 days prior to November 1, based on satellite imagery showing the five-year historical average of earliest sea ice encroachment over Shell's drill site and estimates of the time needed to drill a relief well. The purpose of this drilling hiatus was to reduce project risk by assuring a greater opportunity for response and cleanup in the unlikely event of a late season oil spill.

BOEM and BSEE invite comments on what kinds of Arctic weather and ice forecasting options are currently (or expected to be) available for use by operators. In addition, comments may address other factors that should be considered in determining when on-site operations are expected to be completed, or when drilling into certain hydrocarbon zones should cease each year, given an operator's response and cleanup capabilities.

C. Additional Regulations Proposed by BSEE

Authority

The authority citation for 30 CFR Part 250 would be amended to add reference to 33 U.S.C. 1321(j)(1)(C). This statutory provision, in addition to section 5 of the OCSLA (43 U.S.C. 1334), provides authority to DOI for the portions of the proposed revisions to § 250.300 related to preventing discharge of petroleum-based mud and cuttings from operations that use petroleum-based mud. For further explanation of those provisions, see the discussion under that section.

Definitions (§ 250.105)

This section would be revised to add definitions for *Arctic OCS*, *Arctic OCS Conditions*, *Cap and Flow System*, *Capping Stack*, *Containment Dome*, and *Source*

Control and Containment Equipment. For an explanation of the definitions of *Arctic OCS* and *Arctic OCS Conditions*, see the discussion of definitions at the beginning of the Section-by-Section analysis. The remaining definitions are necessary because these proposed regulations would require the defined systems and equipment under identified circumstances. In addition, the definition of *District Manager* would be revised for activities on the Alaska OCS such that District Manager would mean Regional Supervisor, because the Regional Supervisor in BSEE's Alaska OCS region performs the District Manager's duties.

Cap and Flow System – this term would be defined to mean an integrated suite of equipment and vessels, including a capping stack and associated flow lines, that, when installed or positioned, is used to control the flow of fluids escaping from the well by conveying the fluids to the surface to a vessel or facility equipped to process the flow of oil, gas, and water. A cap and flow system is a high pressure system that includes the capping stack and piping necessary to convey the flowing fluids through the choke manifold to the surface equipment. When a responsible party has been able to successfully cap a well, but conditions will not allow the well to be shut in (*e.g.*, due to damage, equipment failure or pressure constraints), the cap and flow system allows the well cap to be used as a connection for the flow lines that transport well fluids to the surface for capture and disposition. In some circumstances, this can relieve the pressure on the capping device or tubulars at the well head or in the well while maintaining or reestablishing control of the produced fluids, or a portion thereof.

Capping Stack – this term would be defined to mean a mechanical device that can be installed on top of a subsea or surface wellhead or BOP to stop the flow of fluids into the

environment. A capping stack's primary function is to stop the uncontrolled flow of fluids from a well to the environment in the event that other intervention methods, such as a BOP, would fail. The capping stack is attached to a connector or pipe stub located on or in the well to achieve a pressure-tight seal that would either stop the flow or direct it into a conduit that would transmit the fluids to a surface facility that is able to store, process, or properly dispose of the fluids. Capping stacks may be deployed from the surface to the well head, as needed, or prepositioned below the riser system when the BOP is located on the deck of a MODU. The pre-positioned capping stack may be created by adapting an auxiliary subsea intervention device to meet the requirements of this proposed rule.

Containment Dome – this term would be defined to mean a non-pressurized container that can be used to collect fluids escaping from the well or equipment below the sea surface or from seeps by suspending the device over the discharge or seep location. A containment dome, also known as a "sombrero," "cofferdam," or "hat," captures fluids after they have escaped the well, subsea equipment, or a seep, but before they have reached the surface. It consists of a structure that has the ability to capture fluids rising through the water column and to convey the fluids to a surface vessel or facility for processing or disposal. If a cap and flow system is unable to stop or control the flow of fluids to the environment, or the well system is so damaged that a capping stack cannot make a successful connection, the containment dome system would be needed to capture the hydrocarbons flowing to the environment.

Source Control and Containment Equipment (SCCE) – SCCE would be defined to mean the capping stack, cap and flow system, containment dome, and/or other subsea and

surface devices, equipment, and vessels whose collective purpose is to control a spill source and stop the flow of fluids into the environment or to contain fluids being discharged into the environment for proper processing or disposal. This definition is useful for referring collectively to the various independent elements of an operator's SCCE in portions of the proposed rule that would apply to any such equipment and its capabilities as a unified system, rather than a specific type of SCCE *(see, e.g.,* proposed § 250.470(f)). The SCCE serves the purpose of stopping or minimizing the flow of hydrocarbons into the environment after a loss of well control event has occurred. The term "surface devices" within the definition of *SCCE* refers to equipment mounted or staged on a barge, vessel, or facility. The purpose of this equipment is to separate, treat, store and/or dispose of fluids conveyed to the surface by the cap and flow system or the containment dome. The SCCE, however, does not include a BOP or similar equipment that is used in ordinary operations and functions to maintain well control under normal operational conditions or to prevent a loss of well control. Finally, "subsea devices" includes, but is not limited to, remotely operated vehicles (ROV), anchors, buoyancy equipment, connectors, cameras, controls and other subsea equipment necessary to facilitate the deployment, operation and retrieval of the SCCE.

What incidents must I report to BSEE and when must I report them? (§ 250.188)

The current regulation requires operators to provide oral and written notification to the BSEE District Manager (who in the Alaska OCS region is the Regional Supervisor) of, among other things, any injuries, fatalities, losses of well control, fires and explosions, and incidents affecting operations. BSEE proposes to add a new paragraph (c) to this section that would require operators on the Arctic OCS to provide an immediate oral

report to the BSEE onsite inspector, if one is present, or to the Regional Supervisor of any sea ice movement or condition that has the potential to affect operations or trigger ice management activities, as well as the start and termination of these activities, and any "kicks" or operational issues that are unexpected and could result in the loss of well control.

Sea ice, if not properly managed, can have a major effect on exploratory drilling operations. Spring and summer thawing can produce large ice masses on the waters overlying the Arctic OCS, which could cause substantial damage to exploratory drilling equipment and render operations unsafe, leading to injury, loss of life, or environmental harm. For example, if the well is not properly protected, sea ice that is moving through the surrounding water could cause a loss of well control by damaging the well head and triggering the discharge of hydrocarbons into the marine environment. Ice management activities, as described in an operator's ice management plan, could include physically changing the direction of an ice floe or using ice breaking techniques in order to minimize the likelihood of damage to the exploratory drilling equipment.

It is essential for operators to remain in close communication with BSEE about sea ice in the area that has the potential to affect operations. Just as the operator needs to have sufficient time to act in the event that ice poses an operational hazard, BSEE would need sufficient time to oversee the safety of an operator's reactions and prepare to respond if a response is necessary due to a safety or environmental incident resulting from an ice event.

The proposed paragraph (c) would require the operator to immediately notify the BSEE inspector on location or the Regional Supervisor of any event that, pursuant to the

hazard thresholds identified in its EP, would trigger a heightened observation requirement, or could potentially result in the need to physically manage ice, initiate operations to secure the well, or move the drilling rig to avoid a threat caused by floating ice. This provision would also require immediate oral notification of the commencement and completion of any ice management activities.

The oral report required by this provision could be a simple direct oral notification of the basic facts surrounding the relevant circumstances, and would not need to contain all of the detail required of oral reports pursuant to § 250.189. The proposed provision would also require a follow-up written report regarding any ice management activities undertaken by the operator that must be submitted within 24 hours following completion of those activities.

BSEE proposes this tighter 24-hour timeline (as opposed to, and in lieu of, the standard 15 day window under § 250.190) due to the immediacy of the threats and concerns presented by circumstances requiring ice management activities, and the need for BSEE to remain abreast of those events in its regulatory and safety oversight role. The written report may be submitted via e-mail or other electronic means to the inspector or Regional Supervisor and must conform to the content requirements set forth in § 250.190.

Finally, BSEE proposes to require that operators submit an immediate oral report of any “kicks” or operational issues that are unexpected and could result in the loss of well control. Operators on the Alaska OCS currently have to report kicks at the end of every day on the well activity report Form BSEE-0133, as required by § 250.468. However, the proposed requirements of this section mean operators would not be allowed to wait

until the end of the day or some time later to fill out a form. If a kick occurred, they would have to provide an immediate oral report. The nature of Arctic OCS Conditions, as defined in this proposed rule, demonstrates that responding to a spill in the Arctic region would be a difficult task. Reporting kicks right away is a safety measure that can improve the ability of both inspectors and operators to potentially prevent a loss of well control.

Documents incorporated by reference. (§ 250.198)

The proposed rule would add subsection (h)(89) to existing § 250.198 as a reference to the American Petroleum Institute (API) proposed draft Recommended Practice (RP) 2N, *Recommended Practice for Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions,* Third Edition. This document will be a voluntary consensus standard addressing the unique Arctic OCS Conditions that affect the planning, design, and construction of systems used in Arctic and sub-Arctic environments. This API document—which is virtually identical to a standard previously issued by the International Organization for Standardization (ISO), "Petroleum and Natural Gas Industries Arctic Offshore Structures," First Edition (2010) (ISO 19906)—would be appropriate for certain aspects of drilling operations, such as accounting for the severe weather and thermal effects on structures, maintenance procedures, and safety. Since this proposed rule is focused on the exploratory drilling phase of operations on the Arctic OCS, certain portions of API RP 2N, Third Edition (such as those related to issues regarding structural and pipeline integrity) would not be relevant to the exploration stage. However, many elements of that document, when published, could be effectively applied to equipment used in exploratory drilling operations on the Arctic OCS. Therefore,

proposed §§ 250.198(h)(89) and 250.470(g) would incorporate appropriate elements of API RP 2N, Third Edition, for purposes of APD information requirements.

A voluntary consensus standard indicates acceptance and recognition across the industry that certain technology is feasible. For example, API standards are created with input from oil and gas operators, drilling contractors, service companies, consultants, and regulators. Even though the development of a consensus standard does not necessarily represent a unanimous agreement by the developing body's members, the API process provides a means for industry and regulatory bodies to provide input into the development of protocols for the highly specialized equipment and procedures used in oil and gas operations. In the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113, 15 U.S.C. 3701 note), Congress directed Federal agencies to use technical standards that are developed or adopted by voluntary consensus standards bodies in lieu of government-unique standards, unless inconsistent with applicable law or otherwise impractical (*see* OMB Circular A-119 (Revised), February 1998, available at www.standards.gov/standards_gov/nttaa.cfm).

BSEE frequently uses standards (*e.g.*, codes, specifications, RPs) developed through a consensus process, facilitated by standards development organizations and with input from the oil and gas industry, as a means of establishing requirements for activities on the OCS. BSEE may incorporate these standards into its final regulations without publishing the standards in their entirety in the Code of Federal Regulations, a practice known as incorporation by reference. The legal effect of incorporation by reference is that the incorporated standards become regulatory requirements. Material incorporated in a final rule, like any other properly issued regulation, has the force and effect of law, and BSEE

holds operators, lessees and other regulated parties accountable for complying with the documents incorporated by reference in its final regulations. BSEE currently incorporates by reference over 100 consensus standards in its offshore regulations governing oil and gas operations (*see* 30 CFR 250.198).

Federal regulations at 1 CFR Part 51 govern how BSEE and other Federal agencies incorporate various documents by reference. Agencies may only incorporate a document by reference in a final rule by publishing the document title, edition, date, author, publisher, identification number and other specified information in the *Federal Register*. The Director of the Federal Register must approve each publication incorporated by reference in a final rule. Incorporation by reference of a document or publication in a final rule is limited to the specific edition approved by the Director of the Federal Register.

Availability of Incorporated Documents for Public Viewing

When a copyrighted industry standard is incorporated by reference into our regulations, BSEE is obligated to observe and protect that copyright. We typically provide members of the public with website addresses where these standards may be accessed for viewing—sometimes for free and sometimes for a fee. The decision to charge a fee is made by each standards development organization. The API provides free online public access to at least 160 key industry standards, including a broad range of technical standards. Those standards represent almost one-third of all API standards and include all that are safety-related or are incorporated into Federal regulations. These standards are available for review, and hard copies and printable versions will continue to be available for purchase through API. BSEE proposes to incorporate, with certain

exclusions discussed later in this proposed rule, draft proposed API RP 2N, Third Edition, which is available for free public viewing during the API balloting process on API's website at http://mycommittees.api.org/standards/ecs/sc2/default.aspx (click on the title of the document to open). When finalized by API, that standard will be available for free public viewing on API's website at: http://publications.api.org.[5]

In addition, as explained later in this proposed rule, BSEE is considering incorporating by reference ISO 19906 in lieu of API RP 2N, Third Edition. ISO standards are available for purchase from ISO at ISO's publications website at: http://www.iso.org/iso/home/store/catalogue_ics.htm or from commercial vendors.[6]

For the convenience of the viewing public who may not wish to purchase or view incorporated documents online, they may be inspected, upon request, at our office, 381 Elden Street, Room 3313, Herndon, Virginia 20170 (phone: 703-787-1587); or at the National Archives and Records Administration (NARA). For information on the availability of materials at NARA, call 202-741-6030, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

If API RP 2N, Third Edition, is incorporated into the final rule, it would continue to be made available for public viewing, when requested, at the addresses indicated in the prior paragraph. Specific information on where incorporated documents can be inspected or obtained is also found at § 250.198, *Documents incorporated by reference*.

---

[5] To access a standard at that API website, first log-in or create a new account, accept API's "Terms and Conditions," then click on the "Browse Documents" button, and then select the applicable category (*e.g.*, "Exploration and Production") for the particular standard(s) you wish to review.

[6] Copies of the ISO standards referred to in this proposed rule may also be viewed, upon request, at BSEE's Regional Offices for Alaska (3801 Centerpoint Dr., Suite 500, Anchorage, AK; 907-334-5300), the Pacific (760 Paseo Camarillo, Camarillo, CA; 805-384-6300), and the Gulf of Mexico (1201 Elmwood Park Blvd., Nw Orleans, LA; 1-800-672-2627) and at BSEE's Houston office (701 San Jacinto St., Rm. 115, Houston, TX; 713-220-9201).

Pollution prevention. (§ 250.300)

This section would revise BSEE's pollution prevention regulation as it pertains to Arctic OCS exploratory drilling operations. Spent mud and cuttings are generated during exploratory drilling. Drilling mud may be entirely water-based or may include petroleum (*i.e.*, oil) as a component. Cuttings generated using petroleum-based mud would be oil-contaminated, and the discharge of the mud or cuttings into the environment would result in discharge of that oil into the environment. The proposed rule would add provisions in paragraphs (b)(1) and (b)(2) requiring that, during exploratory drilling operations on the Arctic OCS, the operator must capture all petroleum-based mud, and associated cuttings from operations that use petroleum-based mud, to prevent their discharge into the marine environment. These subparagraphs would also clarify the Regional Supervisor's discretionary authority to require operators to also capture all water-based mud and associated cuttings from Arctic OCS exploratory drilling operations (after completion of the hole for the conductor casing) to prevent their discharge into the marine environment, based on factors including, but not limited to:

1. The proximity of the exploratory drilling operations to subsistence hunting and fishing locations;

2. The extent to which discharged mud or cuttings may cause marine mammals to alter their migratory patterns in a manner that interferes with subsistence activities; or

3. The extent to which discharged mud or cuttings may adversely affect marine mammals, fish, or their habitat.

BSEE regulates discharges of mud and cuttings from OCS facilities under the OCSLA, which contemplates the imposition of environmental safeguards for oil and gas

activities on the OCS and mandates that they be conducted in a manner that prevents or minimizes the likelihood of damage to the environment. The President has also delegated authority to the Secretary (further delegated to BSEE) to regulate discharges of oil under Section 311 of the CWA, 33 U.S.C. 1321, which calls for the issuance of regulations establishing procedures, methods, and equipment to prevent discharges of oil and hazardous substances from offshore facilities, and to contain such discharges. BSEE's pollution prevention regulations are intended to complement requirements imposed by the EPA under the CWA. For example, in November 2012, the EPA issued general National Pollutant Discharge Elimination System (NPDES) permits authorizing certain discharges from oil and gas exploratory facilities to Federal waters in the Beaufort Sea and the Chukchi Sea, including certain discharges of water-based drilling fluids and drill cuttings, subject to effluent limitations and other requirements. Of note, the EPA NPDES permits do not allow the discharge of oil-based drilling fluids, or the discharge of water-based drilling fluids and drill cuttings during the fall bowhead whale hunt in the Beaufort Sea. BSEE's proposed regulations clarify the Regional Supervisor's authority to impose operational measures that complement EPA's discharge limitations by considering potential impacts to specific components of the Arctic environment, such as subsistence activities, marine resources, and coastal areas.

The discharge of mud and cuttings has the potential to affect marine mammals, fish, and their habitat, as well as subsistence activities present in the Arctic region. As noted earlier, subsistence hunting is central to the food supply and cultural traditions of many Alaska Natives. BSEE proposes to clarify its authority to limit discharges of any mud

and cuttings having the potential to adversely impact marine wildlife or to disrupt subsistence hunting activities.

For example, existing environmental analyses show that the release of drill cuttings and drilling mud would result in increased turbidity and concentrations of total suspended solids in the water column, which could displace marine mammals from the drill sites and could adversely affect habitat and prey within and around the drill site *(see* Shell Gulf of Mexico, Inc.'s Revised Chukchi Sea Exploration Plan Burger Prospect Environmental Assessment (2011)). In addition, subsistence hunters, who rely on traditional ecological knowledge, have expressed concern to BOEM and BSEE that whales are capable of detecting the odors from mud and cuttings and will avoid areas where these discharges occur, resulting in similar effects. Hunting farther away from shore to find displaced whales can increase transit time, reduce the likelihood of successful harvests, increase exposure to adverse weather and dangerous sea states, and increase safety concerns for subsistence hunters. Finally, the farther away whales are harvested from a community, the greater the length of towing time necessary to bring the animals back to shore for processing. This increased tow time could negatively affect the viability of the meat and blubber for food because of spoilage.

Marine mammal migrations and subsistence hunting patterns vary greatly in different areas of the Arctic region and at different times of the year. These proposed rules would therefore clarify the Regional Supervisor's discretion to require the capture of water-based mud and cuttings, taking into account location- and season-specific circumstances (such as subsistence hunting). In addition, other relevant circumstances, such as applicable provisions of a NPDES general permit, can be considered when exercising that

discretionary authority. BSEE invites comments on the potential costs to the industry of limiting or prohibiting the discharge of mud and cuttings that otherwise would not be prohibited by the NPDES general permits.

When and how must I secure a well? (§ 250.402)

The current regulation requires, among other things, that operators install a downhole safety device at an appropriate depth whenever there is an interruption in drilling operations. BSEE proposes to add a new paragraph (c)(1), which would require exploratory drilling operators on the Arctic OCS to ensure that any equipment left on, near, or in a temporarily abandoned well that has penetrated below the surface casing be secured in a way that would protect the well head and prevent or minimize the likelihood of the integrity of the well or plugs being compromised. The primary concern this proposed language is designed to address is the possibility that ice floes could sever, dislodge, or drag any exploration-related equipment, obstructions or protrusions left on the well or the adjacent seafloor. The proposed language, however, is drafted to encompass damage from any foreseeable source. The provision in paragraph (c)(1) is designed to be performance-based, would allow operators to devise optimal strategies for identifying and accounting for threats to the integrity of equipment left on the OCS, and would be limited only to exploration wells that have penetrated below the surface casing. However, for exploration wells located in an area subject to ice scour, based on a shallow hazards survey, proposed paragraph (c)(2) would require a mudline cellar or equivalent means of protection. The BSEE Regional Supervisor will evaluate, during the APD process, whether a proposed equivalent approach is sufficiently protective.

There are a number of problems that could occur if operators did not adhere to this proposed requirement. For example, if an ice floe were to contact equipment left on, near, or in a well that had penetrated hydrocarbons, the impact could damage the well and potentially compromise the cement, casing, or safety valves and plugs inside the well and could result in the discharge of hydrocarbons.

What additional information must I submit with my APD? (§ 250.418)

BSEE proposes to add a new paragraph (k) to this section, providing that the information identified in proposed § 250.470 must be submitted with an APD for exploratory drilling on the Arctic OCS. The information required in the proposed section would be necessary to inform BSEE's evaluation of APDs for Arctic OCS exploratory drilling operations (*see* discussion of proposed § 250.470).

When must I pressure test the BOP system? (§ 250.447)

The current regulation requires operators to pressure test a BOP system when it is installed, at specified time intervals, and prior to drilling out each string of casing or a liner. BSEE proposes to revise paragraph (b) of this section to require a BOP pressure test frequency of one test every 7 days for Arctic OCS exploratory drilling operations. However, there is some debate over whether more frequent testing, beyond the 14-day test frequency prescribed by existing regulations, would be necessary or advisable.

The effectiveness of hydrostatic pressure testing of BOPs has been questioned in the past. The industry has argued that increasing the number of pressure tests: (1) may reduce the reliability of the equipment by degrading the sealing capability of the elements within the BOP stack; and (2) does not necessarily demonstrate the future performance of the equipment. Furthermore, the industry has claimed that the requirement for operators

to stop drilling operations to perform a pressure test could ultimately increase the likelihood of an incident occurring. Due to these safety and cost concerns, the industry has sought to reduce the current testing frequency for this equipment (*i.e.*, to longer than every 14 days).

Ensuring the proper functioning of a BOP, which is a critical line of defense against loss of well control, is essential to Arctic OCS drilling operations. BSEE is concerned that the integrity of BOPs could be compromised by Arctic conditions; in particular, BSEE is concerned about the possible effects of extreme weather conditions on BOPs maintained on surface vessels or facilities (such as jackup rigs). At this time, pressure tests and functional tests are the primary methods for ensuring the performance of BOPs. A 7-day BOP testing cycle was proposed by Shell in 2012, and ultimately approved by BSEE, and we propose to require a similar testing frequency for all Arctic OCS exploratory drilling operations. BSEE specifically requests comments on the appropriateness of the proposed 7-day testing frequency to demonstrate the reliability of the equipment under Arctic conditions. BSEE also requests that commenters identify any additional safety issues that might arise from this increased testing and that would be unique to Arctic operations. In addition, BSEE invites comments on all potential drilling impacts related to the proposed 7-day testing frequency.

Note that the only proposed changes to the existing BOP testing regulation are the phrases specific to exploratory drilling on the Arctic OCS. The remaining language is identical to the wording currently at § 250.447(b) and is duplicated in this proposed rule for readability.

What are the real-time monitoring requirements for Arctic OCS exploratory drilling operations? (§ 250.452)

BSEE proposes to add a new performance-based section in Part 250 that would require real-time data gathering on the BOP control system, the fluid handling systems on the rig, and, if a downhole sensing system is installed, the well's downhole conditions during Arctic OCS exploratory drilling operations. In addition, this section would require operators to transmit immediately the data during operations to an onshore location, identified to BSEE prior to well operations, where it must be stored and monitored by personnel who would be capable of interpreting the data and have the authority, in consultation with rig personnel, to initiate any necessary action in response to abnormal events or data. Such personnel must also have the capability for continuous and reliable contact with rig personnel, to ensure the ability to communicate information or instructions between the rig and onshore facility in real-time, while operations are underway.

This section would be added, in part, based on multiple recommendations from various *Deepwater Horizon* investigation reports. Having the real-time, well-related data available to onshore personnel would increase the level of oversight of well conditions during operations. Onshore personnel could review data and help rig personnel conduct operations in a safe manner. Also, onshore personnel would be able to assist the rig crew in identifying and evaluating abnormalities that might arise during operations. This section would also require that the real-time monitoring data be available to BSEE upon request, to enable BSEE to perform its oversight role and to monitor responses to events as they unfold. Finally, this section would, consistent with §§ 250.466 and 250.467,

require that the data gathered be stored at a designated location for recordkeeping purposes after operations have concluded, to enable BSEE to perform audits, investigations, or other types of analyses, as part of its regulatory oversight functions.

The following undesignated centered heading would be inserted above proposed § 250.470:

ADDITIONAL ARCTIC OCS REQUIREMENTS

What additional information must I submit with my APD for Arctic OCS exploratory drilling operations? (§ 250.470)

BSEE proposes to add § 250.470, which would require operators to provide Arctic OCS-specific information with their APDs for exploratory drilling. The proposed informational requirements in the new section would be necessary to inform BSEE's evaluation of APDs for Arctic OCS exploratory drilling operations.

Paragraph (a), Fitness for Service

This provision would require operators to submit a detailed description of the environmental, meteorologic and oceanic conditions expected at the well site(s); how their equipment, materials, and drilling unit will be prepared for service in the conditions, and how the drilling unit will be in compliance with the requirements of § 250.417. For this proposed requirement, BSEE would expect the operator to identify the specific drilling units proposed for use during its operations, verify that the identified equipment and materials are fit for service, and that the drilling units conform to the fitness for service requirements of § 250.417. It is important that operators provide this level of detail to ensure that the equipment, materials, and drilling units proposed for use in Arctic

OCS exploratory drilling are capable of performing their respective tasks under Arctic OCS Conditions.

