

DEPARTMENT OF THE INTERIOR**Bureau of Safety and Environmental Enforcement****30 CFR Part 250**[Docket ID: BSEE-2021-0003; EEEE500000
223E1700D2 ET1SF0000.EAQ000]**RIN 1014-AA49****Oil and Gas and Sulfur Operations in the Outer Continental Shelf—High Pressure High Temperature and Subpart B Revisions****AGENCY:** Bureau of Safety and Environmental Enforcement, Interior.**ACTION:** Proposed rule.

SUMMARY: The Bureau of Safety and Environmental Enforcement (BSEE) is proposing to add requirements for new or unusual technology, including equipment used in high pressure high temperature (HPHT) environments, to revise and reorganize the information submission requirements for a project's Conceptual Plans and Deepwater Operations Plans (DWOP), and to require independent third parties to review certain information prior to submission to BSEE. This proposed rule would improve operational and environmental safety and human health while providing consistency and clarity to industry regarding the equipment and operational requirements necessary for BSEE review and approval of projects using new or unusual technology.

DATES: Send your comments on this proposed rule to BSEE on or before July 15, 2022. BSEE is not obligated to consider or include in the

Administrative Record for the final rule comments that we receive after the close of the comment period (see **DATES**) or comments delivered to an address other than those listed below (see **ADDRESSES**).

Information Collection Requirements: If you wish to comment on the information collection requirements in this proposed rule, please note that the Office of Management and Budget (OMB) is required to make a decision concerning the collection of information contained in this proposed rule between 30 and 60 days after publication of this proposed rule in the **Federal Register**. Therefore, comments should be submitted to OMB by June 15, 2022. The deadline for comments on the information collection burden does not affect the deadline for the public to comment to BSEE on the proposed regulations.

ADDRESSES: You may submit comments on the rulemaking by any of the following methods. Please use the

Regulation Identifier Number (RIN) 1014-AA49 as an identifier in your message. See also Public Availability of Comments under Procedural Matters.

- *Federal eRulemaking Portal:*

<https://www.regulations.gov>. In the entry titled Enter Keyword or ID, enter BSEE-2021-0003 then click search. Follow the instructions to submit public comments and view supporting and related materials available for this rulemaking. BSEE may post all submitted comments.

- *Mail or Hand-Carry Comments to BSEE:*

Attention: Regulations and Standards Branch, 45600 Woodland Road, VAE-ORP, Sterling VA 20166. Please reference RIN 1014-AA49, "Oil and Gas and Sulfur Operations on the Outer Continental Shelf—High Pressure High Temperature and Subpart B Revisions," in your comments, and include your name and return address.

- All API standards that are safety-related and that are incorporated into Federal regulations are available to the public for free viewing online in the Incorporation by Reference Reading Room or for purchase on API's website at: <https://publications.api.org> and <https://www.api.org/products-and-services/standards/purchase>, respectively.

- NACE International (NACE) standards can be accessed through the American National Standards Institute (ANSI) Incorporated by Reference (IBR) Portal. The website can be accessed at: <https://ibr.ansi.org>.

- For the convenience of the viewing public who may not wish to purchase or view the incorporated documents online, the documents may be inspected at BSEE's offices at: 1919 Smith Street, Suite 14042, Houston, Texas 77002 (phone: 1-844-259-4779), or 45600 Woodland Road, Sterling, Virginia 20166 (email: regs@bsee.gov), by appointment only.

- Send comments on the information collection in this rule to: Interior Desk Officer 1014-0028, Office of Management and Budget; 202-395-5806 (fax); email: oira_submission@omb.eop.gov. Please send a copy to BSEE at regs@bsee.gov.

Public Availability of Comments: Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. In order for BSEE to withhold from disclosure your personal identifying information, you must identify any information contained in your comment submittal that, if released, would

constitute a clearly unwarranted invasion of your personal privacy. You must also briefly describe any possible harmful consequence(s) of the disclosure of information, such as embarrassment, injury, or other harm. While you may request that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

FOR FURTHER INFORMATION CONTACT: For questions, contact Kirk Malstrom, Regulations and Standards Branch, (202) 258-1518, or by email: regs@bsee.gov.

SUPPLEMENTARY INFORMATION:**Executive Summary**

Through this rulemaking, BSEE would improve operational safety and human health and environmental protections while providing industry with clarity and consistency regarding the submissions necessary for BSEE to review and approve operations using new or unusual technology. BSEE considers new or unusual technology to include equipment or procedures that have not been used previously or extensively under the anticipated operating conditions, or that have not been used previously in a particular BSEE Outer Continental Shelf (OCS) Region, or that have operating characteristics outside the performance parameters established in 30 CFR part 250. Currently, operations and equipment used in HPHT environments are relatively new on the United States OCS. In general, an HPHT environment is present when well conditions have pressures greater than 15,000 pounds per square inch absolute (psia) or have a temperature greater than 350 degrees Fahrenheit. Historically, oilfield equipment has not been designed to withstand these high pressures and temperatures. Working in an HPHT environment also increases the operational complexity because HPHT associated operations require the use of equipment that exists at the limits of current technology and without a long operational history. Due to limited industry experience in HPHT environments, there are few standards that directly address HPHT equipment and operations. Currently, BSEE carefully reviews HPHT projects on a case-by-case basis. To date, BSEE has received several applications for projects in an HPHT environment and anticipates HPHT project interest to increase due to equipment technological advancements and industry capabilities to develop resources in these environments.

For new or unusual technology projects, including HPHT projects, BSEE regulations currently:

- Require submission of information in a sequence that is not conducive to new or unusual technology projects because these projects require more BSEE review and approval upfront;
- Lack specific equipment requirements because the technology is new and there are few applicable industry standards; and
- Do not require submission of information in a way that best facilitates BSEE review.

To address these issues, this rulemaking would:

- Require submission of information in a sequence that provides both operators and BSEE the ability to evaluate whether a new or unusual technology project is economically and operationally feasible;
- Add specific equipment requirements, particularly for barriers, through new regulations and incorporation of industry standards; and
- Require Independent Third Party (I3P) review of operator submissions, in certain cases, or provide BSEE with the ability to require I3P review, to ensure project viability and safety.

Currently, the DWOP process requires information to be submitted in two distinct phases: The Conceptual Plan phase and the DWOP approval phase. This rulemaking would revise the DWOP process to establish three stand-alone conceptual plans to address deepwater development projects, subsea tieback development technology, and new or unusual technology. The three proposed Conceptual Plans would be a Project Conceptual Plan, a New or Unusual Technology Conceptual Plan, or a New or Unusual Technology Barrier Conceptual Plan. A Project Conceptual Plan would be required for any project planned in water depths greater than 1,000 feet or that will include the use of subsea tieback development technology regardless of water depth. A New or Unusual Technology Conceptual Plan would be required for any project or system involving new or unusual technology equipment or procedures. A New or Unusual Technology Barrier Conceptual Plan would be required for any project or system involving new or unusual technology equipment or procedures identified as a primary or secondary barrier to isolate hydrocarbons and/or pressure from people and the environment. An operator must submit the applicable Conceptual Plan(s) and may be required to submit multiple Conceptual Plans based on specifics of the proposed project. Equipment or procedures that

would be used in an HPHT environment would be considered new or unusual technology, and, for operations involving such equipment or procedures, an operator would be required to submit either a New or Unusual Technology Conceptual Plan or a New or Unusual Technology Barrier Conceptual Plan. The information specific to HPHT projects submitted in the applicable Conceptual Plan(s) or in the DWOP would be evaluated for adequacy prior to approval. Creation of the new Conceptual Plans and a new timing requirement—whereby these Conceptual Plans must be approved before any associated applicable permit (e.g., pipeline, platform, Application for Permit to Drill (APD), Application for Permit to Modify (APM)) approval—would provide both operators and BSEE the ability to evaluate whether a new or unusual technology project is economically and operationally feasible earlier in the project planning process, before permit approval.

In addition, 30 CFR part 250, subpart B and the DWOP Process would be revised to incorporate the BSEE Barrier Concept into the requirements, including for new or unusual technology projects. The Barrier Concept is a holistic approach to the barrier system. BSEE considers a barrier or barrier system to be any engineered equipment, materials, component, or assembly that is intended to prevent the release of a hydrocarbon or other pressure source(s) that would cause harm to people or the environment. This proposed rulemaking would define, in subpart B, the types of equipment that BSEE considers to be barriers and how barriers must be used. Portions of the Barrier Concept would also be included in the DWOP Process under the New or Unusual Technology Barrier Conceptual Plan as a means of ensuring that new or unusual technology projects include sufficient barriers, which will enhance protections for people and the environment. This rulemaking would incorporate into regulations the existing BSEE policy on the Barrier Concept discussed in NTLs 2009-G36, *Using Alternate Compliance in Safety Systems for Subsea Production Operations*, 2019-G02, *Guidance for Information Submissions Regarding Proposed High Pressure and/or High Temperature (HPHT) Well Design, Completion, and Intervention Operations*, and 2019-G03, *Guidance for Information Submissions Regarding Site Specific and Non-Site Specific HPHT Equipment Design Verification Analysis and Design Validation Testing*.

Furthermore, the DWOP Process would be revised to require I3P review

of equipment or procedures identified in a New or Unusual Technology Barrier Conceptual Plan and allow BSEE to require an operator to use an I3P to review certain equipment or procedures identified in a New or Unusual Technology Conceptual Plan.

Independent third parties have been utilized as a longstanding industry practice to support certifications and verifications that ensure project viability and safety. I3P review provides an additional review in circumstances where proposed equipment or processes may be technically complex and require a high degree of specialized engineering knowledge, expertise, and experience to evaluate.

The Principal Deputy Assistant Secretary—Lands and Minerals Management takes this action pursuant to delegated authority.

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I. Background

A. BSEE Statutory and Regulatory Authority and Responsibilities

BSEE derives its authority primarily from the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1331–1356a. Congress enacted OCSLA in 1953, authorizing the Secretary of the Interior (Secretary) to lease the OCS for mineral development, and to regulate oil and gas exploration, development, and production operations on the OCS. The Secretary has delegated authority to perform certain of these functions to BSEE.

To carry out its responsibilities, BSEE regulates offshore oil and gas operations to enhance the safety of exploration for and development of oil and gas on the OCS, to ensure that those operations protect the environment, and to implement advancements in technology. BSEE also conducts onsite inspections to assure compliance with regulations, lease terms, and approved plans and permits. Detailed information concerning BSEE's regulations and guidance to the offshore oil and gas industry may be found on BSEE's website at: <https://www.bsee.gov/guidance-and-regulations>.

BSEE's regulatory program covers a wide range of OCS facilities and

activities, including drilling, completion, workover, production, pipeline, and decommissioning operations. Drilling, completion, workover, and decommissioning operations are types of well operations that offshore operators¹ perform throughout the OCS. This rulemaking is applicable to these listed operational activities that involve deepwater development projects, subsea tieback development technology, projects or systems that use new or unusual technology, or barriers.

B. Purpose and Summary of the Rulemaking

The purpose of this rulemaking is to improve the requirements and information submission process for oil and gas operations in deepwater and for new or unusual technology equipment or procedures. The proposed regulations would achieve this purpose by adding requirements for new or unusual technology projects, including HPHT projects, by reorganizing the deepwater project information submission process, and by requiring I3P review of certain submissions.

Together, these regulations would ensure that operators consider and submit sufficient information to BSEE at an early stage in the process so that the operator and BSEE can adequately address any issues concerning equipment selection, design, and fabrication.

C. Summary of Documents Incorporated by Reference

This rulemaking would update one document currently incorporated by reference to a newer edition and would apply three documents already incorporated by reference to additional workover and completion operations. A brief summary of the proposed changes, based on the descriptions in each standard or specification, is provided in the following text.

American National Standards Institute (ANSI)/API Specification (Spec.) 11D1, Packers and Bridge Plugs, Third Edition, April 2015.

This specification provides minimum requirements and guidelines for packers and bridge plugs used downhole in oil and gas operations. The performance of this equipment is often critical to maintaining well control during drilling and production operations. This

¹ BSEE's regulations at 30 CFR part 250 generally apply to "a lessee, the owner or holder of operating rights, a designated operator or agent of the lessee(s). . ." 30 CFR 250.105 (definition of "you"). For convenience, this preamble will refer to these regulated entities as "operators" unless otherwise indicated.

specification provides requirements for the design, design verification and validation, materials, documentation and data control, repair, shipment, and storage of packers and bridge plugs.

ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, October 2010; Addendum 1, November 2011; Errata 2, November 2011; Addendum 2, November 2012; Addendum 3, March 2013; Errata 3, June 2013; Errata 4, August 2013; Errata 5, November 2013; Errata 6, March 2014; Errata 7, December 2014; Errata 8, February 2016; Addendum 4, June 2016; Errata 9, June 2016; Errata 10, August 2016.

This specification defines requirements for the design of valves, wellheads and Christmas tree equipment that is used during drilling and production operations. This specification includes requirements related to dimensional and functional interchangeability, design, materials, testing, inspection, welding, marking, handling, storing, shipment, purchasing, repair and remanufacture.

ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment, Second Edition, May 2011; Addendum 1, September 2015; Errata, September 2011; Errata 2, January 2012; Errata 3, June 2013; Errata 4, July 2013; Errata 5, October 2013; Errata 6, August 2015; Errata 7, October 2015.

This specification provides requirements for subsea wellheads, mudline wellheads, and drill-through mudline wellheads, as well as vertical and horizontal subsea trees. These devices are located on the seafloor, and, therefore, ensuring the safe and reliable performance of this equipment is extremely important. This specification identifies the tooling necessary to handle, test and install the equipment. It also specifies the parameters for design, material, welding, quality control (including factory acceptance testing), marking, storing, and shipping for both individual sub-assemblies (used to build complete subsea tree assemblies) and complete subsea tree assemblies.

NACE Standard MR0175-2003, Standard Material Requirements, Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments, Revised January 2003.

This standard describes general principles and provides requirements and recommendations for the selection and qualification of metallic materials for equipment used in oil and gas production, and in natural-gas sweetening plants, in hydrogen sulfide

(H₂S)-containing environments, where the failure of such equipment can pose a risk to the health and safety of the public and personnel or to the environment. Application of this standard can help avoid costly corrosion damage to equipment. This standard supplements, but does not replace, the material requirements contained in applicable design codes, standards, or regulations. This standard also addresses all mechanisms of cracking that can be caused by H₂S, including sulfide stress cracking, stress corrosion cracking, hydrogen-induced cracking and stepwise cracking, stress-oriented hydrogen-induced cracking, soft zone cracking, and galvanically induced hydrogen stress cracking. This standard does not include, and is not intended to include design specifications.

The American Petroleum Institute (API) provides free online public access to view read-only copies of its key industry standards, including a broad range of technical standards. All API standards that are safety-related and that are incorporated into Federal regulations are available to the public for free viewing online in the Incorporation by Reference Reading Room on API's website at: <https://publications.api.org>.² In addition to the free availability of these standards on API's website, hardcopies and printable versions are available for purchase from API. The API website address to purchase standards is: <https://www.api.org/products-and-services/standards/purchase>.

NACE International (NACE) standards can be accessed through the American National Standards Institute (ANSI). The ANSI Incorporated by Reference (IBR) Portal provides access to many standards that have been incorporated by reference in the U.S. Code of Federal Regulations (CFR). These standards incorporated by the U.S. government in rulemakings are offered at no cost in "read only" format and are presented for online reading. However, there are no print or download options. The website can be accessed at: <https://ibr.ansi.org>.

For the convenience of the viewing public who may not wish to purchase or view the incorporated documents online, the documents may be inspected at BSEE's offices at: 1919 Smith Street, Suite 14042, Houston, Texas 77002 (phone: 1-844-259-4779), or 45600

² BSEE's regulations at 30 CFR part 250 generally apply to "a lessee, the owner or holder of operating rights, a designated operator or agent of the lessee(s). . ." 30 CFR 250.105 (definition of "you"). For convenience, this preamble will refer to these regulated entities as "operators" unless otherwise indicated.

Woodland Road, Sterling, Virginia 20166 (email: regs@bsee.gov), by appointment only. An appointment is required to ensure personnel are available to accommodate the request and to account for competing agency obligations or concerns, including those related to public health and natural disasters. Additional information on where these documents can be inspected or purchased can be found at 30 CFR 250.198, *Documents incorporated by reference*, or by sending a request by email to regs@bsee.gov.

II. Section-by-Section Discussion of Proposed Changes

BSEE is proposing to revise the following regulations:

Subpart A—General

Definitions (§ 250.105)

This rulemaking would add definitions for “*BOP systems and related equipment*” and “*HPHT environment*.”

The new definition of “*BOP systems and related equipment*” would include all pressure controlling and pressure containing well control equipment that may or will be exposed to the well’s maximum anticipated surface pressure (MASP) during any phase of operation (*i.e.*, drilling, completion, workover, intervention, or abandonment). The definition would also explain that well control equipment includes equipment that is installed for the purpose of pressure control and containment when it becomes necessary to physically enter a well bore during drilling, completion, workover, intervention, or abandonment modes of operation. The proposed definition of “*BOP systems and related equipment*” is consistent with how BSEE defined the term in NTL 2019-G03.

The definition of *HPHT environment* would be moved from § 250.804(b) to this section and revised to include operations (1) that require equipment or well control equipment pressure rated for greater than 15,000 psia or temperature rated for greater than 350 degrees Fahrenheit; (2) where the MASP or shut in tubing pressure (SITP) is greater than 15,000 psia on the seafloor for a well with a subsea wellhead or at the surface for a well with a surface wellhead; or (3) with a flowing temperature greater than 350 degrees Fahrenheit measured on the seafloor for a well with a subsea wellhead or at the surface for a well with a surface wellhead. The proposed definition is consistent with BSEE’s current definition of HPHT environments in

§ 250.804(b) and is identical to the definition in NTL 2019-G03.

Service Fees (§ 250.125)

This rulemaking would revise paragraph (a)(2) of § 250.125 by adding new service fees for BSEE review of submittals associated with the DWOP Process. Specifically, this rulemaking would add service fees for processing a Project Conceptual Plan, New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, revised DWOP, Combined Conceptual Plan/DWOP, and Supplemental DWOP. This rulemaking would also revise the cost recovery fee amount for DWOP approval to reflect current BSEE review and processing timeframes. These service and cost recovery fees would cover BSEE’s costs for administrative and technical review of each identified submittal and processing.

Documents Incorporated by Reference (§ 250.198)

This rulemaking would revise paragraph (e)(82) of § 250.198, which incorporates ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, to add new references to §§ 250.518 and 250.619, making this standard applicable to completion and workover operations. The changes to this paragraph are administrative to reflect changes made to §§ 250.518 and 250.619 to reference this standard and are addressed further in the section-by-section discussion for these two sections.

This rulemaking would revise paragraph (e)(86) of § 250.198 to update the incorporation of ANSI/API Spec. 11D1 to the third edition of that standard. BSEE reviewed the new edition and differences between the second and third editions of ANSI/API Spec. 11D1 and determined that the third edition is appropriate to incorporate into the regulations. The ANSI/API Spec. 11D1 third edition now includes an improved testing procedure for design verification and validation of packers and bridge plugs. The most significant change from the second edition to the third edition was the addition of the enhanced validation of the testing processes.

This rulemaking would revise paragraph (e)(91) of § 250.198, which incorporates ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment, Second Edition, to add new references to §§ 250.518 and 250.619, making this standard applicable to completion and workover operations. The changes to this

paragraph are administrative and reflect changes made to §§ 250.518 and 250.619 and are addressed further in the section-by-section discussion for these two sections.

This rulemaking would also revise paragraph (i)(1) of § 250.198, which incorporates NACE Standard MR0175–2003, Standard Material Requirements, Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments, Revised January 17, 2003, to add new references to §§ 250.518 and 250.619, making this standard applicable to completion and workover operations. The changes to this paragraph are administrative and reflect changes made to §§ 250.518 and 250.619 and are addressed further in the section-by-section discussion for these two sections.

Subpart B—Plans and Information

BSEE is proposing to reorganize this subpart to incorporate new requirements and to ensure that information is submitted in an appropriate sequence. Many of the current provisions in this subpart would be moved into other sections within this same subpart without change. This section-by-section discussion identifies where BSEE proposes to move the content of the current provisions, explains proposed revisions to existing language, and proposes new provisions. For more information on these changes, BSEE has included a derivation table in Section IV of this notice.