The information requested by this proposed section for drilling units is not in addition to the requirements of § 250.417, but rather is designed to make clear that, to satisfy the fitness requirements of § 250.417, operators would need to provide details regarding Alaska OCS Conditions. Further, BSEE does not currently have an existing provision for drilling equipment and materials that requires the same level of detail found in § 250.417 for drilling units.

BSEE's current regulations concerning fitness for other types of equipment and material are more general and performance-based than the requirements proposed in this rule for Arctic OCS operations. Additionally, since SCCE is a new suite of equipment and materials proposed by this rule, there are no existing fitness for service regulations covering these items. Therefore, the information required under proposed paragraph (a) for equipment and materials would be new.

Paragraph (b), Well-specific Transition Operations

This provision would require operators to submit "[a] detailed description of all operations necessary in Arctic OCS Conditions to transition the rig from being under way to conducting drilling operations and from ending drilling operations to being under way, as well as any anticipated repair and maintenance plans for the drilling unit and equipment." BSEE does not intend for this provision to require operators to resubmit any information already submitted to BOEM. Rather, BSEE would expect operators to have a fairly detailed plan when they submit their APD, including information such as the identity of equipment and vessels to be used, dates of planned operations, and a

description of how the equipment and vessels would be designed for and be capable of performing in Arctic OCS Conditions. For transition operations, BSEE would need details about all of the activities necessary to begin and end drilling operations, and to move from one drilling location to the next. Examples of the types of activities BSEE would expect an operator to describe include, but are not limited to: recovering the subsea equipment, including the marine riser and the lower marine riser package; recovering the BOP; recovering the auxiliary sub-sea controls and template; laying down the drill pipe and securing the drill pipe and marine riser; securing the drilling equipment; transferring the fluids for transport or disposal; securing ancillary equipment like the draw works and lines; refueling or transferring fuel; offloading waste; recovering the ROVs; picking up the oil spill prevention booms and equipment; and offloading the drilling crew.

Finally, BSEE would require information regarding any specific repair and maintenance plans for the drilling unit and equipment associated with commencement or completion of drilling operations. All of the required information would facilitate BSEE's understanding of an operator's program and ensure that the operator complies with lease stipulations, EP conditions, and other permitting requirements.

Paragraph (c), Well-specific Drilling Objectives and Contingency Plans

This provision would require operators to submit "[w]ell-specific drilling objectives, timelines, and updated contingency plans for temporary abandonment of the well." Whereas the corresponding provisions of the proposed IOP and current EP regulations (*e.g.*, § 550.211) relate more broadly to the objectives and timelines of the overall proposed exploratory drilling activities, this provision would require an operator to

provide "well-specific" information at the APD stage. This information would include the operator's detailed schedule of the following:

1. When they will spud the particular well (*i.e.*, begin drilling operations at the well site) identified in the APD;

2. How long will it take to drill the well;

3. Anticipated depths and geologic targets, with timelines;

4. When the operator expects to set and cement each string of casing;

5. When and how the operator would log the well;

6. The operator's plans to test the well;

7. When and how the operator would abandon the well, including specifically addressing plans for how to move the rig off location and how the operator would meet the requirements of proposed § 250.402(c);

8. A description of what equipment and vessels would be involved in the process of temporarily abandoning the well due to ice; and

9. An explanation of how these elements would be integrated into the operator's overall program.

Examples of the information the operator would be required to provide include, but are not limited to: the location(s) to which the rig would be moved; the operator's plans for safely securing the well prior to leaving the drill site; how temporary abandonment would affect the operator's seasonal drilling plans, including its remaining schedule of operations at each well; and how crew logistics, such as transportation to and from a drilling rig, would be affected.

It should be noted that the contingency plans proposed in this section of the rule are different from the contingency plans required for "icing or ice-loading" under existing

§ 250.417(c)(2). That phrase refers to ice build-up on the vessel or equipment itself, whereas the focus of proposed § 250.470(c) is on ice management, meaning the contingency plans for response to the presence of ice in the water, such as temporary abandonment of a well until the ice in the water passes, or management through some other technique. For oil and gas exploration, ice management is an Arctic OCS-specific issue that does not occur elsewhere on the OCS. However, icing and ice-loading can occur during operations on other parts of the OCS, outside of the Arctic.

Paragraph (d), Weather and Ice Forecasting and Management

This performance-based provision would require an operator to submit: a detailed description of its "weather and ice forecasting capability for all phases of the drilling operation, including how [it] will ensure continuous awareness of potential weather and ice hazards at, and during transition between, wells;" its "plans for managing ice hazards and responding to weather events;" and verification that it has the capabilities described in its EP. Verification could be provided, for example, by providing appropriate supporting documents (*e.g.*, contracts) for the forecasting and ice management capabilities.

BSEE needs to know the details for how the operator would implement the policies and/or plans for managing ice and weather events, identified to BOEM, for the drilling operations proposed in the APD. It is anticipated that the operator may not know the specific details about each vessel and piece of equipment that contributes to its weather and ice forecasting and management capabilities when describing those capabilities to BOEM, in connection with the IOP and the EP. Also, more detailed plans for managing ice hazards or weather events may be necessary and appropriate given the timing and

location of the specific well at issue than may have been available or appropriate for the IOP and EP. Further, BSEE anticipates that weather and ice monitoring and forecasting capabilities may evolve between the approval of the EP and the submittal of the APD, which could yield better data, especially when operations commence. Therefore, this proposed provision would require the operator to submit the specific detailed information to BSEE in connection with its APD and also to describe, in more detail and closer in time to commencement of drilling, how it would implement its weather and ice forecasting and management plan.

BSEE would expect operators to identify the specific weather and ice forecasting equipment and vessels that they intend to utilize, including the name of the contractor that would deliver satellite imagery, if applicable. Such information should also be specific to the location and operations associated with the well that is the subject of the particular APD.

Finally, BSEE would require that an operator's weather and ice management capabilities would be uninterrupted for the entirety of their operations while on the Arctic OCS. This provision proposes that there would be no gap in weather and ice monitoring activities, including during transit between wells. This is to ensure that, upon arrival at a new well location, there are no unexpected weather or ice hazards that would interfere with drilling operations at the new location, or would pose a threat to the safety or integrity of the drilling equipment or personnel. The purpose of this proposed requirement is to ensure that hazards to drilling operations are avoided or managed before they could become a danger or an interruption to operations.

Paragraph (e), Relief Rig Plan

Paragraph (e) would require operators to provide, with their APD, information concerning how they would comply with the relief rig requirements of proposed § 250.472. See the discussion of that provision for an explanation of the nature of, and need for, those requirements.

Paragraph (f), SCCE Capabilities

Paragraph (f) would require operators who propose to use a MODU to conduct exploratory drilling operations on the Arctic OCS to provide with their APD information concerning their required SCCE capabilities when they are drilling below or working below the surface casing, including a statement that the operator owns, or has a contract with a provider for, SCCE capable of controlling and/or containing its identified WCD. Ensuring that an operator would be capable of responding to a loss of well control is one of the key goals of this proposed rule. In other parts of the OCS (*e.g.*, the Gulf of Mexico), there are several well-established contractors readily available to operators and extensive operations and infrastructure within the region from which resources could be drawn to respond to an event. However, resources are limited in the Arctic region due to the remote location and relative lack of infrastructure and operations. Therefore, operators proposing to conduct exploratory drilling on the Arctic OCS must demonstrate that they would have access to, and be capable of promptly deploying, adequate SCCE. Operators must also describe how they would inspect, test, and maintain this equipment in order to ensure that it would remain fully functional and ready for use. These proposed requirements would help assure BSEE that operators conducting exploratory drilling under Arctic OCS Conditions are capable of: (1) regaining control after a loss of

well control event or (2) containing escaping fluids from a loss of well control event. The information requirements of paragraph (f) would include:

1. A detailed description of the operator's or its contractor's SCCE capabilities. The description must include operating assumptions and limitations and information demonstrating that the operator would have access to and the ability to deploy such equipment necessary to regain control of the well. This description would allow BSEE to verify the location and availability of this equipment for compliance with proposed § 250.471.

2. An inventory of the equipment, supplies, and services the operator owns or has a contract for locally and regionally, including the identification of each supplier. This information is important because BSEE would need to verify the existence, condition, and location of the equipment that the operator describes in its plans.

3. Where SCCE capabilities are obtained through contracting, proof of contracts or membership agreements with cooperatives, service providers, or other contractors, including information demonstrating the availability of the personnel and/or equipment on a 24-hour per day basis during operations below the surface casing. In an effort to minimize the environmental and social footprint of, and economic impediments to, Arctic OCS operations, BSEE is encouraging operators to share resources, especially standby equipment. This provision would facilitate the identification of those assets, and would allow BSEE to verify the contractual basis of any agreements necessary to provide the services required.

4. A description of the procedures for inspecting, testing, and maintaining SCCE. SCCE is intended to be standby equipment. However, BSEE needs to be assured that the

equipment would remain able to function if it were needed. This provision would allow BSEE to verify that the operator, or contractor, has procedures in place for inspecting, testing, and maintaining the equipment so that it would be ready for use, if necessary. Operators are already required under existing regulations at § 250.1916 to retain the information requested by this proposed new paragraph. The proposed provision would require that operators who propose to conduct exploratory drilling on the Arctic OCS submit this information in conjunction with their APD.

5. A description of the operator's plan to ensure that personnel are trained to deploy and operate the equipment and that they would maintain ongoing proficiency in source control operations. Standby crews who are not used regularly to perform their dedicated functions would not develop the necessary skills unless they are properly trained, and would not maintain those skills unless that training is reinforced by practice. It is therefore imperative that the operator demonstrate that these personnel have a plan for acquiring, and the ability to maintain, the proficiency necessary to respond when called upon. This requirement would allow BSEE to review those plans and verify that the proficiencies have been acquired and would be maintained.

Paragraph (g), API RP 2N, Third Edition

Paragraph (g) would require that operators explain how they utilized API RP 2N, Third Edition, in planning their Arctic OCS exploratory drilling operations. The API is updating this RP by adopting the entirety of ISO standard "Petroleum and natural gas industries Arctic offshore structures," First Edition (2010) (ISO 19906). Since the requirements of this proposed rule are limited only to exploratory drilling operations, operators would not be expected to provide an explanation of how they utilized the entire

API RP 2N, Third Edition. This performance-based requirement would be limited to those portions of that document that are specifically relevant for exploratory drilling operations. BSEE proposes to exclude the following sections of API RP 2N, Third Edition, from incorporation:

1. sections 6.6.3 through 6.6.4;
2. the foundation recommendations in section 8.4;
3. section 9.6;
4. the recommendations for permanently moored systems in section 9.7;
5. the seismic analysis recommendations for pile foundations in section 9.10;
6. section 12;
7. section 13.2.1;
8. sections 13.8.1.1, 13.8.2.1, 13.8.2.2, 13.8.2.4 through 13.8.2.7;
9. sections 13.9.1, 13.9.2, 13.9.4 through 13.9.8;
10. sections 14 through 16; and
11. section 18.

Sections 6.6.3 and 6.6.4 would be excluded because they address different types of conditions for ice gouging and/or scouring than are anticipated to occur during the Alaska Arctic open water drilling season. The foundation criteria of section 8.4, the piled structure criteria of section 9.6, the requirements for permanently moored systems in section 9.7, and the requirements for seismic analysis of pile foundations in section 9.10 would be excluded because this rule only applies to MODUs drilling on a temporary basis, as opposed to the more permanent types of structures addressed in those provisions. Similarly, section 12 would be excluded because it applies only to fixed

concrete structures and is outside the scope of this proposed rule. Section 13.2.1 (design philosophy for floating structures) would be excluded because similar ice forecasting and management issues are covered separately under proposed § 250.470(d). Sections 13.8.1.1, 13.8.2.1, 13.8.2.2, 13.8.2.4 through 13.8.2.7, 13.9.1, 13.9.2, and 13.9.4 through 13.9.5, would be excluded because they cover vessel design and procedures requirements under USCG jurisdiction. Sections 13.9.6 (inspection and maintenance), 13.9.7 (operations and planning for safety of personnel, the environment, and equipment), and 13.9.8 (ice management plans) would be excluded because similar requirements are addressed by other provisions of this proposed rule. Section 14 would be excluded because it relates only to subsea production systems while this proposed rule applies to MODUs engaged in exploratory drilling activities and because this rule proposes a different set of requirements for BOPs from that set forth in section 14.3.3. Section 15 (topsides design and operation) would be excluded because it does not generally apply to MODUs, and any parts that could be utilized for MODUs fall under USCG jurisdiction. Section 16 (ice engineering topics) would be excluded because it applies to structures that will remain in the ice and does not apply to MODUs. Section 18 (escape, evacuation and rescue) would be excluded because its provisions are already addressed under existing 30 CFR Part 250 Subpart S and USCG rules.

BSEE recognizes that, when applied to MODUs, many of the structural criteria of API RP 2N, Third Edition, are regulated by the USCG and may be covered by Class requirements for marine structures. Classification is a determination made by private organizations (in accordance with USCG requirements) that a vessel has been constructed and maintained in compliance with industry standards to be fit for a particular service, in

this case Ice Class 3. Therefore, application of API RP 2N, Third Edition, for the purposes of this proposed rule would be limited to the non-marine structural components of MODUs. For example, Class requirements do not cover the derrick, plumbing, pipes, tubing, and pumps that are all also structural components of a MODU and that fall under BSEE jurisdiction. If incorporated in the final rule, BSEE would expect operators to comply with API RP 2N, Third Edition, for MODU components within BSEE jurisdiction. BSEE and the USCG have signed a Memorandum of Agreement for MODUs outlining the allocation of responsibilities between the agencies for fixed offshore facilities available at: www.bsee.gov/BSEE-Newsroom/Publications-Library/Interagency-Agreements/; click on the link for 2013 BSEE/USCG MOA: OCS-08.

BSEE specifically requests comment on proposed draft API RP 2N, Third Edition, and on the extent to which BSEE should incorporate its provisions when finalized into the regulations. As an alternative to incorporation of API RP 2N, Third Edition, BSEE is considering incorporation by reference of ISO 19906, the ISO Arctic standard on which API RP 2N, Third Edition, is based. If BSEE incorporates the ISO standard in lieu of the API standard, the final rule would exclude the sections of the ISO standard corresponding to the excluded sections of API RP 2N previously discussed. BSEE requests comments on whether and to what extent BSEE should incorporate ISO 19906 in lieu of proposed draft API RP 2N, Third Edition.

BSEE is also considering incorporating the ISO standard "Petroleum and natural gas industries – Site-specific assessment of mobile offshore units – Part 1: Jack-ups," First Edition (2012) (ISO 19905-1), into the final rule, with application limited only to Arctic

OCS exploratory drilling operations. ISO 19905-1 may be better suited than API RP 2N (or ISO 19906) to guide structural components for jack-up rigs. The API RP 2N (or ISO 19906) and ISO 19905-1 documents together would provide the most comprehensive structural requirements for the use of a jack-up rig in Arctic conditions. BSEE requests comments on the extent to which ISO 19905-1 should be incorporated into these proposed Arctic regulations.[7]

What are the requirements for Arctic OCS source control and containment? (§ 250.471)

BSEE proposes to require operators to continue to adhere to all applicable source control and containment requirements in the current regulations, and to meet additional SCCE requirements for Arctic OCS exploratory drilling operations. BSEE is required to ensure that offshore oil and gas operations are conducted safely and in a manner that protects the environment from harm as a result of those operations. As stated earlier, the waters and surrounding environment of the Arctic region support a wide variety of marine mammals and other wildlife, including several Endangered Species Act (ESA) listed species and designated critical habitat. Furthermore, U.S. obligations under Article 4 of the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, require that, for "areas of special ecological significance," each party "shall establish a minimum level of pre-positioned oil spill combating equipment, commensurate with the risk involved, and programs for its use[.]"

[7] Copies of ISO 19905-1 may be purchased from ISO on its website (at http://www.iso.org/iso/home/store/catalogue_ics.htm) or from commercial vendors. Copies of the ISO standards referred to in this proposed rule may also be viewed, upon request, at BSEE's Herndon, VA, office (at the address previously) indicated or at BSEE's Regional Offices for Alaska, the Pacific, and the Gulf of Mexico.

The Arctic contains areas of ecological significance to the Nation as a whole, and especially to Alaska Native communities.

Therefore, it is imperative that any loss of well control during oil and gas exploratory drilling operations is corrected and/or contained as quickly as possible to minimize the impact of oil pollution on the environment. To accomplish this task, it would be necessary to have all equipment needed to cap and/or contain the release of fluids readily available in the event of a loss of well control during Arctic OCS exploratory drilling operations. Further, operations on the Arctic OCS are distinct from operations on any other part of the OCS. The logistics and the transit times necessary to respond to a well control event on the Arctic OCS, coupled with the difficulties associated with oil spill response operations in Arctic OCS Conditions, require the operator to plan for and be prepared for contingencies that would be more straightforward to address in other theaters. There is limited ability in the Arctic region to summon additional source control and containment resources. Accordingly, operators working there must plan for response redundancies and planning complexities not required elsewhere.

The proposed requirements would apply to all exploratory drilling operations using a MODU on the Arctic OCS, regardless of the BOP configuration employed by the operation. These provisions are designed to ensure that each operator using a MODU would have access to, and could promptly and effectively deploy and operate, surface and subsea control and containment equipment in the event of a loss of well control. In particular, BSEE would require each operator to have the ability, in the event of a loss of well control, to cap the well and to capture, contain, and process or properly dispose of any fluids escaping from the well. All SCCE must be mobilized (*i.e.*, begin transit) to the

well immediately upon a loss of well control. The rule would specifically provide that the SCCE is only necessary when drilling below or working below the surface casing.

This new section would require compliance with the following source control and containment requirements for all exploration wells drilled on the Arctic OCS.

Paragraph (a), Drilling Below or Working Below the Surface Casing

Paragraph (a) would require that the operator, when using a MODU to drill below or work below the surface casing, have access to a capping stack positioned to arrive at the well within 24 hours after a loss of well control, and a cap and flow system and a containment dome positioned to arrive at the well within 7 days after a loss of well control. These technologies are important because they have, either individually or in sequence, been proven to be effective at reacquiring control of wells and/or containing the flow of hydrocarbons after primary well control measures (such as well design and a BOP) have failed to prevent a well control event. The SCCE is intended to provide redundancy in the event of a loss of well control. Some of the well control events for which this equipment would be deployed could require a relief well to permanently plug and abandon the uncontrolled well.

On the Arctic OCS, the exploratory drilling operator would not be considered to have the required SCCE unless it is secured in advance and has the capability of arriving at the well within the required timeframes. In the event that a BOP or other prevention mechanism fails to stop the flow of fluids, capping stacks would be necessary to provide an additional means to control flow from the well, where a stub or connector is accessible. Capping stacks are the preferred immediate first level redundancy, with the goal of controlling the well and stopping the discharge of fluids, and should be positioned

so that they will arrive at the well within 24 hours after a loss of well control. Incidents in which the connectors or tubulars are not damaged would lend themselves to the use of a capping stack.

If the tubulars are damaged and the pressure cannot be managed with the capping stack, the remainder of the cap and flow system must be used as a secondary response. It must be positioned so that it will arrive at the well within 7 days of a loss of well control and designed to capture the WCD identified in the EP. If the cap and flow system were unable to stop or control the flow of fluids to the environment, or the well system were damaged to the point that the capping stack could not make a connection, the containment dome system, which also must be positioned to arrive at the well within 7 days of a loss of well control, would need to be used to capture the hydrocarbons flowing to the environment, as a tertiary response. Thus, the SCCE system, as a whole, would provide a level of redundancy and flexibility necessary to operate on the Arctic OCS.

BSEE specifically requests comment on all of the proposed timeframes for arrival of SCCE at the well in the event of a loss of well control. In particular, BSEE invites comments on whether such timeframes are appropriate, from a logistical and feasibility perspective, to address a loss of well control. BSEE also requests comment on whether the cap and flow system and containment dome could be available and positioned to arrive at the well within 3 days, or some shorter amount of time than 7 days.

Paragraph(b), Stump Test

Paragraph (b) would require monthly stump tests of dry-stored capping stacks, and stump tests prior to installation for pre-positioned capping stacks. The presence of the equipment alone is not sufficient to ensure the reliability of the system. Testing of the

equipment must be done on a regular basis. This proposed rule would impose a requirement that any capping stack that is dry stored must be stump tested (function and pressure tested to prescribed minimum and maximum pressures on the deck in a stand or stump where it could be visually observed) monthly. The rule would also require that pre-positioned capping stacks be tested prior to each installation on a well to assure BSEE that no damage was done during the prior deployment or transit.

Paragraph (c), Reevaluating SCCE for Well Design Changes

Paragraph (c) would require a reevaluation of the SCCE capabilities if the well design changes because some well design changes may impact the WCD rate. If the operator proposes a change to a well design that impacts the WCD rate, the operator must provide the new WCD rate through an Application for Permit to Modify (APM), as required by § 250.465(a). The operator must then verify that the SCCE would either be modified to address the new rate or that the previously proposed system would be adequate to handle the new WCD to demonstrate ongoing compliance with the SCCE capability requirements previously addressed.

Paragraph (d), SCCE Tests or Exercises

Paragraph (d) would require the operator to conduct tests or exercises of the SCCE when directed by the Regional Supervisor. Similar to the requirement that equipment be tested periodically, BSEE has concluded that there is a need to ensure that personnel are prepared and that they, and the SCCE, would be capable of performing as intended. Therefore, BSEE proposes to require that operators conduct tests and exercises (including deployment), at the direction of the Regional Supervisor, to verify the functionality of the systems and the training of the personnel.

Paragraphs (e) and (f), SCCE Records Maintenance

Paragraph (e) would require the operator to maintain records pertaining to testing, inspection, and maintenance of the SCCE for at least 10 years, and make them available to BSEE upon request. This information would facilitate a review of the effectiveness of the operator's inspection and maintenance procedures and provide a basis of review for performance during any drill, test, or necessary deployment. Because of the limited drilling season on the Arctic OCS, the 10-year record retention requirement is necessary in order to ensure the availability of a meaningful longitudinal data set. Additionally, the limited drilling season means that this equipment would be infrequently used and might be stored for long periods of time between seasons. Thus, a 10-year record retention requirement is necessary to ensure enough cumulative data is gathered to assess overall equipment performance and trends.

Paragraph (f) would require the operator to maintain records pertaining to use of the SCCE during testing, training, and deployment activities for at least 3 years and to make them available to BSEE upon request. The use of the equipment during testing and training activities and actual operations must be recorded, along with any deficiencies or failures. These records would allow BSEE to address any issues arising during the usage and to document any trends or time-dependent problems that would develop over the record retention period. In the event that the equipment is used in a well control incident, the records are necessary to document the effectiveness of the response and functioning of the equipment.

Paragraphs (g) and (h), Mobilizing and Deploying SCCE

Paragraph (g) would require operators to mobilize (*i.e.*, initiate transit of) SCCE to a well immediately upon a loss of well control and deploy (*i.e.*, position for use) and use SCCE. Paragraph (h) would give the Regional Supervisor the authority to require the operator to deploy and use SCCE independent of an operator's determination of whether or not to deploy and use SCCE. Requiring immediate mobilization would prevent operators from delaying the transit of SCCE equipment to the well in the hope that other source control or containment methods will be successful. This provision would ensure that all SCCE is available and ready for use. Also, this provision is being proposed to clarify the Regional Supervisor's discretion to require the deployment and use of SCCE in the event of a loss of well control or for purposes of SCCE training and exercises. The Regional Supervisor's authority is specifically addressed here to allow the Regional Supervisor to act in a timely manner should a loss of well control occur.

What are the relief rig requirements for the Arctic OCS? (§ 250.472)

As demonstrated by past loss of well control events around the globe, in some cases it may be necessary to drill a relief well to permanently plug an uncontrolled well. The SCCE is an interim solution designed to minimize environmental harm from well control events, but the ultimate solution may need to be accomplished by a relief well. Arctic OCS exploratory drilling operations would take place in a region that has little or no infrastructure, that is subject to variable and sometimes extreme weather, and in which transportation systems could be interrupted for significant periods of time. Also, Arctic OCS exploratory drilling operations are complicated by the fact that they currently take place only during the "open water season," or that period of time in the summer and early fall when ice hazards can be physically managed and there is no continuous ice layer over

the water. Outside of that window, ice encroachment may complicate or prevent drilling and transit operations, and for that reason it is critical to ensure that drilling (including relief well drilling if necessary) and other operations affected by sea ice are concluded before ice encroachment. Furthermore, if there is a loss of well control during the drilling season, it is also important to ensure that, if a relief rig is necessary to stop the uncontrolled flow of oil, the relief rig is available and able to complete all necessary operations in as short a time as possible. Thus, while conducting exploratory drilling operations below the surface casing on the Arctic OCS, it is essential to position or designate a relief rig in a location that would enable it to transit to the well site, drill a relief well, plug the original well, plug the relief well, and demobilize from the site prior to expected seasonal ice encroachment. This would require the cessation of exploratory drilling or other work below the surface casing far enough in advance of the expected return of seasonal ice to allow for completion and abandonment of a relief well.