The proposed rule would restructure Subpart B—*Plans and Information*, under the following undesignated headings:

- General Information
- Barrier Equipment and Systems
- Activities and Post-Approval Requirements for the EP, DPP, DWOP, AND DOCD
- Deepwater Operations Plan (DWOP) Process
- Conceptual Plans
- DWOP Approval.

General Information

Definitions (§ 250.200)

This rulemaking would revise paragraph (a) of § 250.200 by adding the acronym for HPHT. These are all common terms that are used throughout this subpart.

This rulemaking would also revise paragraph (b) of § 250.200 by adding, revising, or eliminating the following definitions, as noted:

- Add definition for “*Barrier categorization*” to identify barriers as one of the following two categories:
 - Category 1 Barrier, which would mean any equipment, component, or

assembly that functions as part of a primary barrier system during any operational phase of its life cycle. The operational phases of the barrier equipment, component or assembly are drilling, completion, workover, intervention, injection, production, or abandonment; and

- Category 2 Barrier, which would mean any equipment, component, or assembly that normally functions as part of a secondary barrier system in all operational phases of its life cycle, except when a primary barrier fails. The operational phases of the barrier equipment, component or assembly are drilling, completion, workover, intervention, injection, production, or abandonment. BSEE may consider non-barrier structural components of a barrier system as Category 2 barriers, if failure of this structural component could reasonably result in a barrier failure.
- Add a definition for Primary Barrier system, which would mean the component, or group of components that is designated as the principle means of isolating the source of hydrocarbons and/or pressure from people and the environment.

• Add the definition for Secondary Barrier system, which would mean the component or group of components that is designated as the secondary means of isolating the source of hydrocarbons and/or pressure from people and the environment. The secondary barrier system would be redundant to the primary barrier system as long as the primary barrier remains intact.

- Revise the definition for “new or unusual technology” to include equipment or procedures used for any drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment operation that meets any of the following criteria:

(1) Has not been approved for use or used extensively in a BSEE OCS Region;

(2) Has not been approved for use or used extensively under the anticipated operating conditions;

(3) Has operating characteristics that are outside the performance parameters established in 30 CFR part 250;

(4) Will operate in an HPHT environment as defined in proposed (§ 250.105); or

(5) Is part of a primary or secondary barrier system that uses materials, design analysis techniques, validation testing methods or manufacturing processes not addressed in existing industry standards. This is intended to include any existing industry standard and is not limited to those standards

incorporated by reference in BSEE regulations.

These revisions would provide improved clarity regarding operations that BSEE has determined involve new or unusual technology and provide consistency for operators when actions would need to be taken using new or unusual technology.

- Replace the definition for “non-conventional production or completion technology” with “subsea tieback development technology.” The definition of “subsea tieback development technology” would still include the current examples of floating production systems, tension leg platforms, spars, Floating Production Storage and Offloading Vessel (FPSO) systems, guyed towers, compliant towers, subsea manifolds, and subsea production components and would add subsea wells, hybrid wells, and other subsea completion components to the list of examples. This proposed term revision is intended to provide clarity and reflect the current nomenclature for this technology.

- Remove the definitions of “modification,” “offshore vehicle,” “resubmitted OCS plan,” “revised OCS plan,” and “supplemental OCS plan.” These terms are currently not used elsewhere in this subpart and are residual from when BSEE separated these regulations from BOEM requirements (see 76 FR 64432).

What plans and information must I submit before I conduct any activities on my lease or unit? (§ 250.201)

This rulemaking would revise existing paragraph (a) of § 250.201 to reflect the creation of the New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, and the Project Conceptual Plan. This section provides general information about each plan and identifies when BSEE approval is necessary. Paragraph (a) would also clarify when each plan approval is required for certain activities. An operator is only required to submit the applicable conceptual plan(s). Each of these conceptual plans are standalone plans and are not contingent upon approval of each other. For example, if an operator plans to use new or unusual technology barrier equipment, they would only be required to submit a New or Unusual Technology Barrier Conceptual Plan, they would not be required to submit a New or Unusual Technology Conceptual Plan as well.

This rulemaking would also remove existing paragraph (c), which includes the limiting information provisions. The limiting information provisions allow

the Regional Director to limit the amount of information or analyses required to be included with the submitted plans or documents, covered by this subpart, under certain conditions. The limiting information provisions are not used by BSEE and are residual from when BSEE separated these regulations from BOEM requirements (see 76 FR 64432).

How must I protect the rights of the Federal government? (§ 250.202)

The content of this proposed section would be moved from existing § 250.204 without revision.

Are there special requirements if my well affects an adjacent property? (§ 250.203)

The content of this proposed section would be moved from existing § 250.205 without revision.

Requirements for High Pressure High Temperature (HPHT) Barrier Equipment (§ 250.204)

This proposed section is new and clarifies what information an operator would be required to submit to BSEE if the operator plans to install HPHT barrier equipment. This section cross-references the applicable DWOP Process requirements associated with the New or Unusual Technology Barrier Conceptual Plan. These additions are necessary to help ensure that the equipment is fit for service in the specific HPHT environment. BSEE's review and approval of information submitted during the DWOP Process is intended to occur in conjunction with BSEE review and approval of associated applications or permits (e.g., APD, APM, pipeline, and production safety system).

Barrier Equipment and Systems

What equipment does BSEE consider to be a barrier? (§ 250.206)

This section would codify some of the barrier concepts from BSEE NTL 2009–G36. Many parts of existing BSEE regulations under Subparts D, E, F, G, H, J and Q are dedicated to establishing barrier requirements. This section would clarify that BSEE considers a barrier or barrier system to be any engineered equipment, materials, component, or assembly that is installed to contain a hydrocarbon or other pressure source(s) to prevent harm to people or the environment. BSEE only recognizes barriers (non-mechanical or mechanical in nature) that are either permanently or temporarily installed, pressure controlling, and/or pressure containing barriers. Pressure controlling barriers must be able to be activated on demand. This rulemaking would also

clarify that barriers or barrier systems are required to be able to function and/or be pressure tested repeatedly to defined acceptance criteria. If the barrier or barrier system is classified as Safety and Pollution Prevention Equipment (SPPE) (as described under § 250.801(a)), then it must also be compliant with the leak test requirements established in Subpart H. Any specific engineered equipment, materials, components, or assembly that exist within a barrier system that are not tested would not be considered a barrier. This section would not alter or impact any existing regulation; it only documents a principle that is the basis of many BSEE regulations.

These barrier concepts are based on BSEE's viewpoint that abnormal conditions and/or failures are potential risks in a well or pipeline system. When an abnormal condition or failure occurs, it must be detectable, and upon detection, it is important to isolate its source behind redundant barriers. Primary or Secondary Barrier equipment may include, but is not limited to:

- Wellhead system, such as the high pressure housing, production casing hangers, and seal assemblies
- Tubing head
- Tubing hanger
- Tree, including all valves, fittings, and chokes
- Surface Controlled Subsurface Safety Valve (SCSSV), including all associated safety valve locks and landing nipples
- Capping stack
- BOP
- Completion workover riser system (CWOR)
- Surface flowhead used above a CWOR
- Subsea test tree (SSTT)
- Wellhead connector
- Landing nipples and tubing plugs
- Production liner hanger/packer
- Packers
- Pipeline boarding shutdown valve
- Flowline riser
- High integrity pressure protection system (HIPPS), including all equipment between the HIPPS and the tree
- Well top tension riser systems
- Production tubing
- Production casing
- Production liner
- Production casing and liner cement
- Production tubing, casing, and liner threaded connections
- Production liner hanger/packer
- Flowline jumpers
- Jumper connectors
- Manifolds
- Pipeline End Termination (PLETs)
- Pipeline End Manifolds (PLEMs)

- Flowlines
- Umbilicals
- Any other pressure containing or pressure controlling equipment from the production liner within the well through the last barrier in a subsea production, BOP, or intervention system.

How must barrier systems be used? (§ 250.207)

Under this section, operators would be required to install and maintain a primary and secondary barrier system to prevent a loss of containment during any operational phase of a well, flowline, pipeline, production, or riser system. It is BSEE's goal to prevent loss of containment by minimizing single point failures wherever possible. Given the probability that any barrier may fail during its service life due to age, corrosion, wear, damage, environment or accidents, the best mitigation is redundancy. This section would not alter or impact any existing regulation; it only documents a principle that is the basis of many BSEE regulations.

Activities and Post-Approval Requirements for the EP, DPP, DWOP, and DOCD

How must I conduct activities under an approved EP, DPP, or DOCD? (§ 250.208)

The content of this proposed section would be similar to the language in 30 CFR 550.280, *How must I conduct activities under the approved EP, DPP, or DOCD?* During the regulatory split between BSEE and BOEM, the content of this section was inadvertently removed from this part; however, the content is still applicable to BSEE and should be included in this part, as well as in 30 CFR part 550.

What must I do to conduct activities under the approved EP, DPP, or DOCD? (§ 250.209)

The content of this proposed section would be similar to the language in 30 CFR 550.281, *What must I do to conduct activities under the approved EP, DPP, or DOCD?* paragraphs (a) and (b). During the regulatory split between BSEE and BOEM, the content of this section was inadvertently removed from this part; however, the content is still applicable to BSEE and should be included in this part, as well as in 30 CFR part 550.

Do I have to conduct post-approval monitoring? (§ 250.210)

The content of this proposed section would be moved from § 250.282. This section would also add minor revisions to clarify that the Regional Supervisor may direct operators to conduct

monitoring programs in association with their approved EP, DPP, DWOP, or DOCD.

What are my new or unusual technology failure reporting requirements? (§ 250.211)

This proposed section is new and would clarify the new or unusual technology failure reporting requirements. Currently, BSEE does not receive new or unusual technology failure data associated with approved DWOPs; however, BSEE has recently requested new or unusual technology failure data as a condition of DWOP approval. This section would require an operator to notify BSEE within 30 days of a failure and provide a written report identifying the root causes of the failure. This new section is intended to provide BSEE with a better understanding of operational limitations of equipment associated with an approved DWOP. Existing failure and incident reporting requirements in §§ 250.188, *What incidents must I report to BSEE and when must I report them?*, 250.730, *What are the general requirements for BOP systems and system components?*, and 250.803, *What SPPE failure reporting procedures must I follow?* may be used to help fulfill the new or unusual technology failure reporting requirements of this section. This section is not a substitute for other currently applicable failure or incident reporting requirements. Even though BSEE requires the operator to perform a risk assessment, failure mode analysis, design verification analysis, and validation testing on all new or unusual technology, a failure could still occur.