The proposed rule would establish a 45-day maximum limit on the time necessary to complete relief well operations. This timeframe is necessary to acknowledge the relative lack of infrastructure and active operations from which response resources could be drawn in the region, as well as the grave threats of a prolonged loss of well control to the Arctic environment. If an operator were to use a pure standby rig (*i.e.*, a rig that is not otherwise operating in the Arctic), Dutch Harbor is the nearest deep-water port where the standby rig could be stationed. BSEE estimates that it would take 20 days to get the rig ready and to transit from the nearest U.S. deep-water port (Dutch Harbor) to the farthest well location (Beaufort leases), 20 days to drill the relief well, and 5 days to plug the uncontrolled well, test it, and move off the well site. If, on the other hand, an operator

were to use a second drilling rig to serve as a relief rig for another drilling rig, the time required to complete relief well operations could be much shorter than 45 days because the second rig would already be operating in the Arctic OCS and would require shorter transit time than a standby relief rig staged in Dutch Harbor or at another location.

BSEE considered imposing prescriptive geographic limitations on the staging of relief rigs in proximity to exploratory drilling operations, but chose instead to propose a performance-based requirement to provide operators the flexibility to choose how best to comply with the relief rig obligations. Operators would need to demonstrate their ability to complete relief well operations within a maximum of 45 days, subject to BSEE's review in the APD process (*see* proposed § 250.470(e)). The proposed rule would also authorize the Regional Supervisor to direct an operator to begin drilling the relief well.

The relief rig could be stored in harbor, staged idle offshore, or actively working, as long as it would be capable of physically and contractually meeting the proposed 45-day maximum timeframe. However, any relief rig must be a separate and distinct rig from the primary drilling rig to account for the possibility that the primary rig could be destroyed or incapacitated during the loss of well control incident.

Of course, an operator's actual timeframe to drill a relief well would be based on consideration of the distance between anticipated exploratory drilling sites, the availability of adequate staging locations for relief rigs, the length and complexity of rig transit under Arctic OCS Conditions, and the time necessary to complete the requisite operations once on-site. Thus, BSEE specifically requests comment on whether the maximum time limit for deploying a relief rig and drilling a relief well should be more or less than 45 days.

The proposed rule expressly provides that the relief rig would only be necessary when drilling below or working below the surface casing (*i.e.*, where contact with hydrocarbons capable of flowing into the well could occur). BSEE recognizes that the proposed relief rig requirement may effectively limit the number of days an operator can work below the surface casing at the end of each drilling season. The actual length of this limitation would depend on the operator's plans for staging and deploying a relief rig and could extend up to 45 days before the end of the drilling season (*e.g.*, the projected return of sea ice). During this period, however, an operator may be able to conduct a number of different operations at the well site that do not involve work below the surface casing**.** Such work can significantly advance an exploratory drilling project and can help an operator prepare to conduct work below the surface casing during the following drilling season. BSEE requests comments on the different types of work (above the surface casing) that could be performed during the time period set aside for a relief well to be drilled, if needed, as well as the economic benefits and costs associated with this work.

While a relief well is the most reliable, and in some circumstances the only available, solution to kill and permanently plug an out-of-control well, there could be circumstances in which control could be regained without intervention by a relief well. Accordingly, BSEE also requests comment on whether there are any alternative technological methods, in addition to a relief well, to kill and permanently plug an out-of-control well before seasonal ice encroachment. Comments should include, where possible, specific technological solutions, descriptions of the conditions under which an alternative method

could successfully kill and permanently plug a well, and any research that would demonstrate the effectiveness of such an alternative.

For example, some stakeholders have proposed that the use of subsea shut-in devices (SIDs) located on the seafloor could help significantly reduce the risk of a release of hydrocarbons if the BOP system fails. SID equipment is specifically designed to act as a redundant safety system and ensure the safe and timely shut-in of a well in an emergency. Although BSEE believes that timely access to a relief rig is the surest way to permanently resolve a WCD event in the Arctic, the use of SIDs could reduce the risk of a release of hydrocarbons and potentially justify giving operators more flexibility in the staging of relief rigs.

Thus, BSEE requests comments on alternative compliance approaches and specifically requests data on the performance of SIDs, including operational issues (such as timeframes needed to activate such alternatives). In particular, BSEE requests comments on appropriate staging requirements for a relief rig assuming that an SID has been installed at the exploration well. Comments are also requested on the need for an operator to have an in-season relief well drilling capability if an SID is used at a location that is not subject to ice scouring.

BSEE also requests information or data comparing the relative safety and environmental risk levels, as well as the costs, of the equipment and procedures that would be required under the proposed regulations to the risks and costs of equipment and procedures under any suggested alternative approach.

In any case, BSEE's existing regulations allow operators the flexibility to develop new technological solutions and to seek approval for the use of those solutions to fulfill

their regulatory obligations. Under 30 CFR § 250.141, operators may request approval to use alternative equipment or procedures for any specified requirement, provided that the operator is able to demonstrate an equivalent or improved level of safety and environmental protection. This performance-based provision is a key part of BSEE's regulatory program, which is a combination of prescriptive and performance-based requirements, because it gives operators the ability to comply with regulatory requirements through a variety of methods if they can make the necessary demonstrations to BSEE. It also serves to encourage the development and utilization of alternative technologies to satisfy the specific requirements contained in the regulations.

What must I do to protect health, safety, property, and the environment while operating on the Arctic OCS? (§ 250.473)

BSEE proposes to add a new § 250.473 that would require performance-based measures in addition to those listed in § 250.107 to protect health, safety, property, and the environment during exploratory drilling operations on the Arctic OCS.

Paragraph (a) would require that all equipment and materials proposed for use in exploratory drilling operations on the Arctic OCS be rated or de-rated for service under conditions that could be reasonably expected during operations. Arctic OCS Conditions place strains on operating equipment not experienced elsewhere on the OCS. This necessitates that such equipment be rated or de-rated for use under such conditions in order to ensure that it could operate safely and effectively.[8] For example, cranes must be designed to withstand ice loads that can be anticipated to build up during Arctic OCS operations and operational limitations of components under extreme cold temperatures

[8] It is likely that Arctic Conditions could have an adverse impact on the performance of some equipment and result in this equipment being operated below the rated maximum performance level.

(*e.g.*, reduced tensile strength) must be understood and accounted for. Also, capping and containment equipment must be specifically designed to withstand the demands of regional conditions. The Arctic Council made similar recommendations for equipment and materials in its 2009 report on Arctic oil and gas operations (*see* Arctic Council – Arctic Offshore Oil and Gas Guidelines (2009)).

BSEE's existing regulation at § 250.418(f) requires that operators include in their APD "evidence that the drilling equipment, BOP systems and components, diverter systems, and other associated equipment and materials are suitable for operating" in areas subject to subfreezing conditions, while proposed § 250.473(a) would establish a requirement for use of appropriately rated or de-rated equipment and materials. Operators may ensure that proposed materials and equipment are rated or de-rated appropriately by referencing manufacturer specifications and would not need to obtain equipment or material rating by an independent third-party rating entity. Upon finalization of this provision, failure to use appropriately rated or de-rated equipment and materials could subject an operator or its contractor to enforcement action by BSEE.

Paragraph (b) would require operators to employ measures to address human factors associated with weather conditions that can be reasonably expected during Arctic OCS exploratory drilling operations. This provision is designed to ensure safety of the workforce and protection of the environment by requiring operators to account for weather conditions that might impact decision-making and personnel health and safety. On the Arctic OCS, the workforce would encounter harsh environmental conditions, including extreme cold, snow, ice, and freezing spray, which could cause, among other medical conditions, frost bite and breathing difficulties that can impair

performance and judgment. Measures that operators would be required to use to address human factors include, but are not limited to, provision of proper attire and equipment, construction of protected work spaces, and management of shifts.

What are the auditing requirements for my SEMS program? (§ 250.1920)

In 2013, BSEE published an update to Subpart S, which established additional measures operators must take to manage safety and to protect the environment during their OCS operations. The requirements under this subpart are designed to be performance-based to allow operators to tailor their management systems to their particular operations, including operations on the Arctic OCS. For example, a hazards analysis for a facility on the Arctic OCS would account for the types of hazards expected on the Arctic OCS, like ice floe. Similarly, Job Safety Analyses must account for Arctic OCS Conditions, such as ice, extreme cold, snow, and freezing spray. BSEE would not consider an operator's SEMS to be effective under § 250.1924 if it were not specifically tailored to the Arctic OCS Conditions reasonably anticipated at the facility in question.

Similarly, existing §§ 250.1914 and 250.1924 give BSEE broad authority to require that operators on the Arctic OCS provide BSEE with information such as the names of contractors and the specific scope of their duties and timelines for performance in support of an operator's drilling activities. For example, if an operator planned to use a contractor for waste disposal, cementing, or logging, BSEE would expect the operator to inform BSEE of this intent, along with any other operations contracted out, and the names of those contractors. Because the existing performance-based SEMS regulations are adequate to cover Arctic OCS operations when properly implemented, no major modifications are needed to Subpart S for the Arctic OCS. However, additional

provisions are necessary to bolster auditing expectations for Arctic OCS exploratory drilling operations.

This rule proposes to increase the audit frequency and facility coverage for intermittent Arctic OCS exploratory drilling operations. While operators are generally required to conduct their SEMS audit every 3 years after their initial audit, BSEE believes it would be critical to perform a SEMS audit of Arctic OCS exploratory drilling operations and all related infrastructure each year in which drilling is conducted, because of the particularly challenging conditions and high-risk nature of those activities. This Arctic OCS audit would require operators to ensure that all safety systems are in place and functional prior to commencing or resuming, activities for a new drilling season, as well as to conduct the offshore portion of the audit while drilling is under way. An operator conducting Arctic OCS exploratory drilling operations may not combine its Arctic OCS facility audit(s) with audits of its non-Arctic OCS facilities to satisfy the facility sampling requirements incorporated into Subpart S.

As with SEMS audits in other OCS regions, there would be an onshore and offshore portion. However, for Arctic OCS exploratory drilling operations, an operator would be required to submit a separate audit report and corrective action plan (CAP) for the onshore and offshore portions of its audit. To provide an opportunity for BSEE to review the onshore portion of the audit report and CAP prior to commencement of drilling, they must be submitted no later than March 1st in any year in which drilling is planned. The operator would also be required to start and close the offshore portion of the audit within 30 days after first spudding of the well or entry into an existing wellbore for any purpose from that facility. The operator would be required to submit the audit report and CAP

from the offshore portion of the audit within 30 days of the close of that portion of the audit. This is designed to enable the auditors to analyze offshore operations while they are actively underway, and to ensure that BSEE is made aware of any issues surrounding those operations as soon as practicable. To ensure that any critical problems that are revealed by the audit are addressed, BSEE would be able to order all or part of the operations to be shut down, if necessary.

Oil Spill Response

Part 254 – Oil-Spill Response Requirements for Facilities Located Seaward of the Coast Line

Definitions. (§ 254.6)

This section would include a revised definition of *Adverse weather conditions* and add new definitions of *Arctic OCS* and *Ice intervention practices*. These definitions are necessary because they are important in establishing the standard for response capability based on environmental conditions unique to the Arctic region.

Adverse weather conditions – The current regulations contain a definition for the term "adverse weather conditions," which means conditions under which spill response activities are difficult but nevertheless required to proceed. The concept reflects the fact that operators are required to pursue oil spill response activities in all but the most severe conditions where such activities would become particularly dangerous or impossible. This term is important, especially for Arctic OCS exploratory drilling, because it describes the difficult conditions in which a response is still expected to occur and excludes conditions that present too much of a risk to responder health and safety for a response to proceed. Operators are expected to consider the delays and challenges

resulting from adverse weather when developing their OSRP. The resulting response strategies should reflect the right type and amount of resources necessary to effectively respond to a WCD scenario that would include adverse weather conditions on the Arctic OCS and should factor in anticipated disruptions or delays that could result from operational periods where conditions would exceed safe operating parameters and prohibit spill response activities from occurring.

BSEE proposes to add more specific weather terms, *i.e.*, extreme cold, freezing spray, snow, and extended periods of low light, to this definition for clarity regarding the weather conditions in which we expect lessees or operators to be able to conduct response operations on the Arctic OCS. The addition of this terminology is intended to ensure that operators procure equipment that could respond in these difficult, but feasible, conditions and utilize spill response technology that would be suitable for weather conditions encountered within the Arctic region. With this outcome in mind, we considered establishing quantitative descriptions specific to ice and temperature. For example, to ensure that identified response capabilities would be able to operate in certain levels of ice, one option considered was to include 30 percent ice coverage as a condition under which BSEE would expect response activities to proceed. However, BSEE concluded that using qualitative terms would allow the maximum flexibility in determining the appropriate performance-based approach necessary to respond quickly and effectively to an operator's WCD to the maximum extent practicable, under conditions reasonably anticipated during operations. This could encourage research and development, including Federally funded projects, to continue to enhance the standard response capabilities.

Arctic OCS -- For an explanation of the definition of Arctic OCS, see the definitions discussion at the beginning of the Section-by-Section analysis.

Ice intervention practices – This new term describes the equipment, vessels, and procedures used to increase the effectiveness of response techniques and equipment in encountering and mitigating the impacts of spilled oil when sea ice is present. After oil spreads over a broad area, the ability to recover, burn, or disperse oil depends on the rate at which the oil can be identified, tracked, and encountered (*i.e.*, encounter rate). When ice is present during efforts to mitigate the impacts of spilled oil, the ice could act as a barrier that would obscure, limit, or prevent access to the oil, and could also interfere with the proper operation of response equipment. Accordingly, ice presents unique and significant challenges, and it is important that operators develop equipment and strategies to respond to such challenges.

The other purpose of this definition is to specifically differentiate terminology used to describe tactics for responding to oil in water containing sea ice from terminology used to describe resources and tactics employed to manage ice during drilling operations. An operator's OSRP must address ice intervention practices specifically intended to increase the effectiveness of an oil spill response operation. This term relates to a new requirement for the "emergency response action plan" section of OSRPs for Arctic OCS facilities, proposed at § 254.80(a). Please refer to the discussion related to that provision for further explanation of the need for, and importance of, this item in operators' OSRPs.

Spill response plans for facilities located in Alaska State waters seaward of the coast line in the Chukchi and Beaufort Seas. (§ 254.55)

The OSRPs for facilities in State waters seaward of the coast line must be submitted to BSEE for approval and must comply with the requirements in Subpart D. The proposed provision would require the OSRP for any facility conducting exploratory drilling from a MODU in Alaska State waters seaward of the coast line within the Beaufort or Chukchi Seas to address the additional requirements set forth in the new proposed Subpart E, discussed in detail later. BSEE has determined that the considerations justifying the various provisions of proposed Subpart E would also apply to these operations.

Some requirements in Subpart E address planning and exercises related to the use of source control and subsea containment equipment such as capping stacks or containment domes. Operators would be required to have access to and use this equipment when conducting exploratory drilling from a MODU on the Arctic OCS, pursuant to proposed regulations in Part 250, but those conducting similar activities in State waters are not currently subject to the same requirements. The State of Alaska, however, has State requirements for source control. As such, a response plan covering operations in State waters of the Beaufort or Chukchi Seas must address how the source control procedures selected to comply with State law would be integrated into the planning, training, and exercise requirements of proposed §§ 254.70(a), 254.90(a), and 254.90(c).

Subpart E – Oil-Spill Response Requirements for Facilities Located on the Arctic OCS

Purpose (§ 254.65)

This rulemaking proposes to create a new Subpart E, in order to provide owners and operators of exploratory drilling facilities on the Arctic OCS with additional requirements

for oil spill response preparedness that would address the challenging conditions that operators would likely encounter on the Arctic OCS. The main purpose for the proposed language is to establish specific planning requirements that would maximize oil spill response technology application and emphasize a complete response system that would be designed to address the environmental and logistical challenges inherent to spill response activities in the Arctic OCS region. This would include planning for a WCD that occurs late in the drilling season.

BSEE chose to create a new subpart instead of incorporating the specific requirements throughout its existing regulatory provisions. This is similar to the approach that was taken to address requirements specific to State waters in Subpart D. It is important to note that Subpart E would add requirements for operations on the Arctic OCS and that all other applicable requirements in Part 254 would still apply. BSEE chose to reserve §§ 254.66 through 254.69; §§ 254.71 through 254.79; and §§ 254.81 through 254.89 within proposed Subpart E.

What are the additional requirements for facilities conducting exploratory drilling from a MODU on the Arctic OCS? (§ 254.70)

BSEE proposes to add § 254.70 that would address general oil spill response planning requirements for operators using MODUs to conduct exploratory drilling on the Arctic OCS. These requirements include incorporating the support mechanisms for capping stacks, cap and flow systems, containment domes, and other similar subsea and surface devices and equipment and vessels, required by proposed § 250.471, into oil spill response incident action planning. They would also require operators to address the influence of adverse weather conditions on responders' health and safety during spill

response activities. Finally, they would require operators, prior to resuming seasonal exploratory drilling activities, to review their OSRPs, and modify as necessary, to address changes to the location or status of response resources or the arrangements for supporting logistical infrastructure arising from extended periods of time without drilling.

Paragraph (a) would address the need to integrate emergency well control and containment equipment and personnel into spill response planning to ensure coordination during a loss of well control event. Regaining control over the well and containing discharged liquids is the first line of response to a well control incident, following failure of primary prevention devices. Accordingly, it is critical that those efforts be integrated and coordinated with the spill response efforts designed to remove or treat oil in the water that would proceed at the same time. Although requirements for well control and containment equipment operability and safe use fall under regulations based on the OCSLA, its integration with the oil spill response activities is imperative. Active information sharing through coordinated planning efforts will ensure that oil spill response and source control and containment operations would be synergistic and mutually understood when called upon to function together in the event of a loss of well control.

Paragraph (b) would address responder health and safety by ensuring that the correct resources would be available to protect responders from hazards specific to the Arctic region. It is critical for operators to address in their OSRPs the influence of adverse weather conditions, including extreme cold, snow, ice, freezing spray, and extended periods of low light, on spill response personnel. These conditions could impair human decision-making and physical abilities and create risks to personnel, operations, and the

environment. Accordingly, this provision would require that operators describe in their OSRPs the steps they would take to address those factors to ensure that their planned oil spill response activities could be conducted in a safe and effective manner. The types of considerations that BSEE would expect to be addressed include, but are not limited to, proper attire and equipment, protected work spaces, and proper shift management. The objective would be to ensure that the equipment needed to protect human health against adverse weather conditions would be available immediately when a response is required.

Paragraph (c) would address specific challenges to maintaining preparedness to respond to a spill when drilling is seasonal and there are extended periods without any risk of an oil discharge. One of the substantial challenges presented by operations on the Arctic OCS is the seasonal drilling limitation resulting from the prevalence of sea ice on portions of the waters overlying the Arctic OCS during all but the summer and early fall months. This limitation precludes active exploratory drilling operations from MODUs on the OCS for up to 8 months of the year, potentially leaving associated response equipment, materials, and personnel idle for extended periods of time or leading to their use in other regions of the OCS or elsewhere.

It is important for operators to ensure that their spill response capabilities would not deteriorate or lose their effectiveness due to such extended periods of inactivity and to ensure that they would remain capable and adequate to conduct a quick and effective response to an oil spill during active exploratory drilling operations. While BSEE encourages owners or operators with approved OSRPs to commit to a continuous exercise, training, and equipment maintenance regime that inherently builds response skills over time, the Arctic OCS seasonal drilling limitations challenge the practicality of

continuously maintaining these capabilities while there is not a risk of a discharge. To address this challenge, BSEE would require that owners or operators, in connection with seasonal exploratory drilling activities, review and submit modifications to their OSRP as appropriate, to demonstrate that all required resources would be ready, before oil is handled, stored, or transported, to respond to a spill to the maximum extent practicable. This OSRP review and update would address resource allocations, changes, and, most importantly, the re-establishment of resource readiness well before there is a risk of discharge. BSEE would review and approve proposed OSRPs for resource maintenance during extended periods without drilling activity through established OSRP approval, modification, revision, and update processes described in §§ 254.2, 254.30, and 254.53, and the proposed update described in this section.

What additional information must I include in the "Emergency response action plan" section for facilities conducting exploratory drilling from a MODU on the Arctic OCS? (§ 254.80)

BSEE also proposes to create a new § 254.80 that would focus on additional information requirements for the emergency response action plan section of an OSRP when the operator proposes to conduct exploratory drilling operations from a MODU on the Arctic OCS. The additional requirements would include specifics regarding ice intervention practices, staging considerations, and tracking abilities.

Sea ice could reduce the effectiveness of spill response techniques by limiting access to spilled oil and decreasing oil encounter rates. Therefore, in paragraph (a), BSEE would require Arctic OCS exploratory drilling operators to describe their ice intervention practices and how they would improve the effectiveness of spill response equipment and

response strategies in the presence of sea ice. Increasing oil encounter rates when sea ice is present maximizes efficiency in removing or mitigating the adverse impacts from oil in the water as quickly and effectively as possible. The necessary practices and equipment would work to mitigate the impacts of ice on response operations and extend the period in which oil spill response activities could occur. They would also ensure that appropriate ice management vessels would be included when determining equipment requirements that would enhance all response options and strategies included in the plan.

Operators must ensure that they would have the capability to initiate a rapid response to the site of an offshore oil spill, as well as to sustain and, when necessary, repair response equipment on-site without having to rely on shore-based assets that could become inaccessible due to weather conditions or other factors. Due to the remote locations where Arctic OCS exploratory drilling operations would occur, and the limited infrastructure and logistical support capabilities in the coastal communities, operators would need to consider strategic staging locations and support mechanisms for effectively deploying and resupplying oil spill response resources. For the Arctic OCS, initial response capabilities, in many instances, would need to be based offshore to effectively meet the requirements in Part 254. Pursuant to paragraph (b)(1), operators would be required to describe how they would maintain assets in close proximity to exploratory drilling operations to ensure that adequate response times would be achievable and response operations would be sustainable. The weather conditions that are common to the area (*e.g.*, dense fog, high sea states) often preclude access to the area by small vessels and aircraft for days at a time. The ability to mount and maintain an expeditious response once a release occurs would be negatively impacted if response

assets or supporting materials were significantly delayed from arriving at the spill site due to inclement weather. Accordingly, operators must establish an offshore resource management system to ensure that vessels and equipment would be readily available, along with sufficient personnel and berthing, to carry out response activities.

The limited support and response capabilities and capacities that exist in most Alaska coastal communities mandate that operators provide for nearly all aspects of an oil spill response on the Arctic OCS. Paragraph (b)(2) would require operators to identify how they intend to ensure an immediate and uninterrupted flow of supplies, response equipment, personnel, and shore-based support services to sustain the response activities until terminated by the Unified Command.[9] The components of the logistics supply chain include, but are not limited to: personnel and equipment transport services; airfields and types of aircraft that can be supported; capabilities to mobilize supplies (*e.g.*, response equipment, fuel, food, fresh water) and personnel to the response sites; onshore staging areas, storage areas that may be used *en route* to staging areas, and camp facilities to support response personnel conducting offshore, nearshore and shoreline response; and management of recovered fluid and contaminated debris and response materials (*e.g.*, oiled sorbents), as well as waste streams generated at offshore and on-shore support facilities (*e.g.*, sewage, food, and medical). Operators must also plan to implement mitigation measures to reduce the impacts that surged personnel, equipment, and increased activity would have on communities where staging areas, camp facilities, and waste handling sites are established.

[9] The Unified Command is a response construct under the incident command system headed by Federal authorities and coordinated with the State and other parties.

In paragraph (c), BSEE proposes to require operators to describe how they would maintain an effective tracking and management system that is able to locate in real time all response equipment and personnel conducting response activities, or transiting to and from the response site(s), and to maintain a current picture of resources entering and exiting staging areas and the operational status of those resources. This system would be essential to provide the Unified Command with information necessary to ensure that sufficient personnel and equipment would be available to meet the response needs.

Part 254 requires operators to describe all equipment they plan to use to respond quickly and effectively to an oil spill to the maximum extent practicable. For oil spill response planning, BSEE would not consider it adequate preparedness for an operator to assume that the Federal On-Scene Coordinator would call upon assets under the control of other entities during a response. As previously mentioned in the Part 550 discussion, it is important to note that an effective and immediate removal or mitigation of a discharge must be achieved to the maximum extent practicable by private sector efforts.