Operating experience is an important tool for comprehensively understanding all possible issues with new technologies. BSEE has approved many new technologies for operators in the OCS. Even with successful implementation, new technology is often modified based on lessons learned during its use and application on the OCS. If a failure occurs on a new or unusual technology that was installed, BSEE may not approve this same new or unusual technology for installation again until we comprehensively understand the root cause of the failure and we confirm that the failure can be mitigated. Therefore, it is important for all failures to be reported.

Deepwater Operations Plan (DWOP) Process

What is the DWOP Process? (§ 250.220)

The content of this proposed section would be moved from § 250.286 and

would contain the following revisions and additions:

Paragraph (a) of § 250.220 would clarify that the DWOP Process is not only used for review of subsea tieback development technology, but also applies to deepwater development projects and other projects or systems that use new or unusual technology during any phase of drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment operations. These additions clarify when the DWOP Process is necessary and correspond with the proposed additions of DWOP Process new or unusual technology requirements.

Paragraph (b) would add that the DWOP Process does not replace other BSEE applications or permits (e.g., APD, APM, pipeline, and platform). Other minor revisions to this paragraph reflect the corresponding additions to the proposed new or unusual technology requirements for the DWOP Process.

Paragraph (c) would clarify that the DWOP Process consists of two phases: The Conceptual Plans and the DWOP. The current DWOP regulations do not differentiate between the DWOP Process and the DWOP plan itself, as they currently use the term DWOP to refer to both. This proposed section would clarify the terms and is intended to reduce confusion about the different phases of the DWOP Process. The proposed DWOP requirements are not intended to require the submittal of a DWOP for operations not currently covered under the DWOP plan stage (e.g., drilling and decommissioning), but would require submittal of the appropriate Conceptual Plan. Proposed §§ 250.227 through 250.229 would identify the contents of the Conceptual Plans. Proposed §§ 250.236 through 250.242 would identify what the DWOP must contain.

When must I use the DWOP Process? (§ 250.221)

The content of this proposed section would be moved from § 250.287 and would clarify that the DWOP Process is applicable to any project in water depths greater than 1000 feet and to any project that will include the use of subsea tieback development technology, regardless of water depth, or new or unusual technology for any drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment operations. These revisions provide consistency and reflect corresponding additions to the

proposed new or unusual technology and DWOP requirements.

DWOPs have always been required when a development is situated in water depths of 1000 feet or greater or when subsea tieback development technology is used in any water depth. BSEE proposes to codify our existing practices to include the expansion of new or unusual technology. This rulemaking would also add requirements for the DWOP Process when any new or unusual technology is used for drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment projects. This would provide consistency for all new or unusual technology reviews.

Conceptual Plans

What are the types of Conceptual Plans that I must submit? (§ 250.225)

This proposed section is new and would identify the three types of proposed Conceptual Plans:

- A *Project Conceptual Plan* is required for any project that is planned in water depths greater than 1000 feet or will include the use of subsea tieback development technology, regardless of water depth (see proposed § 250.221 paragraphs (a)(1) and (2));

- A *new or unusual technology Conceptual Plan* is required for any project or system that involves equipment or systems that are considered new or unusual technology (see proposed § 250.200 for the definition of new or unusual technology); and

- A *new or unusual technology Barrier Conceptual Plan* is required for any project or system involving new or unusual technology that is also identified as a primary or secondary barrier (see proposed § 250.200 for the definition of primary or secondary barriers).

This proposed section would add clarity by describing the proposed types of Conceptual Plans. The proposed requirements for each Conceptual Plan are discussed in the applicable corresponding sections, §§ 250.227 through 250.229. An operator must submit the applicable Conceptual Plan(s) based on specifics of the proposed project. The operator may be required to submit multiple Conceptual Plans.

When and how must I submit each applicable Conceptual Plan? (§ 250.226)

The content of this proposed section would be moved from §§ 250.288 and 250.290 and revised to clarify that the operator must submit its Conceptual

Plans to the Regional Supervisor after the operator decides on the general concept(s) for a project or system, and before it begins final engineering design of the equipment, well, well safety control system, or subsea production systems. These revisions would help ensure that the operator considers the information associated with the proposed Conceptual Plans before application or permit (e.g., APD, APM, pipeline, platform) approval. Once an operator begins final engineering design, it is generally too late to address changes to design and fabrication that may affect an entire project and may significantly delay project approval if such changes are necessary. This rulemaking would add a table to organize and clarify information associated with the three types of proposed Conceptual Plans.

Proposed paragraph (a) of § 250.226 would include content from § 250.290 and would further clarify that Project Conceptual Plan approval would be required before completion of any production or injection well, or installation of the tree.

Proposed paragraph (b) would add the following requirements regarding a New or Unusual Technology Conceptual Plan:

- The operator may not install any new or unusual technology until BSEE approves the New or Unusual Technology Conceptual Plan;

- BSEE must approve the New or Unusual Technology Conceptual Plan before BSEE may approve any associated application or permit (e.g., pipeline, platform, APD, APM); and

- The Regional Supervisor may require the operator to use an I3P to perform certain functions and verifications in accordance with § 250.231, as applicable. This addition would allow BSEE to use I3P services for new or unusual technology reviews that may involve technically complex engineering and require a high degree of specialized engineering knowledge, expertise, and experience to evaluate and help ensure appropriate reviews are conducted for the new or unusual technology.

These revisions would help ensure that operators consider the information associated with the proposed Conceptual Plans before application submittal, which would allow for changes to be considered in the design and fabrication process, potentially saving operators significant time and expense. This would also establish a formalized process for BSEE to review new or unusual technology technologies.

Proposed paragraph (c) would add the following requirements regarding a New or Unusual Technology Barrier Conceptual Plan:

- The operator must submit a New or Unusual Technology Barrier Conceptual Plan for any project or system involving new or unusual technology that is also identified as a primary or secondary barrier;
- BSEE must approve the New or Unusual Technology Barrier Conceptual Plan prior to new or unusual technology barrier equipment installation;
- BSEE must approve the new or unusual technology barrier equipment before BSEE may approve of any associated application or permit (e.g., pipeline, platform, APD, APM); and
- An operator submitting a New or Unusual Technology Barrier Conceptual Plan must use an I3P to perform certain functions and verifications in accordance with proposed § 250.231, *What are the I3P review requirements for Conceptual Plan reviews?*

These revisions would help ensure that operators consider the information associated with the proposed conceptual plans before application submittal, thereby allowing for changes to be considered in the design and fabrication process, potentially saving operators significant time and expense. This would also establish a formalized process for BSEE to review new or unusual technology barrier technologies.

What must the Project Conceptual Plan contain? (§ 250.227)

This proposed section would require a Project Conceptual Plan to include the basis of design that the operator would use to develop the field. Proposed paragraphs (a), (b), (c), and (i)(1) of § 250.227 would reflect content of existing § 250.289. In addition, this section would require the operator to include the following information in the Project Conceptual Plan:

- Confirmation that the subsea production safety system will comply with Subpart H;
- For a new facility, a description of the type of facility the operator plans to install (e.g., Spar, Tension Leg Platform (TLP), FPSO, etc.);
- For a subsea tieback to an existing facility, a statement identifying whether a minor or major structural modification will be made to the facility and the facility's remaining design life. If modifications will be made to the existing facility, a calculation of the facility's remaining

design life and explanation of how the modifications will impact the design life;

- A statement regarding whether the host facility will be manned or unmanned;
- A schedule of development activities, including well completion, facility installation, and date of first oil;
- Schematics, including:
 - A well location plat;
 - A subsea field schematic depicting the planned development infrastructure that contains the wells, pipelines, riser systems, umbilical(s), and facility footprint;
 - The surface or subsea tree;
 - Wellbore and completion schematic for a typical well (including SCSSV location and chemical injection points; and depiction of, or statement of whether there will be gas zones behind the production casing or production liner and how they will be isolated); and
 - Information concerning the drilling and completion systems.
- The estimated shut-in tubing pressure for the proposed well(s), including the calculation used to arrive at the estimate, specifying true vertical depth (TVD), reservoir pressure, and the fluid gradient used, or a brief discussion of the pressure volume temperature (PVT) data used for estimation;
- The wellbore static bottomhole temperature and the estimated flowing temperature at the tree;
- The pressure and temperature rating of the tree and wellhead;
- Identify if there will be corrosive production (e.g., H₂S, carbon dioxide (CO₂), Mercury (Hg) or injection fluids (e.g., acid), including concentrations;
- Identify whether any proposed equipment will be re-furbished and re-certified;
- Identify whether enhanced recovery is planned for the early life of the project;
- Identify whether any new or unusual technology will be used to develop your project involving the following activities: Drilling, completion, injection, production, pipeline, or platform;
- Identify whether the well(s) will include smart completion technology; and
- Payment of the service fee listed in § 250.125.

BSEE currently requests and receives information similar to information listed in these proposed revisions for current conceptual plan approval. These revisions would codify current BSEE practices and provide BSEE with

sufficient information to review Project Conceptual Plans. These revisions would also provide clarity and consistency for operator submittals of the Project Conceptual Plan. This rulemaking would also align the DWOP Process requirements with the current electronic system for submitting applicable plans.

These revisions would help ensure that operators consider the information associated with the Project Conceptual Plan before application submittal and allow for potential changes to be considered in the design and fabrication process, potentially saving operators significant time and expense.

What must the New or Unusual Technology Conceptual Plan contain? (§ 250.228)

Proposed paragraph (a) of § 250.228 would require the following information to be included in the New or Unusual Technology Conceptual Plan:

- How the New or Unusual Technology Conceptual Plan fits within the overall site-specific project, if applicable, including an overview of the project development concepts;
- Description of the technology and specific conditions under which it will be used;
- Description of shut-in capabilities and procedures;
- Description of redundancies of critical components or systems that will be used;
- Discussion of how the technology could impact the barrier system, if any, including the detection method for technology failure and how the barrier functions to a fail-safe state when impacted by new or unusual technology failure;
- Information on inspection and testing capabilities;
- A risk assessment and failure mode analysis;
- Operating procedures;
- History of development and application of the technology;
- The basis of design, including design verification and validation testing;
- Detailed schematics;
- Justification for new or unusual technology use, and any additional information required for a complete review;
- A list of any requested alternate procedures or equipment in accordance with § 250.141 and requested departures in accordance with § 250.142;
- A certification statement that the technology is fit for service in the applicable environment for the specific project location; and

- Payment of the service fee listed in § 250.125.

Proposed paragraph (b) would allow for the Regional Supervisor to require the use of an I3P according to proposed § 250.230 if the system or equipment requires a high degree of specialized or technically complex engineering knowledge, expertise, and experience to evaluate, or is not addressed in existing industry standards. This addition would help BSEE ensure that the equipment or process is appropriate for use in the specific environmental and operating conditions. In addition, the Regional Supervisor would be able to require operators to follow I3P requirements under § 250.231, on a case-by-case basis. Finally, this section would instruct operators to direct any questions about I3P requirements for New or Unusual Technology Conceptual Plans to the Regional Supervisor.

BSEE currently requests and receives information for conceptual plans similar to what would be required by these revisions. These revisions would codify current BSEE practices and would ensure BSEE consistently receives sufficient information for New or Unusual Technology Conceptual Plan review. These revisions would also provide clarity and consistency for operator submittal of the New or Unusual Technology Conceptual Plan. Similar information is presently required or requested of operators and provided to BSEE for review in the current DWOP Process.

What must the New or Unusual Technology Barrier Conceptual Plan include? (§ 250.229)

This proposed section would require the following information to be included in the New or Unusual Technology Barrier Conceptual Plan:

- Description of how the New or Unusual Technology Barrier Conceptual Plan fits within the overall site specific project, if applicable, including an overview of the project development concepts and a proposed schedule for submittal of associated conceptual plans;
- Diagram depicting the primary and secondary barriers, including all components, assemblies or sub-assemblies labeled and categorized as Category 1 barriers or Category 2 barriers;
- List of the primary and secondary barriers that include all components, assemblies, or sub-assemblies, specifying each assigned barrier as either a Category 1 barrier or Category 2 barrier;

- List of the engineering standards that will be used in the equipment's material selection and qualification, design verification analysis, and design validation testing;
- List of requested alternate procedures or equipment in accordance with § 250.141 or requested departures in accordance § 250.142;
- List of the functional requirements (*i.e.*, environmental, and physical loads (magnitude and frequency)) for which the barrier equipment is being designed;
- Description of the barrier equipment's safety critical functions, (*i.e.*, function(s) performed by or inherent to the equipment enabling it to achieve or maintain a safe state);
- An I3P nomination, in accordance with proposed § 250.230 paragraph (a); and
- An I3P verification plan that includes:
 - Discussion of the barrier equipment's material selection and qualification;
 - Discussion of the barrier equipment's design verification analyses;
 - Discussion of the barrier equipment's design validation testing;
 - Explanation of why the analyses, processes, and procedures ensure that the barrier equipment is fit for service in the applicable environment; and
 - Details regarding how the I3P will address the additional items listed in proposed § 250.231;
- I3P reports as required in proposed § 250.232; and
- Payment of the service fees listed in § 250.125.

Proposed paragraph (l) would clarify that, after BSEE receives all of the required I3P reports, the operator must submit a certification statement that the barrier equipment is fit for service in the applicable environment (for the specific project location).

BSEE currently requests and receives information in conceptual plans similar to these proposed revisions. These revisions would provide clarity and consistency for operator submittal of the New or Unusual Technology Barrier Conceptual Plan, codify existing BSEE practices, and would provide BSEE with sufficient information for proper New or Unusual Technology Barrier Conceptual Plan review and, if warranted, approval.

What are the requirements for the Independent Third Party (I3P) nomination? (§ 250.230)

This proposed section would outline the requirements for the operator to nominate an I3P to be used in

- conjunction with applicable Conceptual Plans. Paragraph (a) would add the nomination criteria for the I3P to review the design verification and design validation classification of the Original Equipment Manufacturer (OEM), including that the I3P must be a technical classification society, a licensed professional engineering firm, or a registered professional engineer capable of providing the required certifications and verifications. This paragraph would also clarify that the I3P nomination must be submitted to BSEE for approval and must include the following information:
 - Previous experience in third-party verification or experience in the design, fabrication, or installation of applicable offshore oil and gas equipment;
 - Technical capabilities of the individual or the primary staff for the specific project;
 - Size and type of organization or corporation;
 - In-house availability of, or access to, appropriate technology to review the specific project (this should include computer programs, hardware, and testing materials and equipment as applicable);
 - Ability to perform the I3P functions for the specific project considering current commitments (*e.g.*, project timelines, schedules, and personnel availability); and
 - Previous experience with BSEE requirements and procedures.

This proposed section would help ensure that BSEE is informed of the I3P competencies and show that the I3P is qualified to perform the required verifications and certifications of this subpart.

Paragraph (b) would require that operators allow the I3P to access all associated documentation and equipment related to items in proposed § 250.229(i) to perform the complete reviews in accordance with proposed § 250.231. This may include OEM documents or access to the fabrication and manufacturing locations. The operator is responsible for ensuring that the I3P has the appropriate information to complete the required verifications and certifications. This documentation is necessary for the I3P to conduct its review and verify, as appropriate, that the equipment is designed and manufactured to operate within its specified operating limits.

Multiple I3Ps may be used to conduct the applicable verifications. These proposed revisions are not intended to limit the number of I3Ps, as operators may need multiple I3Ps to cover

multiple types of equipment covered under all applicable Conceptual Plans.

What are the I3P review requirements for Conceptual Plan reviews? (§ 250.231)

This proposed section identifies the requirements for the I3P review. Paragraph (a) would require the I3P to review the following information regarding the applicable equipment or system:

- Basis of Design, Technical Specification (if known at this point in the design process) and Functional Requirements (*i.e.*, environmental, and physical loads (magnitude and frequency));
- Risk assessment and failure mode analysis;
- Material specification, selection, qualification, and testing;
- Design verification analysis, including a structural/strength analysis and fatigue assessment and/or analysis;
- If fatigue is identified as a potential failure mode in the required fatigue assessment and/or analysis, the plan to record and gather data (*i.e.*, load monitoring) in order to conduct a future fatigue analysis;
- Design validation testing; and
- Fabrication, quality management system, and inspection and test plan(s) that identifies the quality control/quality assurance process, and inspection of the final products.

Paragraph (b) would require the I3P to submit a report to BSEE documenting the review of each item covered under paragraph (a) of this section. This paragraph would also require each report to identify all OEM and operator documents used during the I3P reviews.

Paragraph (c) would require the I3P to submit a final report to BSEE that summarizes each of the review requirements covered under paragraph (a) of this section. This paragraph would also require the final report to include the equipment and/or system's technical specifications, including a certification statement that the equipment and/or system is fit for purpose for the technical specification by the I3P, and verification that the equipment's technical specifications meet or exceed the project's functional requirements, including a certification statement that the equipment and/or system is fit for purpose for the proposed project by the I3P.

Paragraph (d) would clarify that, for any subsequent I3P review of equipment and/or system's technical specification that was previously approved in the operator's New or Unusual Technology Barrier Conceptual Plan, the Regional Supervisor may accept a final report in

accordance with § 250.231(c), including the existing certification covered under paragraph (c)(1) of this section, in lieu of reports required in paragraph (b). The I3P would be required to submit an updated certification statement in accordance with § 250.231(c)(2) for the specific project.

This section would require I3P review of all new or unusual technology Category 1 or Category 2 barrier equipment to help minimize the risk of loss of containment on new barrier equipment through reliance on the principle of qualified redundant barrier systems. The concept of using an I3P review process has been used in the regulations for various operations (*e.g.*, §§ 250.914 through 250.918, 250.420, and 250.732). The I3P review process within § 250.231, would be the same process described in NTL 2019-G03 “*Guidance for Information Submissions Regarding Site Specific and Non-Site Specific HPHT Equipment Design Verification Analysis and Design Validation Testing*.” The industry is currently using this NTL for the design verification and validation analysis for HPHT barrier equipment that will be used in the Gulf of Mexico. The verification processes in this section would be similar to the basic engineering design and manufacturing methodologies found in many existing engineering standards.

General Requirements for Any I3P Report (§ 250.232)

This proposed section would clarify expectations for the I3P reports. This rulemaking would require that an I3P report must be a standalone document that clearly summarizes the verification work performed and must contain a sufficient level of detail (*i.e.*, quantitative information) and clarity to establish the basis of the I3P's findings and recommendation(s). Each report would be required to identify the OEM or operator documents reviewed, the detailed I3P review, and convey the results of the I3P's review without requiring BSEE to review any other referenced document. This section would establish basic expectations for I3P reports and provide consistency and uniformity for operator submittals and BSEE reviews. These reports are an important tool for BSEE to conduct appropriate reviews and it is imperative to ensure that these reports are comprehensive and clear. These reports also contain information necessary for audit purposes.

DWOP Approval

When and how must I submit the DWOP? (§ 250.235)

The content of this proposed section would be moved from § 250.291, and would be revised to clarify that a DWOP must be submitted to the Regional Supervisor after BSEE has approved the operator's project conceptual plan and the operator has substantially completed system design, and before the operator conducts post-completion installation activities for a deepwater development project, or for any project that will involve the use of subsea tieback development technology in any water depth, which may include new or unusual technology or new or unusual technology barrier equipment. This section would also clarify that operators cannot begin production from the well until BSEE approves the DWOP. The revisions to this section would help ensure that there is enough time for BSEE to review a DWOP, including resolution of any potential issues, prior to DWOP approval. The operator should consider the DWOP requirements when beginning to procure or fabricate the safety and operational systems (other than a tree, because operators may install a tree after Conceptual Plan approval), production platforms, pipelines, or other parts of the production system.

What information must I submit with the DWOP? (§ 250.236)

This proposed section is organizational in nature and would identify the types of information that the operator must submit with the DWOP by adding a table that lists the applicable sections and the information to be included. In this section, BSEE would reorganize and breakout the DWOP requirements by topic, as reflected in paragraphs (a) through (f). These revisions would improve clarity for applicable information requirements.

What general information must my DWOP include? (§ 250.237)

This proposed section identifies the general information that an operator would be required to submit in the DWOP, as applicable. The content of paragraphs (a) and (b) of this proposed section would be moved from current § 250.292(o) and (q). This section would add Paragraph (c) to require the submission of a list of any associated industry standards not incorporated in the regulations that the operator will use for project design or operation.