What are the additional requirements for exercises of your response personnel and equipment for facilities conducting exploratory drilling from a MODU on the Arctic OCS? (§ 254.90)

BSEE proposes to create a new § 254.90 that would require operators to incorporate the additional requirements contained within proposed §§ 254.70 and 254.80 into their oil spill response training and exercise activities; would require operators to provide notice of the commencement of covered operations; and would clarify the authority of the Regional Supervisor to conduct exercises, prior to and during exploratory drilling operations, to test response preparedness. These requirements are all essential to

ensuring and verifying an operator's readiness to conduct response activities on the Arctic OCS.

As described previously with respect to proposed § 254.70(a), it is essential that the relevant support mechanisms (personnel, materials, and vessels) for capping stacks, cap and flow systems, and containment domes, and other similar subsea and surface devices and equipment and vessels, be integrated and coordinated with the spill response planning and activities that would take place alongside them, and that those arrangements are suitable for deployment on the Arctic OCS. Accordingly, proposed § 254.90(a) would require that operators incorporate the required personnel and equipment into spill-response training and exercises to ensure the necessary and appropriate level of coordination between source control and subsea containment activities and spill response activities.

Similarly, to ensure that these training and exercise activities would accurately reflect and test the full scope of response capabilities necessary for Arctic OCS operations, proposed § 254.90(a) would also require that operators incorporate other proposed response plan features from proposed §§ 254.70 and 254.80 into those activities. As outlined in proposed § 254.90(c), the Regional Supervisor may direct operators to deploy response resources, as part of announced or unannounced exercises, to verify an operator's preparedness for responding to a spill on the Arctic OCS. These exercises might include the deployment of capping stacks, cap and flow systems, containment domes, or other supporting equipment in order to test their integration and coordination with other oil spill response activities. However, SCCE is not required to be deployed

under the annual and triennial equipment deployment requirements outlined in § 254.42(b)(2).

Finally, proposed § 254.90(b) would require operators planning to conduct exploratory drilling from a MODU on the Arctic OCS to provide 60-days' notice before handling, storing, or transporting oil to give BSEE adequate opportunity to verify that the operator's personnel and equipment are in compliance with existing regulations.

D. Arctic Exploratory Drilling Process Flowchart

BOEM – BSEE Arctic OCS Exploration Planning, Permitting, and Operations Flowchart

❖ -- Indicates proposed new provisions; all existing applicable regulations continue to apply unless otherwise noted; all citations are to Title 30 of the CFR

Planning, Permitting, and Preparation

❖ **Integrated Operations Plan** [550.204]

Exploration Plan
- 550.211-228 requirements
- ❖ Arctic Suitability [550.220(c)(1)]
- ❖ Ice and Weather [550.220(c)(2)]
- ❖ SCCE, Relief Rig [550.220(c)(3)-(4)]
- ❖ Resource Sharing [550.220(c)(5)]

EP Approval

OSRP Submitted for Approval
- In compliance with Part 254;
- ❖ Including new Subpart E

OSRP Approval

SEMS in place [Part 250, Subpart S]

SEMS Onshore Audit
- ❖ (Report and CAP by March 1) [250.1920(b)-(e)]

- ❖ Notification of RS (60 days before drilling) [254.90(b)]

APD Submission
- 250.410-418 requirements
- ❖ Arctic Suitability [250.470(a)]
- ❖ Transition Operations [250.470(b)]
- ❖ Objectives, Timelines, and Contingency Plans [250.470(c)]
- ❖ Weather and Ice [250.470(d)]
- ❖ Relief rig plans [250.470(e)]
- ❖ SCCE Capabilities [250.470(f)]
- ❖ API RP2N description [250.470(g)]

APD Approval

Drilling Operations

Commence Exploration Drilling
- ❖ Start with well cellar (or equivalent) if ice scour [250.402]

Drilling or Working Below Surface Casing
- ❖ SCCE Staged [250.471(a)]
- ❖ Relief Rig Staged [250.472]

Drilling Operations Requirements:
- ***Compliance with all generally applicable law and regs***
- ❖ Properly rated/de-rated equipment and materials [250.473(a)]
- ❖ Address human factors in weather conditions [250.473(b)]
- ❖ Offshore Portion of SEMS Audit with report and CAP [250.1920(b)-(e)]
- ❖ Capture of Mud and Cuttings (as required) [250.300(b)]
- ❖ Real-time operational monitoring [250.452]
- ❖ Weather and Ice tracking and forecasting [250.470(d)]
- ❖ Reporting of ice, ice management, and kicks [250.188(c)]
- ❖ Monthly Capping Stack stump tests [250.471(b)]
- ❖ 7-day BOP pressure testing [250.447(b)]
- ❖ Personnel training [250.470(f)(5); 254.70(a); 254.90(a)]
- ❖ Drills and exercises (SCCE and OSR) [250.471(d) & (g); 254.90(a) & (c)]
- ❖ Protection of well and equipment upon TA [250.402(c)]

Post-Drilling

Conclusion of on-site operations (including abandonment)
- ❖ Transition per APD [250.470(b)]

Offseason
- ❖ Spill response readiness and maintenance [254.70(c)]
- ❖ Maintenance of data and records [250.452(b); 250.471(e) & (f)]

V. Conclusion

Overall, the proposed rule would further the Nation's energy goals in prudently exploring frontier areas, such as those in the Arctic OCS, by establishing operating models and requirements tailored specifically to the extreme, unpredictable, and rapidly changing conditions that exist in the Arctic region. The proposed regulations reflect the need for earlier and more comprehensive planning of operations, particularly with respect to emergency response and safety systems. The proposed Arctic OCS exploratory drilling rule would institutionalize a proactive approach to safety. Vulnerabilities would be identified in the planning phase and corrections would be made to reduce the likelihood of an incident occurring. The proposed rule would also ensure that those plans would be carried forward and executed in a manner that would ensure safety and environmental protection under the challenges presented to operations by Arctic OCS Conditions.

Finally, the proposed rule would integrate emergency response, comprehensive operational and safety planning, contractor oversight, and upfront mutual aid agreements. The proposed combination of prescriptive and performance-based requirements would precipitate robust consideration of how safe exploration of the Arctic region is to be achieved.

VI. Procedural Matters

A. Regulatory Planning and Review (E.O. 12866 and E.O. 13563)

Changes to Federal regulations must undergo several types of economic analyses. First, E.O. 12866 and E.O. 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select a regulatory approach that maximizes net benefits (accounting for the potential economic,

environmental, public health, and safety effects). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Under E.O. 12866, an agency must determine whether a regulatory action is significant and, thus, subject to the requirements of the E.O. and OMB review. Section 3(f) of E.O. 12866 defines a "significant regulatory action" as any rule that:

1. Has an annual effect on the economy of $100 million or more, or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities (also referred to as "economically significant");

2. Creates serious inconsistency or otherwise interferes with an action taken or planned by another agency;

3. Materially alters the budgetary impacts of entitlement grants, user fees, loan programs, or the rights and obligations of recipients thereof; or

4. Raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

B. E.O. 12866

E.O. 12866 provides that OMB's Office of Information and Regulatory Affairs will review all significant rules. Pursuant to the procedures established to implement § 6 of E.O. 12866, OMB has determined that this proposed rule is significant because the estimated annual costs or benefits exceed $100 million in at least one year of the analysis period. The following discussion summarizes the economic analysis; a more detailed Initial RIA can be found in the regulatory docket for this proposed rule at

www.regulations.gov (in the Search box, use BSEE-2013-0011). BOEM and BSEE request comments on the assumptions used in the Initial RIA and on other possible alternatives to consider, including alternatives to the specific provisions contained in the proposed rule.

1. Need for Regulation

This proposed rule seeks to enhance requirements for safe, effective, and responsible Arctic OCS oil and gas activities. Although there is currently a comprehensive OCS oil and gas regulatory program, DOI engagement with partners and stakeholders, including environmental groups and Alaska Natives, reveals the need for new and enhanced regulatory measures for Arctic OCS exploratory drilling. The current rulemaking focuses primarily on reasonably foreseeable Arctic OCS exploratory drilling activities that use MODUs, and on related operations during the Arctic open-water drilling season (generally late June to early November). After the proposed requirements for exploratory drilling are finalized and applied to those activities, DOI will be able to assess whether it should apply similar requirements to development drilling.

This proposed rule builds on input received from partners and stakeholders, key components of Shell's 2012 Arctic exploratory drilling program, and the additional measures BOEM and BSEE required Shell to perform under existing regulatory authorities. After considering the input received and our direct experience from Shell's 2012 Arctic operations, BOEM and BSEE have concluded that additional exploratory drilling regulations would enhance and clarify existing regulations and would be appropriate as a part of the Arctic OCS oil and gas regulatory framework.

The proposed rule would further the Nation's interest in exploring frontier areas, such as those in the Arctic OCS region, safely and responsibly, and would establish specific operating models and requirements that account for both the extreme, changing conditions that exist on the Arctic OCS and Alaska Natives' cultural traditions and need to access subsistence resources. The proposed regulations would require comprehensive planning of operations, especially for emergency response and safety systems. The proposed rule would seek to institutionalize a proactive approach to offshore safety. A goal of the proposed rule is to identify potential vulnerabilities early in the planning process so that corrections can be made to decrease the potential of an incident occurring. The requirements in the proposed rule also are designed to ensure that those plans would be executed in a safe and environmentally protective manner despite the challenges the Arctic OCS presents.

In particular, this proposed rule would address several important objectives, including ensuring that operators:

i. Design and conduct exploration programs in a manner suitable for Arctic OCS conditions;

ii. Develop an IOP that would address all phases of their proposed Arctic OCS exploration program and submit the IOP to BOEM at least 90 days in advance of filing an EP;

iii. Have access to and the ability to promptly deploy SCCE while drilling below or working below the surface casing;

iv. Have access to a separate relief rig located so that it could timely drill a relief well, in the event of a loss of well control, under the conditions expected at the site;

v. Have the capability to predict, track, report, and respond to ice conditions and adverse weather events;

vi. Effectively manage and oversee contractors; and

vii. Develop and implement OSRPs designed and executed in a manner suitable for the unique Arctic OCS operating environment and have the necessary equipment, training, and personnel for oil spill response on the Arctic OCS.

The following provisions of the proposed rule are expected to result in additional costs, above the baseline, to the affected industry:

i. Additional Incident reporting requirements;

ii. Additional pollution prevention requirements;

iii. Additional requirements for securing wells;

iv. Additional BOP pressure testing requirements;

v. Real-time monitoring requirements;

vi. Additional information requirements for APDs;

vii. Incorporation of proposed draft API RP 2N, Third Edition;

viii. Additional SCCE requirements;

ix. Relief rig requirements;

x. Additional auditing requirements;

xi. Real-time location tracking requirements;

xii. IOP requirements;

xiii. Additional requirements for EPs; and

xiv. Industry familiarization with the rule.

2. Alternatives

As explained in the Initial RIA, BOEM and BSEE have considered three alternatives for dealing with the safety and environmental concerns that exploratory drilling activities on the Arctic OCS have raised:

i. Promulgate the rule changes described in this proposed rule; or

ii. Promulgate the rule changes described in the proposed rule without including the 7-day BOP pressure testing requirement for Arctic OCS exploratory drilling operations (in § 250.447 of the proposed rule); or

iii. Take no regulatory action and continue to rely on existing oil and gas regulations, industry standards, and operator prudence.

BSEE has decided not to issue a proposed rule without the 7-day BOP testing requirement. The additional testing requirement would help ensure that BOPs deployed in the Arctic OCS function properly and reduce the risk of blowouts. BSEE has determined that the total cost to industry of including this requirement is approximately $135.1 million over the 10-year analysis period (with 7 percent discounting). The cost summary tables below present the total costs of the proposed rule with and without the additional BOP pressure testing requirements.

BOEM and BSEE also have decided to move forward with this proposed rule, in lieu of taking no regulatory action, because relying on the regulatory status quo would not address the safety and environmental concerns in the Arctic region that partners and stakeholders have raised, and thus would not achieve the objectives of this proposed rule.

In addition, the proposed rule would confer additional protections on the environment and Alaska Native cultural activities.

3. Economic Analysis

BOEM and BSEE evaluated the potential cost impacts of the proposed rule against the baseline. The analysis reflects only the activities and capital investments the proposed rule requires that represent a change from the baseline. The analysis covers 10 years (2015 through 2024) to ensure it captures important benefits and costs that could result from the proposed rule.[10] When summarizing the costs and benefits, we present the estimated annual effects and the 10-year discounted totals using discount rates of 3 and 7 percent, per OMB Circular A-4, "Regulatory Analysis." BOEM and BSEE welcome comments on this analysis, including comments on the assumptions, the baseline, the methods used, and on the potential sources of data or information on the costs and potential benefits of this proposed rule.

i. Assumptions

The baseline refers to existing regulatory requirements, industry standards, and operator prudence. According to OMB's Circular A-4, the baseline should be "the best assessment of the way the world would look absent the proposed action." Thus, the economic analysis excluded activities or capital investments that existing regulations

[10] As explained in the Initial RIA, we used a 10-year period for this analysis because of the uncertainty associated with predicting industry's activities and the advancement of technical capabilities. For example, the costs associated with a particular new technology may decrease as the technology is adopted more broadly over time. In other cases, an existing technology may be replaced by a lower-cost alternative. Extrapolating results beyond this 10-year time frame would produce more ambiguous results and, therefore, be disadvantageous in determining actual costs and benefits likely to result from this proposed rule.

require as well as impacts resulting from the incorporation of industry standards with which industry voluntarily complies. The baseline also includes only costs associated with requirements that BOEM or BSEE have previously routinely imposed in other regions under their existing regulatory authorities, but does not include the costs described as follows:

a. Relief Rig Capital Costs: The proposed rule requires Arctic OCS operators to have access to a separate relief rig located such that it could timely drill a relief well if a loss of well control were to occur and drilling a relief well becomes necessary. Although a relief rig was required by DOI during Shell's 2012 Arctic operations, and although BOEM and BSEE anticipate that we would exercise our existing authorities to require a relief rig for any future exploratory drilling on the Arctic OCS, we chose not to include the capital costs associated with staging a relief rig that may not be conducting exploratory drilling (*i.e.*, a standby rig) in the baseline.[11] Instead, we conservatively chose to include such costs as part of the costs of the rule, in the detailed economic analysis contained in the Initial RIA. These costs are estimated at $276 million per year per standby rig.

Based on EPs and other information, however, BOEM and BSEE believe that, in the future operators would likely designate a second operating rig to be a relief rig (instead of staging a dedicated standby relief rig) because, over time, the increased presence of multiple operating rigs on the Arctic OCS would make it easier for one operating rig to

[11] Although Shell included a relief rig requirement in its Beaufort Sea and Chukchi Sea EPs for the 2012 season (which BOEM approved and which were subsequently incorporated in Shell's APDs, as approved by BSEE), BOEM would have required that a relief rig be included in Shell's EPs under the authority currently found in 30 CFR 550.213 and 550.220 in any event.

be designated as a relief rig for another operating rig. Nonetheless, because an operator may choose to deploy a dedicated standby relief rig, the economic analysis conservatively includes the estimated costs for a standby rig for 2015 and 2016.

In addition, costs associated with documenting a relief rig plan are not included in the baseline for the analysis and are included in the economic analysis.

b. Relief Rig Activity Costs: The proposed rule would establish a 45-day maximum limit on the time necessary to complete the relief well operations activities. This provision effectively would require the cessation of exploratory drilling or other work below the surface casing far enough in advance of the expected return of seasonal ice to allow for completion and abandonment of a relief well. BOEM and BSEE approved plans for Shell's 2012 Arctic operations required drilling operations in zones that can support the flow of liquid hydrocarbons in measurable quantities into the well to be concluded 38 days before November 1, based on satellite imagery showing the 5-year historical average of earliest encroachment of sea ice over the applicant's drill site and the estimated time required to drill a relief well. Thus, the baseline for this analysis includes this 38-day requirement from 2012. Accordingly, the potential costs of the proposed 45-day maximum timeframe include only the costs of the additional 7 days (45 days minus 38 days) not included in the baseline, during which drilling or work below the surface casing could not take place.

We recognize that the requirement to have the capability to drill a relief well to permanently kill an out-of-control well may lead to a reduction in the number of days during which operators can perform work below the surface casing during the drilling

season. There will be costs and benefits associated with this requirement. Those costs (including "opportunity costs") may also include costs resulting from a reduction in the number of wells that can be drilled during the term of the lease under which the operator is conducting exploratory drilling operations.

The Initial RIA for the proposed rule discusses the challenges associated with estimating opportunity costs. Because the Arctic OCS is a frontier area for drilling operations, there are very few data points that would provide the basis for accurate estimates. Any attempt to calculate opportunity costs would have to take into account the significant number of uncertainties associated with exploratory drilling, the nature of the economic benefits sought to be achieved by such operations (e.g. booking reserves), and a variety of other factors. These factors will often depend upon the decisions an operator makes on how to conduct drilling operations during each drilling season and the nature of the opportunities for other productive use of the assets.

Data available to BOEM and BSEE indicate that the estimated daily operating cost of a drilling rig located in the Arctic OCS is approximately $2 million. This estimate includes all of the costs associated with operating a rig (e.g., including the costs of the rig crew). This figure is based upon an analysis of the daily costs of rigs currently operating in the Gulf of Mexico, adjusted significantly upward to account for the harsh operating conditions in the Arctic. The actual operating costs for a rig operating in the Arctic OCS will likely vary greatly from season to season. Industry data presented in the course of this rulemaking indicated that the fixed costs of drilling in the Arctic for one season are

$1.2 billion, which, amortized over an entire 100-day season of drilling, is equivalent to $12 million per day in sunk costs.[12]

Any calculation of opportunity costs should include an estimated return on investment. Such a calculation could be based on the OMB Circular A-4 estimate of the average before-tax rate of return to private capital in the U.S. economy (7 percent) or could be based on the industry stated average return on capital (10 percent).

Any calculation of opportunity costs should also estimate the number of days per season that the operator could not conduct work below the surface casing. While the proposed rule would impose a maximum period of 45-days for a relief rig to deploy and complete a relief well and, thus, a maximum of 45-days during which work below the surface casing would not occur, the actual number of days during which an operator would not be able to conduct drilling or other work below the surface casing is subject to a number of variables. As discussed previously, we estimate that it would take 20 days to prepare and transport a rig from the nearest U.S. deep water port (Dutch Harbor) to the farther well location (Beaufort leases), 20 days to drill the relief well, and five days to plug the uncontrolled well, test it, and move off the well site. Further, the actual time needed for completing a relief well operation would vary depending on a number of factors. For example, the estimated actual time needed would depend on how an operator proposes to stage a relief rig; *e.g.*, if it chooses to deploy a dedicated standby relief rig or to designate a second operating rig as a relief rig. In the latter case, a relief rig operating

[12] During a meeting conducted with OMB pursuant to E.O. 12866, Shell stated that its total costs for a 100-day drilling season were $1.5 billion and that 80% of those costs ($1.2 billion) were "sunk." Dividing these costs by 100 (the assumed length of the drilling season) yields an estimate of $12 million per day. These costs have not been independently validated by BOEM and BSEE, and it is not known if the industry figure provided already included the expected return on capital.

in the near vicinity of the primary rig, as proposed by Shell in its revised Exploration Plan for 2015,[13] may be able to reach the site of a blowout and complete a relief well in as little as 25 days, assuming no transit time for the rig.

Moreover, other work, which will likely have significant economic benefit, may continue under the proposed rule during the period that work below the surface casing is not allowed, providing economic benefits from other activities that could be conducted during this period (for example, in 2012, Shell drilled top holes during the period it was not allowed to drill into hydrocarbon bearing zones). If the alternative work was of similar economic value, there would be no opportunity cost. However, it is likely the alternative work would have a lesser value than the forgone work, and thus only partially offset the opportunity cost.

The Initial RIA assumes that, during 10 years of exploratory drilling operations, primary rigs (up to four per season during 2018-2024) will conduct a total of 32 drilling campaigns. During those drilling campaigns, costs associated with each rig will be highly variable. Current estimates of these costs range from $ 2 million to $12 million per day. The breadth of this range, combined with the number of significant additional variables (number of days affected; rate of return), makes it difficult to estimate a range of annual opportunity costs. Additional data related to operating costs, forecasted positioning of relief rigs, the economic effect of operating two rigs in theater during the same season, and other significant variables may provide the basis for meaningful estimates of annual opportunity costs associated with the requirement that a relief rig be able to deploy and complete a relief well within 45 days of the end of the drilling season.

[13] http://www.boem.gov/EP-PUBLIC-VERSION/

We encourage comments on such estimated costs, as well as benefits, with supporting data, including data on the uses to which a primary rig could be put during the time it is not working below the surface casing. Any such estimates should, if appropriate, include estimated return on capital that would be forgone as a result of these requirements.

c. BOP Pressure Testing Requirements: We do not include the 7-day BOP pressure-testing requirements in the baseline for the analysis because, although Shell agreed to this requirement as a condition of its 2012 operations, Shell ultimately did not conduct these BOP pressure tests during that operating season. Thus, we conservatively include the costs associated with the increased BOP pressure testing requirements in the analysis of the costs for Alternative 1.

Based on BOEM's and BSEE's knowledge of operators engaged in, or likely to be engaged in, Arctic OCS exploration activities, we also made several assumptions about the number of operators, rigs, and wells operating on the Arctic OCS over the 10-year analysis period. We based all assumptions on our experience with recent and expected industry practices for operators on the Arctic OCS, including information submitted to BOEM and BSEE by lessees and operators and other available information related to planned or potential industry exploratory activities for the analysis period. Exhibit 1 presents these assumptions. We seek comments on the reasonableness of these assumptions.

Exhibit 1. Assumptions about the Affected Population of Operators and Drilling Operations

Inputs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operators	1	1	1	3	3	3	3	3	3	3
Primary rigs	2	2	2	4	4	4	4	4	4	4
Standby relief rig[1]	1	1	0	0	0	0	0	0	0	0
Exploratory wells drilled each year	2	4	4	4	4	6	6	6	6	6
Applications for permit to drill	2	4	4	4	4	6	6	6	6	6
Exploration plans	1	2	2	2	2	2	2	2	2	2
Integrated operations plans	2	2	2	2	2	2	2	2	2	2
Oil spill response plans	2	2	2	2	2	2	2	2	2	2

[1] Standby relief rigs are rigs that are not conducting exploratory drilling and are assumed to incur different costs than relief rigs that are conducting exploratory drilling (*i.e.*, "primary rigs").

Other data inputs and assumptions common to many of the calculations include the following:

d. SCCE and Resource Sharing: The proposed rule requires operators to have access to, and the ability to promptly deploy, SCCE while conducting Arctic OCS exploratory drilling or work below the surface casing. In the cost analysis, we assume that the operator conducting exploratory drilling beginning in 2015 already owns the required SCCE. We also assume that the operator with two primary rigs in 2017 will use one set of SCCE to satisfy the SCCE requirements for both of its rigs. Finally, we assume that, of the two operators entering in 2018, one will purchase the SCCE and the other will select the least-cost means to comply with the proposed rule and enter into resource sharing with an operator who has already purchased the SCCE.

Because the industry does not currently engage in resource sharing on the Arctic OCS, BOEM and BSEE have no details on how the process would be conducted and

whether or to what degree, for example, an operator would charge for access to equipment. The SCCE resource-sharing assumptions represent the most likely scenario based on BSEE's knowledge of the industry. BOEM and BSEE also considered a low-cost scenario and a high-cost scenario that vary the assumptions for resource sharing and purchase of SCCE by operators. The Initial RIA for the proposed rule discusses the costs associated with these scenarios.

e. Daily Rig Operating Costs: Based on BSEE estimates and cost estimation methodologies from the BOEM Case Study, we assume that rigs on the Arctic OCS have a daily operating cost of $2 million. For the purposes of the analysis, we assume that the daily rig operating costs remain constant over the 10-year analysis period. We also assume that the drilling season on the Arctic OCS lasts 138 days.[14]

f. BSEE Burden to Review Paperwork Submissions: For each paperwork submission, we assume that for every hour that industry devotes to compile and submit information, BSEE will need one half hour to review the submission.[15]

g. Wage Rates and Loaded Wage Factors: For this analysis, we obtained median industry wage rates from the Bureau of Labor Statistics May 2012 Occupational Employment Statistics for the industry labor categories. We also obtained wage rates for BOEM and BSEE personnel from the Office of Personnel Management 2012 General Schedule for the government labor categories. To account for employee benefits, we multiplied the hourly wage rates by appropriate loaded wage factors to generate hourly

[14] We assume a 138-day drilling season for all purposes other than the prior discussion of opportunity costs, which uses a 100-day drilling season as assumed in the industry presentation to OMB. *See* n.13.
[15] The submissions to BOEM under Part 550 of the proposed rule do not follow this standard review estimate because these submissions would require a more time-intensive review by several employees.

compensation rates. The Initial RIA for the proposed rule includes details on wage rates and loaded wage factors used in the analysis.