What well or completions information must my DWOP include? (§ 250.238)

The content of this proposed section would be moved from current § 250.292 and would include a revision to paragraph (c) to clarify that this section requires information in the operator's DWOP about the design and fabrication of each wellbore riser system deployed from a floating production facility or TLP. This revision would clarify that these informational requirements apply to wellbore risers as components of the well and resolve confusion regarding the general term "riser" and its applicability of multiple types of risers (e.g., pipeline risers and wellbore risers) used on the OCS.

What structural information must my DWOP include? (§ 250.239)

The content of this proposed section would be moved from current § 250.292 and would include a revision to paragraph (b) to clarify that the design, fabrication, installation, and monitoring information would be required for the tendon or mooring systems, including the turret or buoy system, as applicable. This revision would reflect current equipment and operations common to DWOP approvals.

What production safety system information must my DWOP include? (§ 250.240)

This proposed section identifies the production safety system information that an operator would be required to submit in the DWOP, as applicable, to align with the activities the operator plans to address in the associated production safety systems application. The content of paragraphs (a), (b), (c), (d), (e)(3) of this proposed section would be moved from current § 250.292. The additions to this proposed section would require submission of the following information:

- (In paragraph (e)(1)) Methods, frequency, and acceptance criteria for testing the Underwater Safety Valves (USVs), SCSSVs, and Boarding Shutdown Valves (BSDVs);
- (in paragraph (e)(2)) The function and testing of the host facility Emergency Shutdown Device (ESD) system and its interface to the subsea system; and
- (in paragraph (f)) Information on the design, operation, maintenance, personnel competency, and testing of your subsea leak detection system to protect your subsea field/infrastructure (e.g., trees, manifolds, jumpers). Operators must include procedures for how to operate the system, ensure system functionality,

identify a leak, and the actions to be taken when a leak is identified.

The content of this section would codify similar concepts from NTL 2000-N06, *Deepwater Operations Plans (DWOP)*. These proposed revisions would also help ensure compliance with the requirements of Subpart H. Subsea leak detection systems are critical for all subsea production systems to minimize discharges of hydrocarbons into the environment due to equipment failure below the waterline.

What subsea systems and pipeline information must my DWOP include? (§ 250.241)

This proposed section would identify the subsea systems and associated pipeline systems information that must be included in the DWOP, as applicable. The content of paragraphs (c)(2)(i), (ii), (iii) of this proposed section would be moved from current § 250.292. Proposed paragraph (a) would require the operator to identify the information common to the subsea system and the associated pipeline system, which constitute all or part of a single project development covered by the DWOP and/or aligns with activities addressed in an associated pipeline application, and would require the submission of the following:

- Subsea field schematic depicting the planned subsea development equipment and infrastructure, including wells/trees, non-pipe subsea equipment, pipeline route(s), pipeline riser systems, umbilical(s), and platform footprint;
- Description of the subsea development project detailing the subsea and pipeline equipment design criteria and analysis procedures (including industry standards, pressure and temperature ratings, materials selection), testing methods, and general operational procedures;
- Description of the fabrication and assembly/testing location of subsea trees, pipelines, and non-pipe subsea equipment (manifold, PLEM, PLET, Subsea Umbilical Termination Assembly (SUTA), subsea pumps, suction piles, etc.);
- Summary of the subsea tieback development technologies' Integrity Management Program, including a plan for inspection and monitoring to support assessment of system condition a minimum of once every 10 years. This should include, but not be limited to, the in-service inspections or surveys of hull and topsides structures, tendons, moorings, and pipelines and/or wellbore riser systems to assess component condition by inspection and analysis after each significant environmental event (e.g., hurricane, earthquake, loop and eddy currents, or mudslide), impacting the system, or once every 10 years, whichever occurs first. The longevity of the activities covered by a DWOP has proven to be greater than was originally conceived in many cases. Subsea tiebacks have become more commonplace since this rule was last revised, and the importance of integrity management for these assets has become apparent. This is evident especially based on time-dependent failure modes like corrosion and fatigue, which can significantly impact an operator's ability to maintain safe operations. Operators are already required to use recognized engineering practices, which are evaluated in a DWOP, to reduce risk in the operation of their assets. Other regulations specify that necessary in-service inspections be completed. Operators should already have integrity management programs in place to address the monitoring, inspection, and condition assessment of their assets. This section would codify similar inspection plans and maintenance language from NTL 2000-N06; and
- Summary of safety and environmental controls.

Paragraph (b) would require submission of the following information about subsea systems that constitute all or part of a single project development covered by the DWOP, as applicable:

- System control type (i.e., direct hydraulic or electro-hydraulic);
- Well tree(s), wellhead, and non-pipe equipment general arrangement drawings and schematics, with size and valve type annotations to illustrate the tree and other equipment in operation;
- Estimated shut-in tubing pressure for the proposed well(s), including the calculations used to arrive at the estimate, specifying TVD, reservoir pressure, and the fluid gradient used, or a brief discussion of the PVT data used for estimation;
- Wellbore static bottomhole temperature and the estimated flowing temperature at the tree, including a description of the method used to calculate this estimate;
- Umbilical(s) and umbilical connection(s), including an umbilical cross-section schematic;
- Chemical or other injection systems and/or enhanced recovery systems to be used;

- Corrosion monitoring and prevention/inhibition provisions;
- Details of any re-furbished and/or re-certified equipment you plan to use; and
- A schedule of development activities, including well completion, facility installation, and anticipated date of first oil.

Paragraph (c) would require an operator to include pipeline information in its DWOP, as applicable, to align with the activities to be addressed in the associated pipeline application(s):

- Design and fabrication information for each pipeline riser system;
- For projects that will use a pipeline free standing hybrid riser (FSHR) on a permanent installation that uses a buoyancy air can suspended from the top of the riser, the operator would be required to provide the following information in its DWOP as part of the discussion required by paragraph (b)(1) and (2) of this section: A detailed description and drawings of the FSHR, buoy, and the associated connection system; detailed information regarding the system used to connect the FSHR to the buoyancy air can, and associated redundancies; and descriptions of the monitoring system and monitoring plan for the pipeline FSHR and the associated connection system for fatigue, stress, and any other abnormal condition (e.g., corrosion), that may negatively impact the riser system's integrity; and

—Pipeline and pipeline riser installation methods.

Submission of this information is consistent with what BSEE presently requires in the DWOP (and has historically required). The proposed requirements would clarify general language in the existing regulation by adding specificity regarding scope.

What new or unusual technology information must my DWOP include? (§ 250.242)

This proposed section would identify the new or unusual technology information that must be included in the DWOP, including the information referenced in the applicable Conceptual Plan. Proposed paragraph (a) would require the submission of a description of any new or unusual technology being used in a development project, including a reference to previously approved New or Unusual Technology Conceptual Plans or New or Unusual Technology Barrier Conceptual Plans.

Paragraph (b) would require submission of a description of any new or unusual technology not covered

under the New or Unusual Technology Conceptual Plan or New or Unusual Technology Barrier Conceptual Plan. It would also require an operator to include the same applicable information as required in §§ 250.228 or 250.229.

This information is consistent with what BSEE historically and presently requires to be included in the DWOP. The requirements clarify general language in the existing regulation by adding specificity to the scope of information required in a DWOP. This would allow for previously reviewed technology to be described and referenced, if applicable. It would also allow for new or unusual technology proposals and approvals at a later stage of project development, provided that enough time is allowed to also comply with §§ 250.228 and/or 250.229.

These revisions would codify current BSEE practices and would provide BSEE with sufficient information for proper new or unusual technology and DWOP review. These revisions would also provide clarity and consistency for operator submittal of the DWOP.

May I combine the Conceptual Plan and the DWOP? (§ 250.245)

The content of this proposed section, which addresses when an operator may submit a combined Conceptual Plan and DWOP, would be moved from current § 250.294 and would include the following revisions:

The introductory paragraph would be revised to clarify that, if the operator's development project meets the criteria in proposed paragraphs (a) and (b) of this section, an operator may submit a combined Conceptual Plan/DWOP that complies with all applicable requirements for both, on or before the deadline for submitting the Conceptual Plan, as described in proposed § 250.226. Existing paragraph (a), which allows the operator to submit a combined Conceptual Plan/DWOP if the project is located in water depths of less than 400 meters (1,312 feet), would be removed. In the past, deepwater development projects, including projects in water depths greater than 400 meters, involved the use of systems and technologies that, at the time, were new and complex, and necessitated separate reviews provided through the Conceptual Plan and DWOP process. Over time, however, as deepwater development projects became more common, the knowledge gained and technologies used have matured to such a degree that these projects are now largely standardized and routine. Therefore, BSEE no longer finds the water depth criteria relevant to the allowance to combine a Conceptual Plan

and DWOP. The key factor necessary to determine the need for a separate Conceptual Plan and DWOP is whether the project proposes to use new technology, regardless of water depth.

Existing paragraph (a) would be replaced with existing paragraph (b), which allows a combined plan if the project is similar to projects involving subsea tieback development technology for which the operator has obtained approval previously. This rulemaking would add a new paragraph (b) to allow for the submission of a combined Conceptual Plan/DWOP if the project does not involve either new or unusual technology or a new platform. As previously stated at the beginning of the paragraph, the operator must meet the criteria in paragraph (a) and (b) of proposed § 250.245 in order to be able to submit a combined Conceptual Plan/DWOP.

These revisions would provide clarity for operators to streamline the process, when appropriate, and would reflect conforming edits for new or unusual technology. These revisions would reflect current BSEE acceptance of combined submission of the Conceptual Plan and DWOP in certain situations.

When must I revise my DWOP? (§ 250.246)

The content of this proposed section would be moved from current § 250.295 and revised to clarify when revision to an approved Conceptual Plan or DWOP is necessary. Revision is necessary when there are changes in the development project that alter the proposed plan or procedures, but that do not involve a physical alteration of the equipment on the platform or the seabed. As explained below, a supplement is required when changes involve a physical alteration of the equipment on the platform or the seabed. This section and the following section are intended to reduce confusion by helping operators determine when a revision or a supplement to the applicable Conceptual Plan or DWOP is necessary.

When must I supplement my DWOP? (§ 250.247)

This proposed section would identify when an operator must supplement the approved DWOP to reflect additions or changes in the development project.

Proposed paragraph (a) would require the operator to submit a supplement to the DWOP to reflect any additions or changes in the development project that physically alter the platform, process facilities, equipment, or systems approved in the original Conceptual Plan or DWOP. If a Supplemental DWOP proposes the addition of any

wells (e.g., a new subsea field) not approved in the original DWOP, the operator may not complete or produce from the new well(s) until BSEE approves the Supplemental DWOP.

Proposed paragraph (b) would require a supplement to the DWOP for additions or changes that involve the addition of any new or unusual technology to the project that was not previously approved under the New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, or DWOP. This proposed paragraph would also clarify that the operator may not install any new or unusual technology until BSEE approves the Supplemental DWOP.

This section would be added to clarify when operators must submit Supplemental DWOPs. This section and the section above are intended to reduce confusion by helping operators determine when a revision or a supplement to the DWOP is necessary.

What information must I include in my Supplemental DWOP? (§ 250.248)

This proposed section would describe the information that must be included in the supplement to the DWOP referenced in proposed § 250.247.

Paragraph (a) would require the same information for the wells or equipment as required in the applicable Conceptual Plan and DWOP requirements in this subpart. This addition would ensure consistency between the initial and supplemental submissions.

Paragraph (b) would describe information for each applicable Conceptual Plan or DWOP section that is being impacted by the addition or change.

Paragraph (c) would require payment of the new service fee for BSEE's review and processing of a supplemental DWOP, as listed in the proposed revisions to § 250.125.

Subpart D—Oil and Gas Drilling Operations

Hydrogen Sulfide (§ 250.490)

This proposed rule would revise paragraph (p) of this section, which addresses metallurgical properties of equipment used in an H₂S environment. The paragraph would be revised to state that if operating in a zone with H₂S present or when the concentration of H₂S in the produced fluid may exceed 0.05 pounds per square inch (psi) partial pressure of H₂S, the operator must use equipment that is constructed of materials with metallurgical properties that resist or prevent sulfide stress cracking (also known as hydrogen embrittlement, stress corrosion cracking, or H₂S embrittlement), chloride-stress cracking, hydrogen-induced cracking, and other failure modes.

This regulation would be revised to be consistent with the requirements of NACE Standard MR0175–2003, “*Standard Material Requirements, Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments*,” Revised January 17, 2003; incorporated by reference at existing §§ 250.490 and 250.901 and NTL 2009–G31. Section 250.490 paragraph (p) currently requires that the tubing and casing be designed for NACE requirements, but incorrectly refers only to “H₂S present” as the concentration necessary to trigger this requirement. “H₂S present” is defined in existing § 250.490 paragraph (b) as “could potentially result in atmospheric concentration of 20 ppm or more of H₂S.” This proposed rule would clarify that in either “H₂S present” conditions or when H₂S concentrations in the produced fluid exceed 0.05 psi partial pressure of H₂S, the operator must use equipment that is constructed of materials with certain metallurgical properties, in accordance with NACE Standard MR0175–2003.

Subpart E—Oil and Gas Well-Completion Operations

Tubing and Wellhead Equipment (§ 250.518)

This proposed rule would revise paragraph (a) of § 250.518 to include the following:

- The tubing string must be evaluated for burst, collapse, and axial loads with appropriate safety and design factors for the pressure and temperature environments of the completion, production, shut-in, and injection load cases.
- The tubing string materials must be appropriate for the environment. The operator must follow NACE Standard MR0175–2003 (as incorporated by reference in § 250.198) when H₂S concentration may equal or exceed 0.05 psi partial pressure.
- The tubing string threaded connectors must be appropriate for the loads identified in proposed paragraph (a)(1).

These revisions would reflect essential well design elements addressed in industry standards. Current regulations discuss well design specific to casing, but little is provided for tubing design, which is equally critical for well integrity. Regulations currently establish H₂S concentrations that constitute a specific threat to personnel and establish concentrations that trigger enactment of H₂S protocols.

Additional requirements added to this section would address H₂S impacts to equipment integrity, as these components must function as barriers to personnel and the environment. Section 250.490 paragraph (p) currently requires that the tubing and casing be designed for NACE requirements, but incorrectly refers only to “H₂S present” as the concentration necessary to trigger this requirement. “H₂S present” is defined in existing § 250.490 paragraph (b) as “could potentially result in atmospheric concentration of 20 ppm or more of H₂S.” This proposed rule would clarify that, in either “H₂S present” conditions or when H₂S concentrations in the produced fluid exceed 0.05 psi partial pressure of H₂S, the operator must use equipment that is constructed of materials with certain metallurgical properties, in accordance with NACE Standard MR0175–2003.

The proposed rule would also revise paragraph (c) of this section to include the design and testing of the wellhead, tree, and related equipment in accordance with ANSI/API Spec. 6A (as incorporated by reference in § 250.198) or ANSI/API Spec. 17D (as incorporated by reference in § 250.198), as applicable. This rulemaking would also add paragraphs (c)(1), (2), and (3) to clarify that:

- Newly completed dry trees (e.g., fixed, hybrid, or mudline suspension) for production or injection wells must be equipped with a minimum of one master valve and one surface safety valve (SSV), installed above the master valve, in the vertical run of the tree.
- Newly completed subsea production or injection wells must be equipped with a minimum of one USV installed in the horizontal or vertical run of the tree (e.g., vertical, or horizontal subsea trees).
- Newly completed wells with a mudline suspension conversion to a subsea tree must have a minimum of two casing strings tied back and sealed below the tubing head. At a minimum, the production casing and the next outer casing must be tied back to the wellhead, to ensure annular isolation.

Current regulations do not address modern tree design and application. These proposed revisions would better define safety valve requirements based upon modern configuration and tree design. ANSI/API Spec. 6A is referenced extensively in Subpart H for Safety and Pollution Prevention Equipment (SPPE) equipment; by including ANSI/API Spec. 6A in this section, BSEE would reinforce the

importance of its use at the tree installation stage. ANSI/API Spec. 17D is currently applied in regulations to Blowout Preventer (BOP) Systems and Components. However, its relevance extends heavily to tree design. These proposed changes would reduce requests to use alternate procedures or equipment and reflect universal industry accepted practices for tree design and operation.

Proposed paragraph (c)(3) would also be added because ANSI/API Spec. 17D does not address mudline suspension conversion to a subsea tree with more than one casing tieback. These revisions would also codify similar language from NTL 2006 G-20, which would establish a requirement for a minimum of two casing strings tied back and sealed below the tubing head for a mudline suspension conversion to a subsea tree.

Paragraph (d) of this section would also be revised to clarify that both the subsurface safety equipment and surface safety equipment must comply with applicable requirements of Subpart H.

Subpart F—Oil and Gas Well-Workover Operations

Tubing and Wellhead Equipment (§ 250.619)

This proposed rule would revise paragraph (a) of § 250.619 to include the following:

- The tubing string must be evaluated for burst, collapse, and axial loads with appropriate safety and design factors for the pressure and temperature environments of the completion, production, shut-in, and injection load cases.
- The tubing string materials must be appropriate for the environment. The operator must follow NACE Standard MR0175–2003 (as incorporated by reference in § 250.198) when H₂S concentration may equal or exceed 0.05 psi partial pressure.
- The tubing string threaded connectors must be appropriate for the loads identified in proposed paragraph (a)(1).

These revisions would reflect essential well design elements addressed in industry standards. Current regulations discuss well design specific to casing, but little is provided for tubing design, which is equally critical for well integrity. Regulations currently establish H₂S concentrations that constitute a threat to personnel and establish concentrations that trigger enactment of H₂S protocols. Additional requirements added to this section address H₂S impacts to equipment integrity, as these components must function as barriers to personnel and the

environment. Section 250.490 paragraph (p) currently requires that the tubing and casing be designed for NACE requirements, but incorrectly refers only to “H₂S present” as the concentration necessary to trigger this requirement. “H₂S present” is defined in existing § 250.490 paragraph (b) as “could potentially result in atmospheric concentration of 20 ppm or more of H₂S.” This proposed rule would clarify that in either “H₂S present” conditions or when H₂S concentrations in the produced fluid exceed 0.05 psi partial pressure of H₂S, the operator must use equipment that is constructed of materials with certain metallurgical properties, in accordance with NACE Standard MR0175–2003.

This proposed rule would also revise paragraph (c) to include the design and testing of the wellhead, tree, and related equipment in accordance with ANSI/API Spec. 6A (as incorporated by reference in § 250.198) or ANSI/API Spec. 17D (as incorporated by reference in § 250.198), as applicable. This section would also add paragraphs (c)(1), (2), and (3) to clarify that:

- Newly completed dry trees (e.g., fixed, hybrid, or mudline suspension) for production or injection wells must be equipped with a minimum of one master valve and one SSV, installed above the master valve, in the vertical run of the tree.
- Newly completed subsea production or injection wells must be equipped with a minimum of one USV installed in the horizontal or vertical run of the tree (for vertical or horizontal subsea trees).
- Newly completed wells with a mudline suspension conversion to a subsea tree must have a minimum of two casing strings tied back and sealed below the tubing head. At a minimum, the production casing and the next outer casing must be tied back to the wellhead, to ensure annular isolation.

Paragraph (d) would also be revised to clarify that surface safety equipment must be installed, maintained, and tested in accordance with applicable sections of Subpart H, in addition to the subsurface safety equipment.

Current regulations do not address modern tree design and application. These revisions would better define safety valve requirements based upon configuration and tree design. ANSI/API Spec. 6A is referenced extensively in Subpart H for SPPE equipment. By including ANSI/API Spec. 6A into this section, BSEE would reinforce the importance of its use at the tree installation stage. ANSI/API Spec. 17D

is currently applied in regulations related to BOP systems and components; however, its relevance extends heavily to tree design. These changes would reduce requests to use alternate procedures or equipment and reflect industry accepted practices for tree design and operation.

Subpart G—Well Operations and Equipment

What information must I submit for BOP systems and system components? (§ 250.731)

This proposed rule would revise existing paragraph (c)(4) of this section to update a cross-reference to the definition of HPHT in accordance with proposed § 250.105. This revision is administrative.

What are the independent third party requirements for BOP systems and system components? (§ 250.732)

This rulemaking would revise existing paragraph (c) of § 250.732 to reflect the addition of the new or unusual technology and new or unusual technology barrier requirements in Subpart B. This rulemaking would delete the third party requirements under existing paragraph (c) because that information would be covered under the new DWOP Process requirements. These revisions would connect the HPHT permitting (e.g., APD) requirements and the DWOP Process requirements and would improve BSEE’s review and decision process. These revisions help ensure that the specified equipment is fit for service in the environmental conditions reasonably expected at the operation’s site.