4. Costs

The analysis presented in the Initial RIA describes the potential costs of the proposed rule compared to the baseline. Exhibit 2, which follows, summarizes these proposed requirements and their associated costs to industry and government. Please see the Initial RIA for details on the exact assumptions and calculations.

i. Additional Incident Reporting Requirements: Operators would be required to provide an immediate oral report to the BSEE onsite inspector, if one is present, or to the Regional Supervisor of any sea ice movement or condition that has the potential to affect operations or trigger ice management activities, the start and termination of such activities, and any "kicks" or operational issues that are unexpected and could result in the loss of well control. Operators also would be required to submit a follow-up written report regarding any ice management activities undertaken within 24 hours, following completion of those activities.

ii. Pollution Prevention Requirements: Operators would be required to capture all petroleum-based mud and cuttings from operations that use petroleum-based mud. In addition, these subparagraphs clarify the Regional Supervisor's discretionary authority to require operators to capture all water-based muds and associated cuttings from Arctic OCS exploratory drilling operations after completion of the hole for the conductor casing to prevent their discharge into the marine environment.

iii. Additional Requirements for Securing Wells: Operators that move a drilling rig off a well prior to completion or permanent abandonment would be required to ensure that any equipment left on, near, or in a well bore that has penetrated below the surface casing is positioned to protect the well head and prevent or minimize the likelihood of compromising the down-hole integrity of the well or well plug effectiveness. Additionally, in areas of ice scour, operators would be required to use a well cellar or an equivalent means of minimizing the risk of damage to the wellhead.

iv. Additional BOP Pressure Testing Requirements: Operators conducting Arctic OCS exploratory drilling operations would be required to begin testing the BOP system before midnight on the seventh day following the conclusion of the previous test. This proposed requirement would represent an increased testing frequency (compared to the current requirement for testing every 14 days).

v. Real-time Monitoring Requirements: These proposed new real-time monitoring requirements for Arctic OCS exploratory drilling operations include real-time data gathering and monitoring capability for data on the BOP control system, the fluid handling systems on the rig, and the well's downhole conditions. They also include onshore data transmission, monitoring, storage, and notification and availability of data to BSEE.

vi. Additional Information Requirements for APDs: This provision would require operators to submit Arctic OCS-specific information with APDs for Arctic OCS exploratory drilling. This includes a detailed description of how the drilling unit, equipment, and materials will be prepared for service in Arctic OCS Conditions.

Operators would be required to submit a detailed description of all operations necessary in Arctic OCS Conditions to transition the rig from being underway to commencing drilling operations and from concluding drilling operations to being underway, as well as any anticipated repair and maintenance plans for the drilling unit and equipment. Operators would also be required to submit well-specific drilling objectives, timelines, and updated contingency plans for temporary abandonment of the well. Finally, operators would be required to submit information on weather and ice forecasting capability for all phases of drilling operations.

vii. Incorporation of Proposed Draft API RP 2N, Third Edition: This provision would require operators to submit a detailed description of how the relevant aspects of proposed draft API RP 2N, Third Edition, "Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions," are addressed in the planning of exploratory drilling operations. API RP 2N is a voluntary consensus standard that addresses the unique Arctic conditions that affect the planning, design, and construction of systems used in Arctic and sub-Arctic environments.

viii. Additional SCCE Requirements: There are several proposed SCCE requirements, including equipment, stump testing, well design change information requirements, test and exercise, records maintenance, and documentation. Because the industry does not currently engage in resource sharing on the Arctic OCS, BOEM and BSEE do not have details on how that process would be conducted and whether, for example, an operator would charge for access to equipment. The SCCE resource sharing assumptions represent the most likely scenario based on BSEE's knowledge of the industry. BSEE also considered a low cost scenario and a high cost scenario for these

proposed requirements that vary the assumptions for resource sharing and purchase of SCCE by operators. *See* Section 4.e of the Initial RIA for details on the costs associated with these scenarios.

ix. Relief Rig Requirements: When conducting exploratory drilling or working below the surface casing, operators on the Arctic OCS would be required to have a relief rig, different from their primary drilling rig, staged in a location such that it can arrive on site, drill a relief well, kill and abandon the original well, and abandon the relief well prior to expected seasonal ice encroachment at the drill site, but no later than 45 days after the loss of well control. In estimating the costs of this provision, BSEE included relief rig equipment capital costs and relief rig documentation costs, but did not include potential costs of the maximum 7 additional days (above the baseline) that drilling or work below the surface casing could not take place each season as a result of the maximum 45-day timeframe. ISOBSEE lacks data on how such a limitation would affect future exploratory drilling operations. BSEE requests information on the potential costs, if any, due to the cessation of drilling or other work below the surface casing up to 7 days (beyond the baseline) earlier than would otherwise occur without the proposed relief rig requirement. Any such comments should account for the benefits of other operations (such as maintenance and, in some cases, drilling a second top hole) that could continue on the site after drilling or work below the surface casing ceases.

x. Additional Auditing Requirements: This provision would increase the SEMS audit frequency and facility coverage for Arctic OCS exploratory drilling operations.

xi. *Real-time Location Tracking Requirements*: This proposed provision describes additional information requirements for the emergency-response action plan section of the OSRP for operators conducting exploratory drilling on the Arctic OCS. Operators would be required to describe how they would maintain an effective tracking and management system that is able to locate in real-time all response equipment and personnel conducting response activities, or transiting to and from the response site(s), and to maintain a current picture of resources entering and exiting staging areas and the operational status of those resources.

xii. *IOP Requirements*: The proposed rule would require operators proposing to conduct exploratory drilling operations on the Arctic OCS to develop an IOP for each proposed exploratory drilling program on the Arctic OCS, and to submit the IOP to BOEM at least 90 days in advance of filing an EP.

xiii. *Planning Information Requirements to Accompany EPs*: This includes proposed additional information requirements for planning information that must accompany EPs for operators proposing to conduct exploration activities in the Arctic OCS Region.

xiv. *Industry Familiarization with the New Rule*: Assuming the new regulation takes effect, industry would need to read and interpret the rule. Through this review, operators would familiarize themselves with the structure of the new rule and identify any new provisions relevant to their operations. Operators also would evaluate whether they must take any new action to achieve compliance with the rule.

Exhibit 2. 10-Year Average Annual Costs by Provision (with no discounting)

Provision	10-year Average Annual Costs: Alternative 1 (with 7-day BOP testing requirement)	1-year Average Annual Costs: Alternative 2 (without 7-day BOP testing requirement)
a. Additional Incident Reporting Requirements	$5,374	$5,374
b. Additional Pollution Prevention Requirements	$13,585	$13,585
c. Additional Requirements for Securing Wells	$24,000,000	$24,000,000
d. Additional BOP Pressure Testing Requirements	$19,2000,000	$0
e. Real-time Monitoring Requirements	$2,208,000	$2,208,000
f. Additional Information Requirements for APDs	$16,771	$16,771
g. Incorporation of API RP 2N, Third Edition	$9,240	$9,240
h. Additional SCCE Requirements	$31,471,823	$31,471,823
i. Relief Rig Requirements	$55,208,133	$55,208,133
j. Additional Auditing Requirements	$249,482	$249,482
k. Real-time Location Tracking Requirements	$121,044	$121,044
l. IOP Requirements	$125,167	$125,167
m. Planning Information Requirements to Accompany EPs	$28,702	$28,702
n. Industry Familiarization with the New Rule	$313	$313
TOTAL	**$132,657,635**	**$113,457,635**

We also estimated the costs for Alternative 1, the proposed rule with the additional BOP pressure testing requirement, and Alternative 2, the proposed rule without the additional BOP pressure testing requirements. Exhibit 3 summarizes the costs for both

alternatives using discount rates of 3 percent and 7 percent. Alternative 1, the proposed rule, would result in economic costs of $1.2 billion with 3-percent discounting and $1.1 billion with 7-percent discounting over 10 years. This estimate assumes the cost associated with staging a standby relief rig as outlined in Section VI.B.3.(i.e., *Relief Rig Capital Costs.*

Exhibit 3. Summary of Monetized Costs[1,2]

Year	Industry Costs: Alternative 1	Industry Costs: Alternative 2	Government Costs	Total Costs: Alternative 1	Total Costs: Alternative 2
	A	**B**	**C**	**D = A + C**	**E = B + C**
2015	$294,689,955	$288,689,955	$155,932	$294,845,887	$288.845,887
2016	$304,631,665	$298,631,665	$171,956	$304,803,620	$298,803,620
2017	$35,717,099	$23,717,099	$162,221	$35,879,320	$23,879,320
2018	$322,562,375	$298,562,375	$225,779	$322,788,154	$298,788,154
2019	$52,406,644	$28,406,644	$214,296	$52,620,941	$28,620,941
2020	$62,678,863	$38,678,863	$172,010	$62,850,873	$38,850,873
2021	$63,065,863	$39,065,863	$225,271	$63,291,135	$39,291,135
2022	$63,129,138	$39,129,138	$225,271	$63,354,409	$39,354,409
2023	$62,678,863	$38,678,863	$172,010	$62,850,873	$38,850,873
2024	$63,065,863	$39,065,863	$225,271	$63,291,135	$39,291,135
Undiscounted 10-year total	**$1,324,626,328**	**$1,132,626,328**	**$1,950,018**	**$1,326,576,346**	**$1,134,576,346**
PV 10-year total with 3% discounting	**$1,221,896,314**	**$1,057,816,579**	**$1,701,450**	**$1,223,597,763**	**$1,059,518,028**
PV 10-year total with 7% discounting	**$1,110,686,488**	**$975,624,608**	**$1,441,797**	**$1,112,128,285**	**$977,066,405**
Annualized with 3% discounting	**$143,243,524**	**$124,008,373**	**$199,462**	**$143,442,986**	**$124,207,835**
Annualized with 7% discounting	**$158,136,768**	**$138,906,995**	**$205,279**	**$158,342,048**	**$139,112,275**

[1]Totals might not add because of rounding.
[2]For explanation of the 3-percent and 7-percent discounting methodology, *see* n. 2 in Exhibit 24 of the Initial RIA.

5. Benefits

Many of the potential benefits of the proposed rule—based primarily on preventing or reducing the duration or severity of catastrophic oil spills—are difficult to quantify. The proposed rule would benefit society and the environment by reducing the potential for an incident resulting in an oil spill and, if an incident does occur, by reducing the duration or severity of the spill. The objective of the proposed rule is to ensure safe and responsible oil and gas drilling on the Arctic OCS resulting in increased safety for personnel; protection of the coastal, human, and marine environments and of species; and reducing potential conflicts between OCS oil and gas activities and the Alaska Natives' ability to conduct subsistence activities. The magnitude of these benefits, however, is uncertain and highly dependent on the actual reduction in the probability of incidents and the effectiveness of stopping or containing a spill already underway.

The following break-even analysis describes the reduction in the duration of a catastrophic oil spill that would be needed to generate certain quantifiable benefits equal to or greater than the estimated costs associated with this proposed rule. In addition, because the probability and length of a catastrophic oil spill would be reduced, other benefits—beyond what we captured in the break-even analyses—would result from the proposed rule. Due to challenges in measuring these additional benefits, we do not offer a quantitative assessment of them; instead, we present a qualitative discussion.

i. Break-Even Analysis: BOEM and BSEE conducted a break-even analysis of the proposed rule (Alternative 1) because of the difficulties associated with estimating the

benefits of reducing the probability and consequences of a catastrophic oil spill and the uncertainty and measurement problems associated with several categories of benefits.[16]

For the proposed rule, using the estimated discounted costs at 3 and 7 percent and the potential benefits (in terms of avoided costs of incidents), we calculated a break-even number of avoided days of spilled oil if a catastrophic oil spill were to occur. This estimate reflects the number of avoided days of spilled oil needed for the proposed rule to achieve at least zero net benefits. Any avoided days of spilled oil greater than these break-even points result in the proposed rule's achieving positive net benefits, should a catastrophic spill occur (*i.e.*, it is cost-beneficial). We also show the estimated total cost of a catastrophic oil spill relative to the total cost of the proposed rule. Exhibit 4 presents the total cost of a catastrophic spill and the 10-year cost of the rule.

Exhibit 4. Total Cost of a Catastrophic Oil Spill Compared to the 10-year Cost of the Rule

Location	Cost of a Spill ($ millions)		10-year Cost of the Rule ($ millions)	
	Low	High	7% Discounting	3% Discounting
Chukchi Sea	$10,074.2	$15,752.6	$1,112	$1,224
Beaufort Sea	$12,155.9	$27,771.5	$1,112	$1,224

Quantifiable costs of a catastrophic oil spill in the Chukchi Sea range from $10.07 billion to $15.75 billion and in the Beaufort Sea from $12.16 billion to $27.77 billion.

[16] A catastrophic oil spill is a low-probability, high-consequence event because it is an event that occurs infrequently, but has large consequences when it does occur. For such events, it is difficult to know with any certainty the probability of the event actually occurring, or to precisely determine the reduction in the probability of occurrence that a proposed regulation would actually achieve. In addition, the consequences of an oil spill depend on several factors, including the type and amount of oil, the location of the spill, the areal distribution of the release, the sensitivity of the ecosystem affected, and the weather.

Thus, quantifiable costs of an oil spill are more than the cost of the proposed rule; however, the probability of a catastrophic oil spill is very low. A catastrophic spill resulting from exploratory drilling on the Arctic OCS, for example, is considered unlikely due to the nature of the geology, shallow water depth, and simplicity of the wells. However, due to the limited drilling history on the Arctic OCS, projections cannot be made with certainty. Exhibit 5 presents a summary of the results of the break-even analysis for the proposed rule; a full description of the results and methodology is contained in the Initial RIA.

Exhibit 5. Break-even Results: Number of Days of Oil Spill Prevented

Location	Cost of Spill per Day ($ millions)	10-Year Cost of the Rule ($ millions)		Break-even Number of Days	
		7% Discounting	3% Discounting	7% Discounting	3% Discounting
Chukchi Sea	$177.5	$1,112	$1,224	6.3	6.9
Beaufort Sea	$113.6	$1,112	$1.224	9.8	10.8

Over the 10-year cost analysis period, the number of avoided/reduced days of a catastrophic oil spill needed to break-even is between 6.3 and 6.9 days for the Chukchi Sea and 9.8 and 10.8 days for the Beaufort Sea. To provide context, the BOEM Case Study estimates that the duration of a catastrophic incident in the Chukchi Sea could be between 40 and 75 days and an incident in the Beaufort Sea could be between 60 and 300 days. One of the key goals of the proposed SCCE and relief rig provisions is to reduce the duration of such a spill should one occur.

BOEM and BSEE believe that this break-even analysis is an appropriate way to evaluate the costs and benefits of the proposed rule under the circumstances. However,

we invite comments on the assumptions, data, and methods used in this break-even analysis, as described fully in the Initial RIA. We also invite comments on whether there is a better alternative method for evaluating the costs and benefits of the proposed rule.

ii. Qualitative Benefits: Because BOEM and BSEE used a conservative approach in the valuation of an oil spill in the break-even analysis, the identified cost of a catastrophic oil spill can be considered a lower bound of the true cost of such an event to society and of the potential benefits from preventing such an event. Although the break-even analysis captures some of the environmental damage associated with a catastrophic oil spill, the analysis is limited because it only considers the environmental amenities that researchers could identify and monetize. Natural resource valuation is complex; many factors contribute to how society values a resource, including both use and non-use values of the resources. Many use values can be estimated by behavior and market transactions (for example, using the harvest value of yields in the Arctic OCS region). Many other use values, however, might not be related to a market and are, therefore, difficult to monetize. For example, Alaska Native communities place a high value on the cultural amenities related directly to the use of the region. Because communities do not trade cultural amenities in markets, we are unable to estimate a direct value of these resources.

Non-use values are much harder to estimate; common non-use values include existence values and bequest values. Individuals place a value on environmental amenities by knowing that preservation and protection of the region exists even if those individuals do not intend to visit the region. Bequest values relate to individuals placing a value on the preservation of regions for future generations even if they do not intend to

use the resource themselves. For example, many non-native Alaskans, and many other Americans who do not live in Alaska, place a very high value on protecting the health of the ecosystem, including the sensitive environment and wildlife, of this largely frontier area. Thus, the impact of a catastrophic oil spill, would have extremely high cultural and societal costs, and prevention of such a catastrophe would have correspondingly high cultural and societal benefits. Capturing these complex values is difficult because they are not traded in markets. Because we are unable to monetize all aspects of the consequences of an oil spill, the estimate we used in the break-even analysis captures only a portion of the value to society.

The objective of the proposed rulemaking is to ensure safe and responsible oil and gas drilling on the Arctic OCS, which would result in increased safety for personnel, protection of the marine environment and species, protection of Alaska Natives' cultural values, and removal of impediments to Alaska Natives' subsistence use. In addition, the proposed rule achieves better coordination among BSEE, BOEM, and other government agencies. For example, the information required in proposed §550.204 would facilitate interagency coordination between DOI and other relevant Federal agencies, as recommended in the 60-Day Report.

Exhibit 6 presents the provisions of the proposed rule along with their primary qualitative benefits, such as improving oversight of operations by Federal agencies, minimizing natural resource and ecosystem impacts, reducing the risk of a spill, improving containment of a spill, and a general benefit.

Exhibit 6. Examples of Qualitative Benefits by Provision

Provision	Primary Benefits
a. Additional Incident Reporting Requirements	Improves oversight of operations by Federal agencies
b. Pollution Prevention Requirements	Minimizes natural resource impacts
c. Additional Requirements for Securing Wells	Reduces risk of a spill
d. Additional BOP Pressure Testing Requirements	Reduces risk of a spill
e. Real-time Monitoring Requirements	Reduces risk of a spill
f. Additional Information Requirements for APDs	Improves oversight of operations by Federal agencies
g. Incorporation of API RP 2N, Third Edition	Reduces risk of a spill
h. Additional SCCE Requirements	Improves containment of a spill
i. Relief Rig Requirements	Improves containment of a spill
j. Additional Auditing Requirements	Improves oversight of operations by Federal agencies
k. Real-time Location Tracking Requirements	Improves oversight of operations by Federal agencies
l. IOP Requirements	Reduces risk of a spill
m. Planning Information Requirements to Accompany EPs	Improves oversight of operations by Federal agencies
n. Industry Familiarization with the New Rule	General

6. Conclusion

The proposed rule would reduce both the overall risk of oil spills on the Arctic OCS and the consequences of a spill if one were to occur. We conducted a break-even analysis of the benefits of the proposed rule. In addition, we included a qualitative discussion of potential benefits of the proposed rule that could not be quantified or monetized. The break-even analysis showed that for the Chukchi Sea, a minimum

reduction of 6.3 to 6.9 days for a catastrophic oil spill would result in a cost-beneficial rule over the 10-year study period. For the Beaufort Sea, we estimated that a minimum reduction of between 9.8 and 10.8 days for a catastrophic oil spill would result in a cost-beneficial rule over the 10-year study period.

In addition to the quantifiable benefits, there are significant qualitative benefits, including protection of Alaska Native communities' cultural resources and subsistence needs and other unquantifiable environmental, cultural, and societal benefits. Accordingly, BOEM and BSEE have determined that the benefits of the proposed rule justify its potential costs and that it is appropriate to proceed with this proposed rule.

C. E.O. 13563

E.O. 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. In addition, E.O. 13563 directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. It also emphasizes that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We developed this proposed rule in a manner consistent with these requirements. BOEM and BSEE worked closely with engineers and technical staff to ensure this rulemaking follows sound engineering principles and options through research, standards development, and interaction with industry.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601-612, requires agencies to analyze the economic impact of proposed regulations when a significant economic impact on a substantial number of small entities is likely and to consider regulatory alternatives that will achieve the agency's goals while minimizing the burden on small entities. In addition, the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 601note, requires agencies to produce compliance guidance for small entities if the rule has a significant economic impact. For the reasons explained in this section, BOEM and BSEE have concluded that the proposed rule is likely to have a significant economic impact on a substantial number of small entities and, therefore, a regulatory flexibility analysis is required. This Initial Regulatory Flexibility Analysis assesses the impact of the proposed rule on small entities, as defined by the applicable Small Business Administration size standards.

1. Description of the Reasons Why Action by the Agency Is Being Considered

Although a comprehensive OCS oil and gas regulatory program exists, DOI engagement with partners and stakeholders reveals the need for new and revised regulatory measures for exploratory drilling by floating drilling vessels and "jackup rigs" (collectively known as MODUs) on the Arctic OCS. The U.S. Arctic region, as recognized by the U.S. and defined in the U.S. Arctic Research and Policy Act of 1984, encompasses an extensive marine and terrestrial area; but this proposed rule focuses solely on the OCS within the Beaufort Sea and Chukchi Sea Planning Areas.

BOEM and BSEE have undertaken extensive environmental and safety reviews of potential oil and gas operations on the Arctic OCS. These reviews, along with concerns

expressed by environmental organizations and Alaska Natives, reinforce the need to develop additional measures specifically tailored to the operational and environmental conditions of the Arctic OCS. After considering the input provided by various partners and stakeholders and DOI's direct experience from Shell's 2012 Arctic operations, BOEM and BSEE have concluded that additional exploratory drilling regulations would enhance and clarify existing regulations and would be appropriate for a more holistic Arctic OCS oil and gas regulatory framework.

This proposed rulemaking is intended to ensure that Arctic OCS exploratory drilling operations are conducted in a safe and responsible manner that considers the unique conditions of Arctic OCS drilling and Alaska Natives' cultural traditions and need to access subsistence resources. The Arctic region is known for its oil and gas resource potential, its vibrant ecosystems, and the Alaska Native communities. Extreme environmental conditions, geographic remoteness, and a relative lack of fixed infrastructure and existing operations characterize the region. These factors are key in considering the feasibility, practicality, and safety of conducting offshore oil and gas activities on the Arctic OCS.

This proposed rule would add to and revise existing regulations in 30 CFR parts 250, 254, and 550 for Arctic OCS oil and gas activities. The proposed rule would focus on Arctic OCS exploratory drilling activities that use MODUs and related operations during the Arctic OCS open-water drilling season. This proposed rule would address several important issues and objectives, including ensuring that operators:

i. Design and conduct exploration programs in a manner suitable for Arctic OCS conditions;

ii. Develop an IOP that would address all phases of the proposed Arctic OCS exploration program and submit the IOP to BOEM at least 90 days in advance of filing the EP;

iii. Have access to and the ability to promptly deploy SCCE, while drilling below or working below the surface casing;

iv. Have access to a separate relief rig located so that it could timely drill a relief well, in the event of a loss of well control, under the conditions expected at the site;

v. Have the capability to predict, track, report, and respond to ice conditions and adverse weather events;

vi. Effectively manage and oversee contractors; and

vii. Develop and implement OSRPs designed and executed in a manner suitable for the unique Arctic OCS operating environment and have the necessary equipment, training, and personnel for oil spill response on the Arctic OCS.

The proposed rule would further the Nation's interest in exploring frontier areas, such as those in the Arctic region, and would establish specific operating models and requirements for the extreme, changing conditions that exist on the Arctic OCS. The proposed regulations would require comprehensive planning of operations, especially for emergency response and safety systems. The proposed rule would seek to institutionalize a proactive approach to offshore safety. A goal of the proposed rule is to identify possible vulnerabilities early in the planning process so that corrections can be made to decrease the potential for an incident occurring. The requirements in the proposed rule

also are designed to ensure that those plans would be executed in a safe and environmentally protective manner, despite the challenges the Arctic presents.

2. We identified the following provisions of the proposed rule as having a cost to industry:

i. Additional incident reporting requirements;

ii. Pollution prevention requirements;

iii. Additional requirements for securing wells;

iv. Additional BOP pressure testing requirements;

v. Real-time monitoring requirements;

vi. Additional information requirements for APDs;

vii. Incorporation of proposed draft API RP 2N;

viii. Additional SCCE requirements;

ix. Relief rig requirements;

x. Additional auditing requirements;

xi. Real-time location tracking requirements;

xii. IOP requirements;

xiii. Additional requirements for EPs; and

xiv. Industry familiarization with the rule.

3. Succinct Statement of the Objectives of, and Legal Basis for, the Proposed Rule.

The objectives and legal basis are described in part II, Background, of the proposed rule.

4. Description of and, Where Feasible, an Estimate of the Number of Small

Entities to Which the Proposed Rule Will Apply

The RFA defines small entities as small businesses, small nonprofits, and small governmental jurisdictions. We have identified no small nonprofits or small government jurisdictions that the proposed rule would impact, so this analysis focuses on impacts on small businesses (hereafter referred to as "small entities"). A small entity is one that is "independently owned and operated and which is not dominant in its field of operation."[17] The definition of small business varies from industry to industry to capture industry size differences properly.

The proposed rule would affect operators and holders of Federal oil and gas leases that could conduct exploratory drilling on the Arctic OCS. According to BOEM's list of leaseholders on the Arctic OCS as of May 2014, 10 businesses hold leases on the Arctic OCS.[18] Three of these businesses are anticipated to conduct exploratory drilling on the Arctic OCS over the next 10 years, although any business holding a lease could conduct exploratory drilling on the Arctic OCS and would thus be subject to the requirements of this proposed rule.

Businesses subject to this rule fall under North American Industry Classification System codes 211111 (Crude Petroleum and Natural Gas Extraction) and 213111 (Drilling Oil and Gas Wells). For these classifications, a small business is defined as one with fewer than 500 employees. Based on this criterion, only one business currently holding a Federal oil and gas lease on the Arctic OCS is considered small. Although

[17] *See* 5 U.S.C. 601.
[18] *See* www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Leasing/Alaska_Lease_Holdings_by_Owner_or_Partial_Owner.pdf

BOEM and BSEE do not expect a small entity to conduct exploratory drilling on the Arctic OCS during the 10-year analysis period, any business holding a lease could operate on the Arctic OCS. Using the number of businesses holding such leases as the universe subject to this rule, 10 percent (1 of 10) of the firms are considered small. Thus, the proposed rule would affect a "substantial number" of small entities, defined by BOEM and BSEE as 10 percent or more of the potentially affected entities. Thus, although we do not expect that a small entity would conduct exploratory drilling during the analysis period, to be conservative, we have conducted this RFA analysis to demonstrate the likely effects the proposed rule would have on a hypothetical small operator.

5. Description of the Projected Reporting, Recordkeeping and Other Compliance Requirements of the Proposed Rule, Including an Estimate of the Classes of Small Entities That Will Be Subject to the Requirement and the Type of Professional Skills Necessary for Preparation of the Report or Record

BOEM and BSEE have estimated the incremental costs for small oil and gas leaseholders that decide to engage in exploratory drilling on the Arctic OCS. This analysis reflects only costs associated with activities and capital investments required by the proposed rule that represent a change from the baseline. The baseline for this proposed rule includes existing regulations, standard industry practices, operator prudence, and assumptions based on requirements for Shell's 2012 Arctic OCS operations that were imposed by BOEM or BSEE under their existing regulatory

authorities.[19] Cost estimates included in this analysis for the provisions of the proposed rule are those presented in detail in the Initial RIA.

i. Total cost estimates by provision

BOEM and BSEE assessed the costs associated with the proposed regulation by estimating the cost for a hypothetical small operator. We assumed that this operator would conduct an exploratory drilling program with one rig, two wells, two APDs, and one OSRP, IOP, and EP each. For each provision, we estimated the per-rig, per-well/APD, per-OSRP, per-IOP, and per-EP cost, where applicable. Following is a summary of the unit costs using the estimates developed in the RIA.[20] Please refer to the Initial RIA for details on the cost estimates.

For the incident reporting activities, we estimated the per-rig cost at $1,146, including both the costs for ice movement activity oral reports ($313 per rig) and the costs associated with written reports ($834 per rig). For the pollution prevention requirements, we estimated the costs per rig to capture and transport mud and cuttings to be $4,245. For the additional requirements for securing wells, we included both the capital costs ($2,000,000) and the labor and operational costs ($3,000,000) for a total per-well cost of $5,000,000.

We assessed the costs for Alternative 1 (the proposed rule with the additional BOP pressure-testing requirements) and Alternative 2 (the proposed rule without the additional BOP pressure-testing requirements). For the additional BOP pressure-testing

[19] *See* the Initial RIA for the proposed rule for details on baseline assumptions. We state all costs in 2012 constant dollars.
[20] Totals might not add because of rounding.

requirements included under Alternative 1, BSEE included the per-rig labor cost of $6,000,000. These costs are not included in the cost estimates for Alternative 2. (*See* Section 6 following for details on the alternatives.) For the proposed real-time monitoring requirements, we estimated a per-rig labor cost of $690,000. For the proposed additional information requirements for the APDs, we estimated a per-rig labor cost of $1,491 and a per-well labor cost of $1,305. For the proposed incorporation of draft API RP2N, Third Edition, we estimated a per-rig labor cost of $1,918. For the enhanced auditing requirements, we estimated a per-rig labor cost of $129,000. For the proposed real-time tracking requirements, we estimated a per-OSRP labor cost of $401.

In addition, we included a cost of $102,624 ($63,274 upfront cost plus $39,350 annual cost) per rig to account for the purchase, operation, and maintenance of an Automatic Identification System (AIS) as an example of costs to comply with the real-time tracking requirements for oil spill response resources.[21] For the proposed IOP requirements, we estimated a per-IOP labor cost of $8,633. For the proposed planning information requirements to accompany the EPs, we estimated a per-EP labor cost of $4,316. Finally, we estimated a per-operator cost of $1,042 for the time needed for an operator to become familiar with the rule.

The proposed SCCE requirements have several different cost components for both rigs and wells. We estimated a one-time capital cost per rig of $270,000,000 and an annual redeployment cost of $1,200,000 per rig. For the aggregate cost of the SCCE, we varied the assumptions for purchase and redeployment costs based on whether the operator

[21] As explained in the initial RIA, proposed §254.80(c) does not require any specific real-time tracking system, so we used AIS as a representative system for costs analysis purposes.

purchases the equipment or engages in resource sharing, as discussed later. For the Regional Supervisor-initiated tests, we estimated a per-rig cost of $500,000. For the stump tests, we assumed that the operator would use a pre-positioned capping stack (PPCS) and estimated that each PPCS stump test costs $160,208 per well. We assumed one stump test before installation on each well and one stump test before deployment. Although the operator could instead use a dry-stored capping stack, we conservatively assumed that the operator would use a PPCS, which results in higher costs. For the proposed information requirements for the well design change, we estimated a per-well labor cost of $959. We also estimated a per-well labor cost of $1,174 to maintain the SCCE records and a per-well labor cost of $5,755 for the APD documents. The total SCCE requirements sum to $271,700,000 per rig and $328,305 per well.[22]

For the proposed relief rig requirements, we included the costs associated with the proposed information documentation requirements for the relief rig. We estimated the labor cost associated with the documentation requirements for the relief rig to be $14,591 per rig. As discussed in the Initial RIA, we do not include costs associated with the proposed 45-day maximum limit on the time necessary to complete the required relief rig activities under Section 250.472 because we lack information regarding potential costs, if any, above the baseline that might accrue from the cessation of drilling or other work below the surface casing under this proposed requirement.

We present the least-cost means to comply with the proposed rule, and thus assume that a small entity would not incur the costs of a standby relief rig and would enter into a

[22] These totals are derived, respectively, as follows: ($270,000,000 + $1,200,000 + $500,000) and ($160,208 + $160,208 + $959 + $1,174 + $5,755).

resource sharing agreement to comply with the relief rig requirements. If, however, a small entity chooses to deploy a dedicated standby relief rig to comply with regulatory requirements, it could incur costs of approximately $276 million per rig, per season.

Exhibit 7 presents the unit costs per provision for a small operator. These estimates include the full cost of the proposed SCCE requirements, assuming no resource sharing with another operator, and costs associated with the enhanced BOP pressure testing requirements under Alternative 1.

Exhibit 7. Unit Cost of the Proposed Rule by Provision (with No Resource Sharing)

Provision	Cost per Rig	Cost per Well/APD	Cost per Operator (EP/IOP/OSRP)
a. Additional Incident Reporting Requirements	$1,146		
b. Pollution Prevention Requirements	$4,245		
c. Additional Requirements for Securing Wells		$5,000,000	
d. Additional BOP Pressure Testing Requirements	$6,000,000		
e. Real-time Monitoring Requirements	$690,000		
f. Additional Information Requirements for APDs	$1,491	$1,305	
g. Incorporation of draft API RP 2N, Third Ed.	$1,918		
h. Additional SCCE Requirements	$271,700,000	$328,305	
i. Relief Rig Requirements	$14,591		
j. Additional Auditing Requirements	$129,000		
k. Real-time Location Tracking Requirements	$102,624		$401
l. IOP Requirements			$8,633
m. Planning Information Requirements to Accompany Eps			$4,316
n. Industry Familiarization with the New Rule			$1,042
Total Annual Cost Per Rig/Well/Operator[1]	**$278,645,016**	**$5,329,610**	**$14,393**

[1] Totals might not add because of rounding.

ii. Total Cost Burden for Small Entities

We calculated the cost to a single small operator under different alternatives and differing assumptions regarding resource sharing of the SCCE. We assumed that the SCCE purchase cost would be $270,000,000 and the annual redeployment cost would be $1,200,000.

We estimated the highest-cost scenario for a small operator to present the most conservative estimate possible of the potential for a significant economic impact. Under this highest-cost scenario, the small operator would need to purchase and deploy the SCCE (*i.e.*, no resource sharing) and would be subject to the additional BOP pressure-testing requirements under Alternative 1. We also estimated the costs of Alternative 2 (*i.e.*, no additional BOP pressure-testing requirements) assuming no resource sharing of SCCE. Under the lowest-cost scenario, the small operator would employ resource sharing of SCCE and would not be subject to the additional BOP pressure-testing requirements (as in Alternative 2). We also estimated the costs of Alternative 1 assuming resource sharing of SCCE.

Next, we estimated the average annual revenue of an affected small operator. We used an annual revenue estimate of $45.7 million for the small operator as calculated in the final RIA for BSEE's "Oil and Gas and Sulphur Operations on the Outer Continental Shelf: Oil and Gas Production Safety Systems" rulemaking (77 FR 50856, Aug. 22,

2012).[23] We used this estimate of average annual revenue to calculate the ratio of total costs of the proposed rule as a percentage of average annual revenue to determine if the proposed rule would result in a significant economic impact on small entities.

Exhibit 8 presents estimates of the total first-year costs to a small operator under each scenario and the total first-year costs as a percentage of average annual revenue. Under all scenarios, the first-year costs as a percentage of revenue surpass the 1-percent threshold used to define a significant economic impact. Even under the lowest-cost scenario, assuming that the operator would engage in resource sharing of the SCCE and would not be subject to the additional BOP pressure-testing requirements (as in Alternative 2), the small operator would experience a total first-year cost equal to 29 percent of their average annual revenue. For the scenarios that assume no resource sharing of SCCE, the total first-year costs as a percentage of revenue are greater than 100 percent, indicating that the total first-year costs the small operator would experience would be greater than its total average annual revenue.[24]

[23] *See* 77 FR 50856 (August 22, 2012). The final RIA for that rulemaking can be viewed at www.regulations.gov/#!documentDetail;D=BSEE-2012-0002-0047. The data in the source document are from the Office of Natural Resources Revenue. The data source reports the total 2009 small business revenue to be $4,113,000,000. We calculated the average revenue per small business by dividing the total small business revenue by the number of small businesses ($4,113,000,000 / 90) to obtain an average of $45,700,000 per operator.

[24] As stated earlier, BOEM and BSEE do not expect an actual small operator to conduct exploratory drilling on the Arctic OCS during the 10-year period of this analysis, although we have prepared this analysis to be conservative (since one current Arctic OCS lessee is a small entity). Thus, this analysis considers the average annual revenue of small OCS operators.

Exhibit 8. First-year Costs as a Percentage of Average Annual Revenue per Operator

Scenario	Total First-year Cost	Total First-year Cost as Percent of Revenue
	A	B = A / $45.7 million
Alternative 1 with No Resource Sharing of SCCE	$289,318,628	633%
Alternative 2 with No Resource Sharing of SCCE	$283,318,628	620%
Alternative 1 with Resource Sharing of SCCE	$19,318,628	42%
Alternative 2 with Resource Sharing of SCCE	$13,318,628	29%

Exhibit 9 presents estimates of the total annual ongoing costs (the costs in the second year and after) to a small operator under each scenario, or the costs incurred on an annual basis after, and not including, the first-year of the analysis period. Exhibit 9 also presents the total annual ongoing costs as a percentage of average annual revenue. Under all scenarios, the annual ongoing costs as a percentage of revenue surpass the 1-percent threshold used to define a significant economic impact. Under Alternative 1, a small operator would experience total annual ongoing costs equal to 42 percent of their average annual revenue, and under Alternative 2, total annual ongoing costs to small operators would be equal to 29 percent of average annual revenue. Costs after the first year do not vary based on SCCE resource-sharing assumptions because we assumed that SCCE capital costs (if any) would be incurred in the first year.

BOEM and BSEE conclude that the proposed rule would have a "significant economic impact" on small operators because costs are greater than 1 percent of revenue in every year of the analysis period. Although costs are anticipated to be lower for operators after the first year, during which the operator is assumed to purchase capital

equipment, annual costs are still estimated to be well above the 1-percent threshold in the subsequent years of the 10-year analysis period.

Exhibit 9. Annual Ongoing Costs as a Percentage of Average Annual Revenue per Small Operator

Scenario	Total Annual Ongoing Cost	Total Annual Ongoing Cost as Percent of Revenue
	A	B = A / $45.7 million
Alternative 1 with No Resource Sharing of SCCE	$19,125,311	42%
Alternative 2 with No Resource Sharing of SCCE	$13,125,311	29%
Alternative 1 with Resource Sharing of SCCE	$19,125,311	42%
Alternative 2 with Resource Sharing of SCCE	$13,125,311	29%

The conclusion that the rule would have a "significant economic impact" on small operators is based on past revenue of operators and does not account for any potential increase in revenue that operators might experience if Arctic OCS exploratory drilling operations lead to production. Operators conducting exploratory drilling on the Arctic OCS that experience a significant, economically viable discovery of oil or natural gas and that proceed to the production phase could experience a significant increase in revenue. Thus, the analysis presented in this section could understate the revenue, resulting in an overstatement of the impact of the rule when expressed as the ratio of costs to annual revenue.[25]

[25] Conversely, oil and gas exploration has inherent financial risk in that the exploration activities might not yield an economically viable discovery of oil or natural gas.

6. Identification of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict with the Proposed Rule

The proposed rule does not conflict with any relevant Federal rules or duplicate or overlap with any Federal rules in any way that would unnecessarily add cumulative regulatory burdens on small entities without any gain in regulatory benefits.[26] However, BOEM and BSEE request comments identifying any Federal rules that may duplicate, overlap, or conflict with the proposed rule.

7. Description of Significant Alternatives to the Proposed Rule

Several provisions of the proposed rule are performance based, which will enable operators to devise optimal strategies for reducing the cost burden of the proposed rule. In addition, operators might be able to reduce costs through resource sharing. BOEM and BSEE strongly encourage operators proposing exploratory drilling activities on the Arctic OCS to enter into mutual aid agreements for the sharing of vessels, relief well rigs, and other assets or services associated with responding to an oil spill or other emergency.

BOEM and BSEE have considered three major regulatory alternatives for dealing with the safety and environmental concerns raised by exploration activities on the Arctic OCS:

i. Promulgate the rule changes proposed in this proposed rule for the Arctic OCS; or

ii. Promulgate the rule changes described in the proposed rule without including

[26] The proposed revision to 30 CFR 250.300(b) that would prohibit the discharge of petroleum-based mud and associated cuttings may overlap with existing EPA general permits for the Beaufort and Chukchi Seas under the National Pollution Discharge Elimination System regulations (40 CFR part 122) while those permits remain in effect. However, the proposed rule would not add any regulatory burden to any small entity in that regard.

the 7-day BOP pressure-testing requirement for Arctic OCS exploratory drilling operations (in § 250.447 of the proposed rule); or

iii. Take no regulatory action and continue to rely on existing OCS oil and gas regulations, industry standards, and operator prudency.

BSEE has decided not to issue a proposed rule without the 7-day BOP testing requirement. Although maintaining the testing frequency at 14 days would reduce the total costs of the proposed rule, the additional testing requirement is intended to help ensure that BOPs deployed in the Arctic OCS function properly and reduce the risk of blowouts.

BOEM and BSEE also have decided to move forward with this proposed rule, in lieu of taking no regulatory action, because relying on the regulatory status quo would not address the safety and environmental concerns partners and stakeholders have raised and thus would not achieve the objectives of this proposed rule. In addition, the proposed rule would confer additional protections on the environment and Alaska Native cultural activities. Further, the projected potential for impacts on small entities is mitigated by the fact that the agencies do not anticipate any small entity independently pursuing exploration drilling on the Arctic OCS during the 10-year analysis period.

E. Unfunded Mandates Reform Act of 1995 (UMRA)

This proposed rule would not impose an unfunded Federal mandate on State, local, or tribal governments but would, if finalized, create a Federal private sector mandate that could require expenditures exceeding $100 million in a single year by offshore oil and gas exploration companies operating on the Arctic OCS. Accordingly, DOI has prepared written statements satisfying the applicable requirements of the UMRA, 2 U.S.C. 1501 *et*

seq. Those requirements are addressed in the Initial RIA and initial RFA analyses for this proposed rule and in the proposed rule itself.

Among other things, the proposed rule, Initial RIA, and/or Initial RFA:

1. Identify the provisions of Federal law (OCSLA, CWA, and OPA) under which this rule is being proposed;

2. Include a quantitative assessment of the anticipated costs to the private sector (*i.e.*, expenditures on labor and equipment) of the proposed rule; and

3. Include qualitative and quantitative assessments of the anticipated benefits of the proposed rule.

Since all of the anticipated expenditures by the private sector analyzed in the Initial RIA and the Initial RFA analyses would be borne by the offshore oil and gas exploration industry in the Arctic region, the Initial RIA and Initial RFA analyses satisfy the UMRA requirement to estimate any disproportionate budgetary effects of the proposed rule on a particular segment of the private sector (*i.e.*, the offshore oil and gas industry).

As discussed in the Regulatory Planning and Review **s**ection of this proposed rule, and explained fully in the Initial RIA, BOEM and BSEE considered three major regulatory alternatives for dealing with the safety and environmental concerns raised by exploration activities on the Arctic OCS. BOEM and BSEE have decided to move forward with this proposed rule, in lieu of the other alternatives, because those alternatives would not as efficiently or effectively address the safety, environmental or sociocultural concerns raised by various stakeholders on the Arctic OCS or achieve the objectives of this proposed rule.

BOEM and BSEE have determined that the proposed rule would not impose any

unfunded mandates or any other requirements on State, local or tribal governments; thus, the proposed rule would not have disproportionate budgetary effects on such governments. Assuming, however, that the proposed rule might result in budgetary effects on the Arctic region, BOEM and BSEE have determined that it is not practical to accurately estimate such effects. Since the proposed rule would not impose any requirements on any entities, other than companies and their contractors engaged in Arctic OCS exploration activities, any budgetary effects in that area would be at least indirect, secondary results of actions or decisions taken by regulated (or unregulated) entities, based on a variety of circumstances (such as the price of oil, each entity's overall financial health, and the prospects of success of any exploratory drilling). Because each of those factors is variable and unpredictable, it is not practical to estimate how those factors might affect an entity's future decisions, or what indirect impacts, if any, such decisions could have on future regional budgets.

Similarly, BOEM and BSEE have determined that it is not reasonably feasible to accurately estimate the potential effects, if any, of the proposed rule on the National economy (*e.g.*, productivity, economic growth, employment, international competitiveness). The proposed rule, if finalized, would only affect exploratory drilling activities on the Arctic OCS, and any potential impact on the National economy would depend on individual business decisions made by regulated entities (*e.g.*, whether or not to hire new employees). Moreover, any such decisions would likely be either local or regional in effect and unlikely to have any significant National economic impacts.

F. Takings Implication Assessment

Under the criteria in E.O. 12630, this proposed rule would not have significant takings implications. The proposed rule is not a governmental action capable of interference with constitutionally protected property rights. A Takings Implication Assessment is not required.

G. Federalism (E.O. 13132)

Under the criteria in E.O. 13132, this proposed rule would not have federalism implications. This proposed rule would not substantially and directly affect the relationship between the Federal and State governments. To the extent that State and local governments have a role in OCS activities, this proposed rule would not affect that role. A Federalism Assessment is not required.

H. Civil Justice Reform (E.O. 12988)

This proposed rule complies with the requirements of E.O. 12988. Specifically, this rule:

1. Meets the criteria of § 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and

2. Meets the criteria of § 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

I. Consultation with Indian Tribes (E.O. 13175)

Under the criteria in E.O. 13175, Consultation and Coordination with Indian Tribal Governments (dated November 6, 2000), DOI's Policy on Consultation with Indian Tribes (Secretarial Order 3317, Amendment 2, dated December 31, 2013), and the Alaska Native Corporation Consultation Policy (dated August 12, 2012), we evaluated and

determined that the subject matter of this rulemaking would have tribal implications for Alaska Natives. As described earlier, future Arctic OCS exploratory drilling activities conducted pursuant to this proposed rule could affect Alaska Natives, particularly their ability to engage in subsistence and cultural activities.

BOEM and BSEE are committed to regular and meaningful consultation and collaboration with tribes on policy decisions that have tribal implications including, as an initial step, through complete and consistent implementation of E.O. 13175, together with related orders, directives, and guidance. Therefore, BOEM and BSEE, in coordination with the Office of the Secretary of the Interior's Senior Alaska Representative, engaged in listening sessions, Government-to-Government Tribal consultations, and Government-to-ANCSA Corporations consultations to discuss the subject matter of the proposed rule and solicit input in the development of the proposed rule.

Government-to-Government consultation was held in Barrow between BOEM, BSEE, and the ICAS on June 6, 2013, to both provide background to and obtain information from ICAS leaders and council members. The following day, June 7, 2013, BOEM and BSEE met with leaders and council members of the Native Village of Barrow in a separate Government-to-Government consultation. All Alaska Native input provided during the meetings was subsequently provided to DOI in writing and has been included in the administrative record for this proposed rule.

BOEM and BSEE also held public listening sessions in South-central Alaska (Anchorage) and on the North Slope (Barrow) on June 6 and 7, 2013. The BOEM Alaska Region notified Alaska Native Tribes and ANCSA Corporations of the June 6 and 7,

2013, public listening sessions and Government-to-Government consultations through phone calls, e-mails, newspaper announcements, and BOEM's website.

A series of follow-on meetings and listening sessions were held June 17-20, 2013, in Anchorage resulting, in part, in Government-to-Government consultation between BOEM, BSEE, and the Native Village of Nuiqsut and Government-to-ANCSA Corporation consultations between BOEM, BSEE, and the NANA Regional Corporation and the Cully Corporation (ANCSA Village Corporation) from Point Lay.

Among the most frequent input DOI received through listening sessions and tribal consultation were comments relating to impacts on, and protection of, subsistence hunting and fishing areas and species, including consideration of mammal and fish migratory patterns, hunting and fishing seasons, and impacts of pollutants and equipment movements. Concerns also included the relative lack of infrastructure, such as roads, housing, and equipment, in coastal communities near proposed Arctic OCS oil and gas exploration areas, and inclusion of local Alaska Natives in monitoring and other activities. Commenters also requested that we incorporate traditional knowledge of the Arctic OCS into our decision-making for proposed regulations. We reviewed all comments received to date and have, where appropriate, crafted proposed measures to address Alaska Native concerns. DOI intends to continue consultation with affected tribes and ANCSA Corporations following publication of the proposed rule.

J. E.O. 12898

E.O. 12898 requires Federal agencies to make achieving environmental justice part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority

populations and low-income populations in the U.S. DOI has determined that this proposed rule does not have a disproportionately high or adverse human health or environmental effect on native, minority, or low-income communities because its provisions are designed to increase environmental protection and minimize any impact of exploration drilling on subsistence hunting activities and Alaska Native community resources and infrastructure.

K. Paperwork Reduction Act (PRA)

This rule contains new information collection (IC) requirements for both BOEM and BSEE regulations, and a submission under the PRA is required. Therefore, an IC request for each Bureau is being submitted to OMB for review and approval under 44 U.S.C. 3501 *et seq.* The PRA provides that an agency may not conduct or sponsor, and a person is not required to respond to, an IC unless it displays a currently valid OMB control number. The IC aspects affecting each Bureau are discussed separately. Instructions on how to comment follow those discussions.

BOEM Information Collection—30 CFR Part 550

This proposed rule adds new requirements for submitting EPs and other information before conducting oil and gas exploration drilling activities on the Arctic OCS. The title of the collection for the rulemaking is 30 CFR 550, Subpart B, Arctic OCS Activities - New. The burdens for the current planning requirements under 30 CFR 550, Subpart B, regulations are approved by OMB under Control Number 1010-0151 (190,480 hours, $3,713,665 non-hour costs; expiration 12/31/14; current collection can be viewed at www.reginfo.gov/public/). When final regulations become effective, the new IC burdens for this rulemaking will be consolidated into the existing collection for Subpart B.

Respondents for this rulemaking are Federal oil, gas, or sulphur lessees and/or operators on the Arctic OCS. Submissions are mandatory and generally on occasion. BOEM collects the information to ensure that planned operations will be safe; will not adversely affect the marine, coastal, or human environments; will respond to the special conditions on the Arctic OCS; and will conserve the resources of the Arctic OCS. BOEM uses the information to ensure, through advanced planning, that operators are capable of safely operating in the unique environmental conditions of the Arctic and to make informed decisions on whether to approve EPs as submitted or whether modifications are necessary. BOEM also plans to share the preliminary information submitted in the IOP with other relevant agencies to provide them the opportunity to engage in constructive dialogue/feedback with operators, and each other, early in the process.

The proposed rule adds new requirements under § 550.204 for operators to develop an IOP for each exploratory drilling program on the Arctic OCS, and to submit it to BOEM at least 90 days in advance of filing their EP. The IOP addresses all phases of the operator's proposed Arctic exploration drilling activities at a strategic or conceptual level, showing how operations will be designed, executed, and managed as an integrated endeavor from start to finish.

The proposed rule also revises the IC for plans submission by expanding the requirements under § 550.220 to address the specific conditions (*e.g.*, ice management procedures) associated with oil and gas activity on the Arctic OCS. The rule provisions are intended to ensure that operators on the Arctic OCS design and conduct their exploration drilling activities in a manner suitable for the area's unique conditions.

BOEM estimates that the new requirements will add a total of 270 burden hours to the already approved burdens for plans. Because not all EPs submitted to BOEM will involve Arctic OCS exploration drilling, we are separating the Arctic-specific requirements and burdens from the national EP requirements. The burden table that follows this paragraph outlines the new and expanded requirements and burdens associated with this rulemaking. BOEM has not identified any non-hour cost burdens associated with these requirements.

BURDEN BREAKDOWN

Citation 30 CFR Part 550 Subpart B	**Reporting & Recordkeeping Requirement**	**Hour Burden**	**Average No. of Annual Responses**	**Burden Hours**
Arctic Integrated Operations Plan (IOP)				
New 204[1]	For New Arctic OCS Exploration Activities: Submit IOP, including all required information.	90	2	180
Contents of Exploration Plans (EP)				
206	General requirements for plans.	Burdens already covered under plans in 1010-0151.		0
220	Submit Alaska-specific information.			
Expanded 220	For New Arctic OCS Exploration Activities: Submit required Arctic-specific information with EP, including confirmations.	15	2	30
Expanded 220	For Existing Arctic OCS Exploration Activities: Revise and resubmit Arctic-specific information, as required.	30	2	60
Total Burden for Proposed Rule			6 Responses	270 Hours

[1] Industry already compiles this information internally for planning and contract oversight; therefore, the burden expected is minimal, just to prepare and submit to BOEM.

BSEE Information Collection—30 CFR Parts 250 and 254

The title of the collection of information for this rule is 30 CFR Part 250, Subparts A, D, S and 30 CFR Part 254, Arctic Oil & Gas Exploratory Drilling Operations - New. The proposed regulations establish requirements for safe, responsible, and environmentally

protective Arctic OCS oil and gas exploration, and the information is used in our efforts to protect life and the environment, conserve natural resources, and prevent waste.

Potential respondents comprise Federal OCS oil, gas, and sulphur operators and lessees on the Arctic OCS. The frequency of response varies depending upon the requirement. Responses to this collection of information are mandatory; they are submitted on occasion, annually, or as a result of situations encountered, depending upon the requirement. The IC does not include questions of a sensitive nature. BSEE will protect proprietary information according to the Freedom of Information Act (5 U.S.C. 552) and DOI's implementing regulations (43 CFR part 2), 30 CFR part 252, and 30 CFR 250.197, which address disclosure of data and information to be made available to the public.

As discussed earlier in the preamble, the proposed rule encompasses multiple subparts and focuses on Arctic OCS exploratory drilling activities and related operations. This proposed rule revises several existing collections under BSEE regulations. The requirements and burdens for these regulations are currently approved by OMB under 30 CFR part 250, subpart A, 1014-0022, expiration 8/3/2017 (84,391 hours, $1,371,458 non-hour cost burdens); subpart D, 1014-0018, expiration 10/31/17 (102,512 hours); subpart S, 1014-0017, expiration 3/31/16 (651,728 hours, $9,444,000 non-hour cost burdens); and 30 CFR part 254, 1014-0007, expiration 12/31/2015 (60,198 hours); current collections can be viewed at www.reginfo.gov/public/. When final regulations are promulgated, the new IC burdens for these subparts/parts will be incorporated into the respective collections of information for those regulations.

The following table provides a breakdown of the paperwork and non-hour cost burdens for this proposed rule. For the current requirements retained in the proposed rule, we used the OMB approved estimated hour and non-hour cost burdens, where discernible. However, there are several new requirements in the proposed rule as follows:

1. Subpart A:

In § 250.188(c), we have added immediate oral reporting of any sea ice movement/conditions, start and termination of ice management activities, or kicks or unexpected operational issues, and submission of a written report within 24 hours after completing ice management activities (+11 hours).

2. Subpart D:

In § 250.452(a) and (b), we have added real-time data gathering, monitoring, and storing related to the BOP control system, fluid handling, and downhole conditions, etc.; notify BSEE of location of data; make data available to BSEE upon request (+288 hours).

In § 250.470, we have added information requirements including, but not limited to, detailed descriptions of: environmental, meteorologic, and oceanic conditions expected at well site(s), and, how drilling units and equipment will be prepared for service; transitioning rig from being underway to drilling and vice versa, along with anticipated repair and maintenance plans; specific drilling objectives, timelines, and updated contingency plans for temporary abandonment; weather and ice forecasting and management; compliance with relief well rig requirements; SCCE capabilities, including, but not limited to, submit equipment statement showing capable of controlling WCD, explanation of your or your contractor's SCCE capabilities; inventory of supplies and

services, along with relevant supplier information; proof of contracts or membership agreements to provide SCCE or supplies, services; description of procedures for inspecting, testing, and maintaining SCCE; how all personnel operating SCCE received training to deploy and operate - including dates of prior and planned training; and how the operator incorporated API RP 2N, Third Edition, into its planned drilling operations (+324 hours).

In § 250.471(c), (e), and (f), we propose to add requirements that operators: submit a reevaluation of SCCE capabilities, including any new WCD rate, and demonstrate compliance with proposed § 250.470(f); maintain all SCCE inspection and maintenance records for at least 10 years; make records available to BSEE upon request; maintain all records relating to use of SCCE during testing, training, and deployment activities for at least 3 years; and make records available to BSEE upon request (+100 hours).

In § 250.472(c), we propose to add a provision stating that operators may request approval for alternative compliance measures for relief rig requirements in accordance with existing § 250.141 (+0 hours).

3. Subpart S:

In § 250.1920(b), (c), (d), and (e), the additional non-hour cost burdens pertaining to Audit Service Provider (ASP) audits every year in the Arctic in which exploration drilling is conducted would apply (+$129,000 non-hour cost).

4. 30 CFR Part 254:

Operators currently submit information with their spill response plans (§§ 254.20-29) that is related to the requirements in this rulemaking under proposed §§ 254.70, 254.80, and 254.90; therefore, we believe that the current burden sufficiently covers the proposed

modifications. We have added a new requirement in § 254.80(c) for submitting a description of the system used to maintain real time monitoring (+12 hours).

BURDEN TABLE

Citation 30 CFR parts 250 and 254	Reporting and Recordkeeping Requirements	Hour Burden	Average No. of Annual Responses	Annual Burden Hours
30 CFR Part 250, Subpart A				
188(c); 190	**NEW** - Provide BSEE immediate oral report of sea ice movement/ conditions; start and termination of ice management activities; kicks or unexpected operational issues.	Oral 1.5	2 notifications	3
188(c); 190	**NEW** - Submit a written report within 24 hours after completing ice management activities.	Written 4	2 reports	8
		Subtotal	4 responses	11 hours
30 CFR Part 250, Subpart D				
418	Additional information that is to be submitted with an APD is covered under the specific requirement listed in this burden table under 30 CFR 250.470.			0
452(a), (b)	**NEW** - Immediately transmit real-time data gathering and monitoring to record, store, and transmit data relating to the BOP control system, fluid handling, downhole conditions; prior to well operations, notify BSEE of monitoring location and make data available to BSEE upon request.	12	1 transmittal	12
452(b)	**NEW** - Store and monitor all information relating to § 250.452(a); make data available to BSEE upon request.	1	2 wells x 138 drilling days = 276	276
452(b)	Store and retain all monitoring records per requirements of §§ 250.466 and 467.	Burden covered under 30 CFR 250, Subpart D, 1014-0018.		0
470(a); 417; 418	**NEW** - Submit detailed descriptions of environmental, meteorologic, and oceanic conditions expected at well site(s); how drilling unit, equipment, and materials will be prepared for service; how the drilling unit will be in compliance with § 250.417.	10	1 submittal	10
470(b); 418	**NEW** - Submit detailed description of transitioning rig from being underway to drilling and vice versa.	4	2 each well– underway to drilling; drilling to underway = 4	16
470(b); 418	**NEW** - Submit detailed description of any anticipated repair and maintenance plans for the drilling unit and equipment.	2	2 submittals	4
470(c); 418	**NEW** - Submit well specific drilling objectives, timelines, and updated contingency plans etc., for temporary abandonment.	4	2 submittals	8

Citation 30 CFR parts 250 and 254	Reporting and Recordkeeping Requirements	Hour Burden	Average No. of Annual Responses	Annual Burden Hours
470(d); 418	**NEW** - Submit detailed description concerning weather and ice forecasting for all phases; including how to ensure continuous awareness of weather/ice hazards at/between each well site; plans for managing ice hazards and responding to weather events; verification of capabilities.	6	1 submittal	6
470(e); 418; 472	**NEW** - Submit a detailed description of compliance with relief rig plans.	140	1 explanation	140
470(f); 471(c); 418	**NEW** – SCCE capabilities; submit equipment statement showing capable of controlling WCD; detailed description of your or your contractor's SCCE capabilities including operating assumptions and limitations; inventory of local and regional supplies and services, along with supplier relevant information; proof of contract or agreements for providing SCCE or supplies, services; detailed description of procedures for inspecting, testing, and maintaining SCCE; and detailed description of your plan ensuring all members of the team operating SCCE have received training to deploy and operate, include dates of prior and planned training.	60	2 submittals	120
470(g); 418	**NEW** - Submit a detailed description of utilizing best practices of API RP 2N during operations.	20	1 submittal	20
471(c); 470(f); 465(a)	**NEW** - Submit with your APM, a reevaluation of your SCCE capabilities if well design changes; include any new WCD rate and demonstrate that your SCCE capabilities will comply with § 250.470(f) .	10	2 submittals	20
471(e)	**NEW** - Maintain all SCCE testing, inspection, and maintenance records for at least 10 years; make available to BSEE upon request.	20	2 records	40
471(f)	**NEW** - Maintain all records pertaining to use of SCCE during testing, training, and deployment activities for at least 3 years; make available to BSEE upon request.	20	2 records	40
472(c)	Request approval for alternative compliance for relief rig requirements	Burden covered under 30 CFR 250, Subpart A, 1014-0022		0
		Subtotal	297 responses	712 hours
30 CFR Part 250, Subpart S				
1920(b), (c), (e)	ASP audit for High Activity Operator NOTE: An audit once every 3 years in POCSR and GOMR; an audit in the Arctic in every year in which drilling is conducted.	1 operator x $129,000 audit for high activity = $129,000.		
1920(c)	Submit to BSEE after completed audit, an audit report of findings and conclusions, including deficiencies and required supporting	Burden covered under 30 CFR 250, Subpart S, 1014-0017.		0

Citation 30 CFR parts 250 and 254	Reporting and Recordkeeping Requirements	Hour Burden	Average No. of Annual Responses	Annual Burden Hours
	information/ documentation.			
1920(d)	Submit/resubmit a copy of your CAP that will address deficiencies identified in audit.			
		Subtotal	1 response	0
			$129,000 Non Hour Cost Burdens	
30 CFR Part 254, Subpart E				
55; 70; 80; 90	Submit spill response plan for OCS facilities with all information required in regulations and related documents.	Burden covered under 30 CFR 254, 1014-0007.		0
80(c)	**NEW -** Submit a description of system used to maintain real-time location tracking for all response resources.	6	2 descriptions	12
90(a)	Include in your training and exercise activities the requirements of this section.	Burden covered under 30 CFR 254, 1014-0007.		0
90(b)	Notify BSEE 60 days prior to handling, storing, or transporting oil.			
		Subtotal	2 responses	12 hours
Total Hour Burden			**304 Responses**	**735 Hours**
			$129,000 Non-Hour Cost Burdens	

Note: For FY 2015, we calculated the burden with 2 rigs (same operator), each rig drilling 1 well.

Commenting on Information Collections

As part of our continuing effort to reduce paperwork and respondent burdens, BOEM and BSEE invite the public to comment on any aspect of the reporting and recordkeeping burdens. If you wish to comment on the IC aspects of these regulations, you may send your comments directly to by email to OMB (OIRA_submission@omb.eop.gov) or by fax 202-395-5806 , with a copy to BSEE (see Addresses section). Please identify your comments with RIN: 1082-AA01. To see a copy of either IC request submitted to OMB, go to www.reginfo.gov (select Information Collection Review, Currently Under Review). You may obtain a copy of the supporting statement for the new IC by contacting each Bureau's Information Collection Clearance Officer: Cheryl Blundon, BSEE, (703) 787-1607, and Arlene Bajusz, BOEM, (703) 787-1025.

The OMB is required to make a decision concerning the ICs contained in these proposed regulations between 30 and 60 days after publication of this document in the *Federal Register*. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

BOEM and BSEE specifically solicit comments on the following questions:

1. Is the proposed collection of information necessary for the Bureaus to properly perform their functions, and will it be useful?

2. Are the estimates of the burden hours of the proposed collection reasonable?

3. Do you have any suggestions that would enhance the quality, clarity, or usefulness of the information to be collected?

4. Is there a way to minimize the IC burden on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other forms of information technology?

In addition, the PRA requires agencies to estimate the total annual reporting and recordkeeping non-hour cost burden resulting from the collection of information. BSEE has identified one non-hour cost burden in the BSEE Burden Table. We solicit your comments on any non-hour costs. For reporting and recordkeeping only, your response should split the cost estimate into two components: (1) total capital and startup cost component and (2) annual operation, maintenance, and purchase of services component.

Your estimates should consider the costs to generate, maintain, and disclose or provide the information. You should describe the methods you use to estimate major cost factors, including system and technology acquisition, expected useful life of capital

equipment, discount rate(s), and the period over which you incur costs. Generally, your estimates should not include equipment or services purchased: (1) before October 1, 1995; (2) to comply with requirements not associated with the IC; (3) for reasons other than to provide information or keep records for the Government; or (4) as part of customary and usual business or private practices.

L. National Environmental Policy Act of 1969 (NEPA)

BOEM and BSEE developed a draft Environmental Assessment (EA) to determine whether this proposed rule would have a significant impact on the quality of the human environment under the NEPA. The draft EA is available for review and public comment in conjunction with this proposed rule at www.regulations.gov (in the Search box, enter BSEE-2013-0011).

M. Data Quality Act

In developing this rule, we did not conduct or use a study, experiment, or survey requiring peer review under the Data Quality Act (Pub. L. 106-554, app. C § 515, 114 Stat. 2763, 2763A-153-154).

N. Effects on the Nation's Energy Supply (E.O. 13211)

Although this proposed rule is a significant regulatory action under E.O. 12866, it is not a significant energy action under the definition of that term in E.O. 13211 because:

1. It is not likely to have a significant adverse effect on the supply, distribution or use of energy; and

2. It has not been designated as a significant energy action by the Administrator of OIRA.

Thus, a Statement of Energy Effects is not required.

Due to the inherent practical difficulties of exploration and production in the area, to date there has been relatively little exploration activity, and very little production of oil and gas, on the Arctic OCS. The only existing oil production from the Arctic OCS is through the Northstar Island facility. Since the proposed rule does not apply to development or production activities, it would not reduce or inhibit production of oil and gas and would have no adverse impact on oil and gas supplies or prices.

O. Clarity of this Regulation

We are required by E.O. 12866, E.O. 12988, and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

1. Be logically organized;
2. Use the active voice to address readers directly;
3. Use clear language rather than jargon;
4. Be divided into short sections and sentences; and
5. Use lists and tables wherever possible.

If you believe we have not met these requirements, send us comments by one of the methods listed in the "ADDRESSES" section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that you find unclear, which sections or sentences are too long, or the sections where you believe lists or tables would be useful.

P. Public Availability of Comments

BOEM and BSEE encourage you to participate in this proposed rule by submitting written comments as discussed in the "ADDRESSES" and "DATES" sections of this

proposed rule. Before including your address, phone number, e-mail address or other personal identifying information in your comment on this proposed rule, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

List of Subjects

30 CFR Part 250

Continental shelf, Environmental impact statements, Environmental protection, Government contracts, Incorporation by reference, Investigations, Mineral royalties, Oil and gas development and production, Oil and gas exploration, Oil and gas reserves, Penalties, Pipelines, Public lands–mineral resources, Public lands—rights of-way, Reporting and recordkeeping requirements, Sulphur development and production, Sulphur exploration, Surety bonds.

30 CFR Part 254

Continental shelf, Intergovernmental relations, Oil and gas exploration, Oil pollution, Pipelines, Public lands—mineral resources, Reporting and recordkeeping requirements.

30 CFR Part 550

Administrative practice and procedure, Environmental impact statements, Environmental protection, Federal lands, Government contracts, Oil, Oil and gas exploration, Oil and gas development, Outer continental shelf, Penalties, Pipelines, Public lands–mineral resources, Public lands–right-of-way, Reporting and recordkeeping requirements, Sulphur development and production, Energy, Oil and gas reserves,

Natural gas, Natural resources, Continental shelf, Offshore structures, Petroleum, Bonds, Surety bonds.

February 18, 2015
Dated

/s/
Janice M. Schneider
Assistant Secretary
Land and Minerals Management

For the reasons stated in the preamble, BOEM and BSEE amend 30 CFR Parts 250, 254, and 550 as follows:

TITLE 30—Mineral Resources

CHAPTER II—BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, DEPARTMENT OF THE INTERIOR

PART 250—OIL AND GAS AND SULPHUR OPERATIONS IN THE OUTER CONTINENTAL SHELF

1. The authority citation for 30 CFR Part 250 is revised to read as follows:

Authority: 30 U.S.C. 1751, 31 U.S.C. 9701, 33 U.S.C. 1321(j)(1)(C), 43 U.S.C. 1334.

2. Amend § 250.105 by:

a. Revising the definition of "District Manager" and

b. Adding new definitions for "Arctic OCS", "Arctic OCS conditions", "Cap and flow system", "Capping stack", "Containment dome" and "Source control and containment equipment (SCCE)" in alphabetical order, to read as follows:

§ 250.105 Definitions.

* * * * *

Arctic OCS means the Beaufort Sea and Chukchi Sea Planning Areas, as described in the Proposed Final OCS Oil and Gas Leasing Program for 2012-2017 (June 2012).

Arctic OCS conditions means, for the purposes of this part, the conditions operators can reasonably expect during operations on the Arctic OCS. Such conditions, depending on the time of year, include, but are not limited to: extreme cold, freezing spray, snow, extended periods of low light, strong winds, dense fog, sea ice, strong currents, and

dangerous sea states. Remote location, relative lack of infrastructure, and the existence of subsistence hunting and fishing areas are also characteristic of the Arctic region.

* * * * *

Cap and flow system means an integrated suite of equipment and vessels, including a capping stack and associated flow lines, that, when installed or positioned, is used to control the flow of fluids escaping from the well by conveying the fluids to the surface to a vessel or facility equipped to process the flow of oil, gas, and water. A cap and flow system is a high pressure system that includes the capping stack and piping necessary to convey the flowing fluids through the choke manifold to the surface equipment.

Capping stack means a mechanical device that can be installed on top of a subsea or surface wellhead or blowout preventer to stop the uncontrolled flow of fluids into the environment.

* * * * *

Containment dome means a non-pressurized container that can be used to collect fluids escaping from the well or equipment below the sea surface or from seeps by suspending the device over the discharge or seep location. The containment dome includes all of the equipment necessary to capture and convey fluids to the surface.

* * * * *

District manager means the BSEE officer with authority and responsibility for operations or other designated program functions for a district within a BSEE Region. For activities on the Alaska OCS, any reference in this part to District Manager means the BSEE Regional Supervisor.

* * * * *

Source control and containment equipment (SCCE) means the capping stack, cap and flow system, containment dome, and/or other subsea and surface devices, equipment, and vessels whose collective purpose is to control a spill source and stop the flow of fluids into the environment or to contain fluids escaping into the environment. "Surface devices" refers to equipment mounted or staged on a barge, vessel, or facility to separate, treat, store and/or dispose of fluids conveyed to the surface by the cap and flow system or the containment dome. "Subsea devices" includes, but is not limited to, remotely operated vehicles, anchors, buoyancy equipment, connectors, cameras, controls and other subsea equipment necessary to facilitate the deployment, operation and retrieval of the SCCE. The SCCE does not include a blowout preventer.

* * * * *

3. Amend § 250.188 by adding a new paragraph (c) to read as follows:

§ 250.188 What incidents must I report to BSEE and when must I report them?

* * * * *

(c) On the Arctic OCS, in addition to the requirements of paragraphs (a) and (b) of this section, you must provide to the BSEE inspector on location, if one is present, or to the Regional Supervisor both of the following:

(1) An immediate oral report if any of the following occur:

(i) Any sea ice movement or condition that has the potential to affect your operation or trigger ice management activities;

(ii) The start and termination of ice management activities; or

(iii) Any "kicks" or operational issues that are unexpected and could result in the loss of well control.

(2) Within 24 hours after completing ice management activities, a written report of such activities that conforms to the content requirements in § 250.190.

4. Amend § 250.198 by adding paragraph (h)(89) to read as follows:

§ 250.198 Documents incorporated by reference.

* * * * *

(h) * * *

(89) API RP 2N, Third Edition, "Recommended Practice for Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions;" incorporated by reference at § 250.470(g);

* * * * *

5. Amend § 250.300 by revising paragraphs (b)(1) and (b)(2) to read as follows:

§ 250.300 Pollution prevention

* * * * *

(b)(1) The District Manager may restrict the rate of drilling fluid discharges or prescribe alternative discharge methods. The District Manager may also restrict the use of components which could cause unreasonable degradation to the marine environment. No petroleum-based substances, including diesel fuel, may be added to the drilling mud system without prior approval of the District Manager. For Arctic OCS exploratory drilling, you must capture all petroleum-based mud to prevent its discharge into the marine environment. The Regional Supervisor may also require you to capture, during your Arctic OCS exploratory drilling operations, all water-based mud from operations after completion of the hole for the conductor casing to prevent its discharge into the marine environment, based on various factors including, but not limited to:

(i) The proximity of your exploratory drilling operation to subsistence hunting and fishing locations;

(ii) The extent to which discharged mud may cause marine mammals to alter their migratory patterns in a manner that impedes subsistence users' access to, or use of, those resources, or increases the risk of injury to subsistence users; or

(iii) The extent to which discharged mud may adversely affect marine mammals, fish, or their habitat.

(2) Approval of the method of disposal of drill cuttings, sand, and other well solids shall be obtained from the District Manager. For Arctic OCS exploratory drilling, you must capture all cuttings from operations that utilize petroleum-based mud to prevent their discharge into the marine environment. The Regional Supervisor may also require you to capture, during your Arctic OCS exploratory drilling operations, all cuttings from operations that utilize water-based mud after completion of the hole for the conductor casing to prevent their discharge into the marine environment, based on various factors including, but not limited to:

(i) The proximity of your exploratory drilling operation to subsistence hunting and fishing locations;

(ii) The extent to which discharged cuttings may cause marine mammals to alter their migratory patterns in a manner that impedes subsistence users' access to, or use of, those resources, or increases the risk of injury to subsistence users; or

(iii) The extent to which discharged cuttings may adversely affect marine mammals, fish, or their habitat.

* * * * *

6. Amend § 250.402 by adding a new paragraph (c) to read as follows:

§ 250.402 When and how must I secure a well?

* * * * *

(c) For Arctic OCS exploratory drilling operations, in addition to the requirements of paragraphs (a) and (b) of this section:

(1) If you move your drilling rig off a well prior to completion or permanent abandonment, you must ensure that any equipment left on, near, or in a well bore that has penetrated below the surface casing is positioned in a manner to:

(i) Protect the well head; and

(ii) Prevent or minimize the likelihood of compromising the down-hole integrity of the well or the effectiveness of the well plugs.

(2) In areas of ice scour, you must use a well mudline cellar or an equivalent means of minimizing the risk of damage to the well head.

7. Amend § 250.418 by adding a new paragraph (k) to read as follows:

§ 250.418 What additional information must I submit with my APD?

* * * * *

(k) For Arctic OCS exploratory drilling operations, you must provide the information required by § 250.470.

8. Amend § 250.447 by revising paragraph (b) to read as follows:

§ 250.447 When must I pressure test the BOP system?

* * * * *

(b) Before 14 days have elapsed since your last BOP pressure test, or for Arctic OCS exploratory drilling operations before 7 days have elapsed since your last BOP pressure

test. You must begin to test your BOP system before midnight on the 14th day (or for Arctic OCS exploratory drilling operations, the 7th day) following the conclusion of the previous test. However, the District Manager may require more frequent testing if conditions or BOP performance warrant; and

* * * * *

9. Add new § 250.452 to read as follows:

§ 250.452 What are the real-time monitoring requirements for Arctic OCS exploratory drilling operations?

(a) When conducting exploratory drilling operations on the Arctic OCS, you must have real-time data gathering and monitoring capability to record, store, and transmit data regarding all aspects of:

(1) The BOP control system;

(2) The well's fluid handling systems on the rig; and

(3) The well's downhole conditions as monitored by a downhole sensing system, when such a system is installed.

(b) During well operations, you must immediately transmit the data identified in paragraph (a) of this section to a designated onshore location where it must be stored and monitored by qualified personnel who have the capability for continuous contact with rig personnel and who have the authority, in consultation with rig personnel, to initiate any necessary action in response to abnormal data or events. Prior to well operations, you must notify BSEE where the data will be monitored during those operations, and you must make the data available to BSEE, including in real time, upon request. After well

operations, you must store the data at a designated location for recordkeeping purposes as required in §§ 250.466 and 250.467.

10. Add new undesignated centered heading "ADDITIONAL ARCTIC OCS REQUIREMENTS" and §§ 250.470 through 250.473 in Subpart D to read as follows:

ADDITIONAL ARCTIC OCS REQUIREMENTS

§ 250.470 What additional information must I submit with my APD for Arctic OCS exploratory drilling operations?

In addition to all other applicable requirements included in this part, you must provide with your APD all of the following information pertaining to your proposed Arctic OCS exploratory drilling:

(a) A detailed description of:

(1) The environmental, and meteorologic and oceanic conditions you expect to encounter at the well site(s);

(2) How your equipment, materials, and drilling unit will be prepared for service in the conditions in paragraph (a)(1) of this section, and how your drilling unit will be in compliance with the requirements of § 250.417.

(b) A detailed description of all operations necessary in Arctic OCS Conditions to transition the rig from being under way to conducting drilling operations and from ending drilling operations to being under way, as well as any anticipated repair and maintenance plans for the drilling unit and equipment. The description should include, but not be limited to:

(1) Recovering the subsea equipment, including the marine riser and the lower marine riser package;

(2) Recovering the BOP;

(3) Recovering the auxiliary sub-sea controls and template;

(4) Laying down the drill pipe and securing the drill pipe and marine riser;

(5) Securing the drilling equipment;

(6) Transferring the fluids for transport or disposal;

(7) Securing ancillary equipment like the draw works and lines;

(8) Refueling or transferring fuel;

(9) Offloading waste;

(10) Recovering the ROVs;

(11) Picking up the oil spill prevention booms and equipment; and

(12) Offloading the drilling crew.

(c) Well-specific drilling objectives, timelines, and updated contingency plans for temporary abandonment of the well, including but not limited to the following:

(1) When you will spud the particular well (*i.e.*, begin drilling operations at the well site) identified in the APD;

(2) How long you will take to drill the well;

(3) Anticipated depths and geologic targets, with timelines;

(4) When you expect to set and cement each string of casing;

(5) When and how you would log the well;

(6) Your plans to test the well;

(7) When and how you intend to abandon the well, including specifically addressing your plans for how to move the rig off location and how you will meet the requirements of § 250.402(c);

(8) A description of what equipment and vessels will be involved in the process of temporarily abandoning the well due to ice; and

(9) An explanation of how these elements will be integrated into your overall program.

(d) A detailed description of your weather and ice forecasting capability for all phases of the drilling operation, including:

(1) How you will ensure continuous awareness of potential weather and ice hazards at, and during transition between, wells;

(2) Your plans for managing ice hazards and responding to weather events; and

(3) Verification that you have the capabilities described in your BOEM-approved EP.

(e) A detailed description of how you will comply with the requirements of § 250.472.

(f) A statement that you own, or have a contract with a provider for, source control and containment equipment (SCCE) that is capable of controlling and/or containing a worst case discharge, as described in your BOEM-approved EP, when proposing to use a MODU to conduct exploratory drilling operations on the Arctic OCS. The following information must be included in your SCCE submittal:

(1) A detailed description of your or your contractor's SCCE capabilities, including operating assumptions and limitations, reflecting that you have access to, and the ability to deploy in accordance with § 250.471, all SCCE necessary to regain control of the well, including the ability to evaluate the performance of the well design to determine how a full shut-in can be achieved without having reservoir fluids discharged into the environment;

(2) An inventory of the local and regional SCCE, supplies, and services that you own or for which you have a contract with a provider. You must identify each supplier of such equipment and services and provide their locations and telephone numbers;

(3) Where applicable, proof of contracts or membership agreements with cooperatives, service providers, or other contractors that will provide you with the necessary SCCE or related supplies and services if you do not possess them. The contract or membership agreement must include provisions for ensuring the availability of the personnel and/or equipment on a 24-hour per day basis while you are drilling below or working below the surface casing;

(4) A detailed description of the procedures for inspecting, testing, and maintaining your SCCE; and

(5) A detailed description of your plan to ensure that all members of your operating team who are responsible for operating the SCCE have received the necessary training to deploy and operate such equipment in Arctic OCS Conditions and demonstrate ongoing proficiency in source control operations. You must also identify and include the dates of prior and planned training.

(g) Where it does not conflict with other requirements of this subpart, and except as provided below, you must comply with the requirements of API RP 2N, Third Edition "Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions" (incorporated by reference as specified in § 250.198), and provide a detailed description of how you will utilize the best practices included in API RP 2N during your exploratory drilling operations. You are not required to incorporate the following sections of API RP 2N into your drilling operations:

(1) Sections 6.6.3 through 6.6.4;

(2) The foundation recommendations in Section 8.4;

(3) Section 9.6;

(4) The recommendations for permanently moored systems in Section 9.7;

(5) The recommendations for pile foundations in Section 9.10;

(6) Section 12;

(7) Section 13.2.1;

(8) Sections 13.8.1.1, 13.8.2.1, 13.8.2.2, 13.8.2.4 through 13.8.2.7;

(9) Sections 13.9.1, 13.9.2, 13.9.4 through 13.9.8;

(10) Sections 14 through 16; and

(11) Section 18.

§ 250.471 What are the requirements for Arctic OCS source control and containment?

You must meet the following requirements for all exploration wells drilled on the Arctic OCS:

(a) If you use a MODU when drilling below or working below the surface casing, you must have access to:

(1) A capping stack, positioned to ensure that it will arrive at the well location within 24 hours after a loss of well control and can be deployed as directed by the Regional Supervisor pursuant to paragraph (h) of this section;

(2) A cap and flow system, positioned to ensure that it will arrive at the well location within 7 days after a loss of well control and can be deployed as directed by the Regional Supervisor pursuant to paragraph (h) of this section. The cap and flow system must be

designed to capture at least the amount of hydrocarbons equivalent to the calculated worst case discharge rate referenced in your BOEM-approved EP; and

(3) A containment dome, positioned to ensure that it will arrive at the well location within 7 days after a loss of well control and can be deployed as directed by the Regional Supervisor pursuant to paragraph (g) of this section. The containment dome must have the capacity to pump fluids without relying on buoyancy.

(b) You must conduct a monthly stump test of dry-stored capping stacks. If you use a pre-positioned capping stack, you must conduct a stump test prior to each installation on each well.

(c) As required by § 250.465(a), if you propose to change your well design, you must submit an APM. For Arctic OCS operations, your APM must include a reevaluation of your SCCE capabilities for any new WCD rate, and a demonstration that your SCCE capabilities will meet the criteria in § 250.470(f) under the changed well design.

(d) You must conduct tests or exercises of your SCCE, including deployment of your SCCE, when directed by the Regional Supervisor.

(e) You must maintain records pertaining to testing, inspection, and maintenance of your SCCE for at least 10 years and make the records available to any authorized BSEE representative upon request.

(f) You must maintain records pertaining to the use of your SCCE during testing, training, and deployment activities for at least 3 years and make the records available to any authorized BSEE representative upon request.

(g) Upon a loss of well control, you must initiate transit of all SCCE identified in paragraph (a) of this section to the well.

(h) You must deploy and use SCCE when directed by the Regional Supervisor.

§ 250.472 What are the relief rig requirements for the Arctic OCS?

(a) In the event of a loss of well control, the Regional Supervisor may direct you to drill a relief well using the relief rig described in your APD. Your relief rig must comply with all other requirements of this part for drilling operations, and it must be able to drill a relief well under anticipated Arctic OCS Conditions.

(b) When you are drilling below or working below the surface casing during Arctic OCS exploratory drilling operations, you must have access to a relief rig, different from your primary drilling rig, staged in a location such that it can arrive on site, drill a relief well, kill and abandon the original well, and abandon the relief well prior to expected seasonal ice encroachment at the drill site, but no later than 45 days after the loss of well control.

(c) Operators may request approval of alternative compliance measures to the relief rig requirement in accordance with § 250.141.

§ 250.473 What must I do to protect health, safety, property, and the environment while operating on the Arctic OCS?

In addition to the requirements set forth in § 250.107, when conducting exploratory drilling operations on the Arctic OCS, you must protect health, safety, property, and the environment by using the following:

(a) Equipment and materials that are rated or de-rated for service under conditions that can be reasonably expected during your operations; and

(b) Measures to address human factors associated with weather conditions that can be reasonably expected during your operations including, but not limited to, provision of

proper attire and equipment, construction of protected work spaces, and management of shifts.

11. Amend § 250.1920 by:

a. Adding a new last sentence to paragraphs (b)(5), (c), and (d); and

b. Adding new paragraphs (e) and (f) to read as follows:

§ 250.1920 What are the auditing requirements for my SEMS program?

* * * * *

(b) * * *

(5) * * * For exploratory drilling operations taking place on the Arctic OCS, you must conduct an audit, consisting of an onshore portion and an offshore portion, including all related infrastructure, once per year for every year in which drilling is conducted.

* * * * *

(c) * * * For exploratory drilling operations taking place on the Arctic OCS, you must submit an audit report of the audit findings, observations, deficiencies and conclusions for the onshore portion of your audit no later than March 1 in any year in which you plan to drill, and for the offshore portion of your audit, within 30 days of the close of the audit.

(d) * * * For exploratory drilling operations taking place on the Arctic OCS, you must provide BSEE with a copy of your CAP for addressing deficiencies or nonconformities identified in the onshore portion of the audit no later than March 1 in any year in which you plan to drill, and for the offshore portion of your audit, within 30 days of the close of the audit.

(e) For exploratory drilling operations taking place on the Arctic OCS, during the offshore portion of each audit, 100 percent of the facilities operated must be audited while drilling activities are underway. The offshore portion of the audit for each facility must be started and closed within 30 days after the first spudding of the well or entry into an existing wellbore for any purpose from that facility.

(f) For exploratory drilling operations taking place on the Arctic OCS, if BSEE determines that the CAP or progress toward implementing the CAP is not satisfactory, BSEE may order you to shut down all or part of your operations.

PART 254 – OIL-SPILL RESPONSE REQUIREMENTS FOR FACILITIES LOCATED SEAWARD OF THE COAST LINE

12. The authority citation for 30 CFR Part 254 continues to read as follows:

Authority: 33 U.S.C. 1321.

13. Amend § 254.6 by:

a. Revising the definition of "Adverse weather conditions,"

b. Adding a new definition for "Arctic OCS" in alphabetical order, and

c. Adding a new definition for "Ice intervention practices" in alphabetical order.

§ 254.6 Definitions.

* * * * *

Adverse weather conditions means, for the purposes of this part, weather conditions found in the operating area that make it difficult for response equipment and personnel to clean up or remove spilled oil or hazardous substances. These conditions include, but are not limited to: fog, inhospitable water and air temperatures, wind, sea ice, extreme cold, freezing spray, snow, currents, sea states, and extended periods of low light. Adverse

weather conditions do not refer to conditions under which it would be dangerous or impossible to respond to a spill, such as a hurricane.

Arctic OCS means the Beaufort Sea and Chukchi Sea Planning Areas, as described in the Proposed Final OCS Oil and Gas Leasing Program for 2012-2017 (June 2012).

* * * * *

Ice intervention practices means the equipment, vessels, and procedures used to increase oil encounter rates and the effectiveness of spill response techniques and equipment when sea ice is present.

* * * * *

14. Add § 254.55 to Subpart D to read as follows:

§ 254.55 Spill response plans for facilities located in Alaska State waters seaward of the coast line in the Chukchi and Beaufort Seas.

Response plans for facilities conducting exploratory drilling operations from a MODU seaward of the coast line in Alaska State waters in the Chukchi and Beaufort Seas must follow the requirements contained within subpart E of this part, in addition to the other requirements of this subpart. Such response plans must address how the source control procedures selected to comply with State law will be integrated into the planning, training, and exercise requirements of §§ 254.70(a), 254.90(a), and 254.90(c) in the event that the proposed operations do not incorporate the capping stack, cap and flow system, containment dome, and/or other similar subsea and surface devices and equipment and vessels referenced in those sections.

15. Add new subpart E to read as follows:

Subpart E—Oil-Spill Response Requirements for Facilities Located on the Arctic OCS

Sec.

254.65 Purpose.

254.66 through 254.69 [Reserved]

254.70 What are the additional requirements for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

254.71 through 254.79 [Reserved]

254.80 What additional information must I include in the "Emergency response action plan" section for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

254.81 through 254.89 [Reserved]

254.90 What are the additional requirements for exercises of your response personnel and equipment for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

Subpart E—Oil-Spill Response Requirements for Facilities Located on the Arctic OCS

§ 254.65 Purpose.

This subpart describes the additional requirements for preparing spill response plans and maintaining oil spill preparedness for facilities conducting exploratory drilling operations from a MODU on the Arctic OCS.

§§ 254.66 through 254.69 [Reserved]

§ 254.70 What are the additional requirements for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

In addition to meeting the applicable requirements of this part, your response plan must:

(a) Describe how the relevant personnel, equipment, materials, and support vessels associated with the capping stack, cap and flow system, containment dome, and other similar subsea and surface devices and equipment and vessels will be integrated into oil spill response incident action planning;

(b) Describe how you will address human factors, such as cold stress and cold related conditions, associated with oil spill response activities in adverse weather conditions and their impacts on decision-making and health and safety; and

(c) Undergo plan-holder review prior to handling, storing, or transporting oil in connection with seasonal exploratory drilling activities, and all resulting modifications must be submitted to the Regional Supervisor. If this review does not result in modifications, you must inform the Regional Supervisor in writing that there are no changes. The requirements of this subsection are in lieu of the requirements in § 254.30(a).

§§ 254.71 through 254.79 [Reserved]

§ 254.80 What additional information must I include in the "Emergency response action plan" section for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

In addition to the requirements in § 254.23, you must include the following information in the emergency response action plan section of your response plan:

(a) A description of your ice intervention practices and how they will improve the effectiveness of the oil spill response options and strategies that are listed in your OSRP

in the presence of sea ice. When developing the ice intervention practices for your oil spill response plan, you must consider, at a minimum, the use of specialized tactics, modified response equipment, ice management assist vessels, and technologies for the identification, tracking, containment and removal of oil in ice.

(b) On areas of the Arctic OCS where a planned shore-based response would not satisfy § 254.1(a):

(1) A list of all resources required to ensure an effective offshore-based response capable of operating in adverse weather conditions. This list must include a description of how you will ensure the shortest possible transit times, including but not limited to establishing an offshore resource management capability (*e.g.*, sea-based staging, maintenance, and berthing logistics); and

(2) A list and description of logistics resupply chains, including waste management, that effectively factor in the remote and limited infrastructure that exists in the Arctic and ensure you can adequately sustain all oil spill response activities for the duration of the response. The components of the logistics supply chain include, but are not limited to:

(i) Personnel and equipment transport services;

(ii) Airfields and types of aircraft that can be supported;

(iii) Capabilities to mobilize supplies (*e.g.*, response equipment, fuel, food, fresh water) and personnel to the response sites;

(iv) Onshore staging areas, storage areas that may be used en route to staging areas, and camp facilities to support response personnel conducting offshore, nearshore and shoreline response; and

(v) Management of recovered fluid and contaminated debris and response materials (*e.g.*, oiled sorbents), as well as waste streams generated at offshore and on-shore support facilities (*e.g.*, sewage, food, and medical).

(c) A description of the system you will use to maintain real-time location tracking for all response resources while operating, transiting, or staging/maintaining such resources during a spill response.

§§ 254.81 through 254.89 [Reserved]

§ 254.90 What are the additional requirements for exercises of your response personnel and equipment for facilities conducting exploratory drilling from a MODU on the Arctic OCS?

In addition to the requirements in § 254.42, the following requirements apply to exercises for your response personnel and equipment for facilities conducting exploratory drilling from a MODU on the Arctic OCS:

(a) You must incorporate the personnel, materials, and equipment identified in § 254.70(a), the safe working practices identified in § 254.70(b), the ice intervention practices described in § 254.80(a), the offshore-based response requirements in § 254.80(b), and the resource tracking requirements in § 254.80(c) into your spill-response training and exercise activities.

(b) For each season in which you plan to conduct exploratory drilling operations from a MODU on the Arctic OCS, you must notify the Regional Supervisor 60 days prior to handling, storing, or transporting oil.

(c) After the Regional Supervisor receives notice pursuant to § 254.90(b), the Regional Supervisor may direct you to deploy and operate your spill response equipment

and/or your capping stack, cap and flow system, and containment dome, and other similar subsea and surface devices and equipment and vessels, as part of announced or unannounced exercises or compliance inspections. For the purposes of this section, spill response equipment does not include the use of blowout preventers, diverters, heavy weight mud to kill the well, relief wells, or other similar conventional well control options.

CHAPTER V—BUREAU OF OCEAN ENERGY MANAGEMENT, DEPARTMENT OF THE INTERIOR

PART 550—OIL AND GAS AND SULPHUR OPERATIONS IN THE OUTER CONTINENTAL SHELF

16. The authority citation for 30 CFR Part 550 continues to read as follows:

Authority: 30 U.S.C. 1751; 31 U.S.C. 9701; 43 U.S.C. 1334

17. Amend § 550.105 by adding new definitions for "Arctic OCS" and "Arctic OCS conditions" in alphabetical order to read as follows:

§ 550.105 Definitions.

* * * * *

Arctic OCS means the Beaufort Sea and Chukchi Sea Planning Areas, as described in the Proposed Final OCS Oil and Gas Leasing Program for 2012-2017 (June 2012).

Arctic OCS conditions means, for the purposes of this part, the conditions operators can reasonably expect during operations on the Arctic OCS. Such conditions, depending on the time of year, include, but are not limited to: extreme cold, freezing spray, snow, extended periods of low light, strong winds, dense fog, sea ice, strong currents, and

dangerous sea states. Remote location, relative lack of infrastructure, and the existence of subsistence hunting and fishing areas are also characteristic of the Arctic region.

* * * * *

18. Amend § 550.200 paragraph (a) by adding the term "IOP" in alphabetical order:

§ 550.200 Definitions.

* * * * *

(a) * * *

IOP means Integrated Operations Plan.

* * * * *

19. Add a new § 550.204 to read as follows:

§ 550.204 When must I submit my IOP for proposed Arctic exploratory drilling operations and what must the IOP include?

If you propose exploratory drilling activities on the Arctic OCS, you must submit an Integrated Operations Plan (IOP) to the Regional Supervisor at least 90 days prior to filing your EP. Your IOP must describe how your exploratory drilling program will be designed and conducted in an integrated manner suitable for Arctic OCS Conditions and include the following information:

(a) Information describing how all vessels and equipment will be designed, built, and/or modified to account for Arctic OCS Conditions;

(b) A schedule of your exploratory drilling program, including contractor work on critical components of your program;

(c) A description of your mobilization and demobilization operations, including tow plans suitable for Arctic OCS Conditions, as well as your general maintenance schedule for vessels and equipment;

(d) A description of your exploratory drilling program objectives and timelines for each objective, including general plans for abandonment of the well(s), such as:

(1) Contingency plans for temporary abandonment in the event of ice encroachment at the drill site;

(2) Plans for permanent abandonment; and

(3) Plans for temporary seasonal abandonment;

(e) A description of your weather and ice forecasting capabilities for all phases of the exploration program, including a description of how you would respond to and manage ice hazards and weather events;

(f) A description of work to be performed by contractors supporting your exploration drilling program (including mobilization and demobilization), including:

(1) How such work will be designed or modified to account for Arctic OCS Conditions; and

(2) Your concepts for contractor management, oversight, and risk management.

(g) A description of how you will ensure operational safety while working in Arctic OCS Conditions, including but not limited to:

(1) The safety principles that you intend to apply to yourself and your contractors;

(2) The accountability structure within your organization for implementing such principles;

(3) How you will communicate such principles to your employees and contractors; and

(4) How you will determine successful implementation of such principles.

(h) Information regarding your preparations and plans for staging of oil spill response assets;

(i) A description of your efforts to minimize impacts of your exploratory drilling operations on local community infrastructure, including but not limited to housing, energy supplies, and services; and

(j) A description of whether and to what extent your project will rely on local community workforce and spill cleanup response capacity.

20. Revise § 550.206 to read as follows:

§550.206 How do I submit the IOP, EP, DPP, or DOCD?

(a) *Number of copies.* When you submit an IOP, EP, DPP, or DOCD to BOEM, you must provide:

(1) Four copies that contain all required information (proprietary copies);

(2) Eight copies for public distribution (public information copies) that omit information that you assert is exempt from disclosure under the Freedom of Information Act (FOIA) (5 U.S.C. 552) and the implementing regulations (43 CFR part 2); and

(3) Any additional copies that may be necessary to facilitate review of the IOP, EP, DPP, or DOCD by certain affected States and other reviewing entities.

(b) *Electronic submission.* You may submit part or all of your IOP, EP, DPP, or DOCD and its accompanying information electronically. If you prefer to submit your IOP, EP, DPP, or DOCD electronically, ask the Regional Supervisor for further guidance.

(c) *Withdrawal after submission.* You may withdraw your proposed IOP, EP, DPP, or DOCD at any time for any reason. Notify the appropriate BOEM OCS Region if you do.

21. Amend § 550.220 by:

a. Revising paragraph (a), and

b. Adding a new paragraph (c).

§ 550.220 If I propose activities in the Alaska OCS Region, what planning information must accompany the EP?

* * * * *

(a) *Emergency Plans*. A description of your emergency plans to respond to a fire, explosion, personnel evacuation, or loss of well control, as well as a loss or disablement of a drilling unit, and loss of or damage to a support vessel, offshore vehicle, or aircraft.

* * * * *

(c) If you propose exploration activities on the Arctic OCS, the following planning information must also accompany your EP:

(1) *Suitability for Arctic OCS conditions*. A description of how your exploratory drilling activities will be designed and conducted in a manner suitable for Arctic OCS conditions and how such activities will be managed and overseen as an integrated endeavor.

(2) *Ice and weather management*. A description of your weather and ice forecasting and management plans for all phases of your exploratory drilling activities, including:

(i) A description of how you will respond to and manage ice hazards and weather events;

(ii) Your ice and weather alert procedures;

(iii) Your procedures and thresholds for activating your ice and weather management system(s); and

(iv) Confirmation that you will operate ice and weather management and alert systems continuously throughout the planned operations, including mobilization and demobilization operations to and from the Arctic OCS.

(3) *Source control and containment equipment capabilities.* A general description of how you will comply with § 250.471 of this title.

(4) *Deployment of a relief well rig.* A general description of how you will comply with § 250.472 of this title, including a description of the relief well rig, the anticipated staging area of the relief well rig, an estimate of the time it would take for the relief well rig to arrive at the site of a loss of well control, how you would drill a relief well if necessary, and the approximate timeframe to complete relief well operations.

(5) *Resource-sharing.* Any agreements you have with third parties for the sharing of assets or the provision of mutual aid in the event of an oil spill or other emergency.

(6) *Anticipated end of seasonal operations dates.* Your projected end of season dates, and the information used to identify those dates, for:

(i) The completion of on-site operations, which is contingent upon your capability in terms of equipment and procedures to manage and mitigate risks associated with Arctic OCS Conditions; and

(ii) The termination of drilling operations into zones capable of flowing liquid hydrocarbons to the surface consistent with the relief rig planning requirements under §

250.472 of this title and with your estimated timeframe under paragraph (c)(4) of this section for completion of relief well operations.