The proposed revisions to this section would remove duplicative requirements now covered under the DWOP new or unusual technology barrier requirements and would provide greater detail considering that the Conceptual Plan review occurs before use of HPHT equipment and would occur before application review. This rulemaking would consolidate the language and refer to the applicable new or unusual technology barrier requirements and would specify that BSEE would require Conceptual Plan and appropriate permit approval before equipment installation. This addition would provide clarification to operators unfamiliar with the applicable DWOP requirements.

Subpart H—Oil and Gas Production Safety Systems
Additional Requirements for Subsurface Safety Valves (SSSVs) and Related Equipment Installed in High Pressure High Temperature (HPHT) Environments (§ 250.804)

This rulemaking proposes to remove and reserve this section. The existing requirements from this section would be addressed under proposed §§ 250.105 and 250.204.

III. Additional Comments Solicited

In addition to public comments on the revisions proposed under this rulemaking, BSEE is soliciting comments on the following issues:

A. Additional Industry Standards To Consider for Incorporation

BSEE is seeking information regarding any existing industry standards that address qualification of new technology barrier equipment that should be considered for incorporation into the regulations. Please provide any rationale for BSEE to consider incorporation.

B. Fluid as a Conditional Temporary Barrier

BSEE is considering adding the following into the final rule:

“BSEE may consider wellbore fluids as a temporary barrier if you meet the following criteria:

- (1) BOP systems and related equipment are installed in accordance with the approved operation on the well and can be actuated on demand;
- (2) The density of the wellbore fluid is known and creates a pressure greater than the source pressure;
- (3) The elevation of the wellbore fluid level is known;
- (4) The fluid pit volumes are continuously monitored for increases and the well for flow; and

(5) The well must be continuously monitored during well operations and must not be left unattended at any time unless the well is shut in and secured.

Once well bore fluids are isolated below a mechanical barrier, they are no longer considered a barrier.”

BSEE is soliciting comments on the appropriateness of promulgating these provisions in the final rule. Additionally, BSEE is soliciting comments that identify any other conditions that should be considered when determining whether to use fluid as a temporary barrier. Please provide supporting reasons and data for your comments.

C. Economic Data

The compliance costs and savings in the initial regulatory impact analysis (IRIA) are BSEE's best estimates based on experience with the current DWOP process, stakeholder interactions, and communication with industry. BSEE is requesting comments related to the appropriateness and accuracy of the compliance costs and benefits identified in the IRIA. Please provide supporting reasons and data for your comments.

IV. Derivation Table

The following table is intended to provide information about the derivation of proposed requirements in Subparts B. This table provides guidance on the following:

- The destination of various existing requirements.
- The organization and content of the proposed revisions.

This table does not provide definitive or exhaustive guidance and should be used in conjunction with the section-by-section discussion and regulatory text of this proposed rule.

The proposed rule would make changes as outlined in the following table:

Current regulations section	Proposed rule section	Nature of change
Subpart A:		
250.804	250.105	Would move the definition of HPHT to make it applicable to all operations, not just production
Subpart B:		
250.200	250.200	Would add definitions for barrier categorization, primary and secondary barriers, and new or unusual technology.
250.201	250.201	Would add information about the three new conceptual plans and when submittal of each plan is required.
250.204	250.202	Moved without revision.
250.205	250.203	Moved without revision.
New	250.204	Would clarify what information must be submitted to BSEE if an operator plans to install HPHT barrier equipment.
New	250.206	Would codify some of the barrier concepts from existing BSEE guidance.
New	250.207	Would require the installation and maintenance of a primary and secondary barrier system to contain the source.
550.280	250.208	Would include similar content with minor formatting changes to reflect BSEE applicability.
550.281(a) and (b)	250.209	Would include similar content with minor formatting changes to reflect BSEE applicability.
250.282	250.210	Would include similar content with minor formatting changes to reflect BSEE applicability.
New	250.211	Would clarify the new or unusual technology failure reporting requirements.
250.286	250.220	Would clarify the addition of new or unusual technology, and the operations that could be covered under the DWOP Process.
250.287	250.221	Would include similar content and clarify when the DWOP Process is applicable.
New	250.225	This rulemaking would add this section to identify the 3 new proposed conceptual plans.
250.288 and 250.290	250.226	Would include similar content and clarify when to submit the applicable conceptual plans.
250.289	250.227	Would include content from existing paragraphs (a), (b), (c), (i)(1), and specify the content of the Project Conceptual Plan.
New	250.228	Would specify the content of the New or Unusual Technology Conceptual Plan.
New	250.229	Would specify the content of the New or Unusual Technology Barrier Conceptual Plan.
New	250.230	Would specify the I3P nomination requirements.

Current regulations section	Proposed rule section	Nature of change
New	250.231	Would specify the I3P requirements for applicable conceptual plan review.
New	250.232	Would clarify the I3P report expectations.
250.291	250.235	Would include similar content and clarify DWOP submittals to reflect new or unusual technology additions.
New	250.236	Would add a table listing the applicable sections with corresponding information for the DWOP content.
250.292	250.237	Would include content from existing paragraphs (a), (b) and clarify the general DWOP requirements.
250.292	250.238	Would include content from existing paragraphs (a), (b), (c) and clarify the completions information DWOP requirements.
250.292	250.239	Would include content from existing paragraphs (a), (b), (c) and clarify the structural information DWOP requirements.
250.292	250.240	Would include content from existing paragraphs (a), (b), (c), (d), (e)(3) and clarify the production safety system information DWOP requirements.
250.292	250.241	Would include content from existing paragraphs (c)(2)(i), (ii), (iii) and clarify the subsea systems and pipeline information DWOP requirements.
New	250.242	Would clarify the new or unusual technology information DWOP requirements.
250.294	250.245	Would include similar content and clarify when an operator can combine the conceptual plan and the DWOP.
250.295	250.246	Would include similar content and clarify when a revised DWOP is necessary.
New	250.247	Would clarify when a supplemental DWOP is necessary.
New	250.248	Would clarify the content of a supplemental DWOP.

V. Procedural Matters

Regulatory Planning and Review (Executive Orders (E.O.) 12866 and 13563)

E.O. 12866, *Regulatory Planning and Review* provides that OMB's Office of Information and Regulatory Affairs (OIRA) will review all significant regulatory actions. A significant regulatory action is one that is likely to result in a rule that:

- 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;
- Creates serious inconsistency or otherwise interferes with an action taken or planned by another agency;
- Materially alters the budgetary impacts of entitlement grants, user fees, loan programs, or the rights and obligations of recipients thereof; or
- Raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

BSEE has concluded that this proposed rule is not likely to be a significant action under E.O. 12866. In particular, it is estimated that this proposed rule would not have an annual economic impact of \$100 million or more and would not have a material adverse effects or raise novel issues.

In support of that conclusion, BSEE prepared an IRIA to assess the anticipated costs and potential benefits of the proposed rulemaking. The IRIA estimates that the increase in

annualized costs, compared with the baseline in the absence of the proposed rule, is \$2.9 million per year. Over the period 2021–2030, those costs are estimated to have a total present value of \$29.0 million undiscounted, \$24.7 million discounted at 3 percent, and \$20.4 million discounted at 7 percent. The IRIA for this proposed rulemaking can be found in the docket at <https://www.regulations.gov/> (Docket ID: BSEE-2021-0003).

As required by the Independent Offices Appropriation Act (IOAA), as amended (31 U.S.C. 9701), the proposed rule would establish new fees for BSEE's review and processing of several types of operator submissions and reports. This rulemaking would add service fees for processing a Project Conceptual Plan, New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, revised DWOP, Combined Conceptual Plan/DWOP, and Supplemental DWOP. This rulemaking would also revise the cost recovery fee amount for DWOP review. The proposed rule would increase, and not adversely affect, the government's receipt of user fees. BSEE's economic analysis projects that, altogether, the fees anticipated to be collected under the proposal over a 10-year period (2021–2030) would exceed the baseline fees collected by approximately \$7.8 million (undiscounted).

The rulemaking would improve operational and environmental safety and human health for deepwater development projects and other projects or systems that use new or unusual technology, not only by providing

clarity and regulatory certainty regarding the information submission process, but also by ensuring that additional regulatory requirements and that New or Unusual Technology Barrier Conceptual Plans are reviewed by I3Ps, as well as providing BSEE discretion to require I3P review of New or Unusual Technology Conceptual Plans. In a detailed analysis of the costs and benefits of the proposed regulation, BSEE has estimated the increased costs for industry and government relating to the enhanced plan preparation and submission requirements. Anticipated costs to industry and government were estimated assuming current rules and practices and contrasted with the proposed rule. Combined costs over 2021–2030 totaled \$38.1 million with current rules and practices versus \$67.1 million with the proposed rule, implying annualized cost increases of \$2.9 million discounted at 3% or 7%. BSEE has not quantified the benefits of the new submission process, the new requirements for new or unusual technology projects, including HPHT projects, and I3P reviews. BSEE believes that updating references to industry standards and by giving greater clarity to requirements for submissions for new or unusual technology and HPHT projects and plans, the proposed rule promotes the objectives of E.O. 13563, including a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify).

Executive Order 13563, *Improving Regulation and Regulatory Review*, 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. 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. E.O. 13563 emphasizes further 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 have developed this proposed rule in a manner consistent with these requirements.

Regulatory Flexibility Act and Small Business Regulatory Enforcement Fairness Act

The *Regulatory Flexibility Act* (RFA), 5 U.S.C. 601–612, requires agencies to analyze the economic impact of regulations when there is likely to be a significant economic impact on a substantial number of small entities, and allows an agency to certify a rule, in lieu of preparing an analysis, if the regulation will not have such an economic impact. Further, the *Small Business Regulatory Enforcement Fairness Act* of 1996 (SBREFA), Public Law 104–121, (March 29, 1996), as amended, requires agencies to produce compliance guidance for small entities if the rule has a significant economic impact on a substantial number of small entities.

BSEE considers that a rule will have an impact on a “substantial number of small entities” when the total number of small entities impacted by the rule is equal to or exceeds 10 percent of the relevant universe of small entities in a given industry. The relevant small-size criteria for affected operators and firms likely to help prepare reports are presented in Table 1 below.

TABLE 1—SMALL-ENTITY CRITERIA FOR AFFECTED FIRMS

Industry sector	Small-entity criteria
211120 Crude petroleum extraction.	1250 employees.
211130 Natural gas extraction.	1250 employees.
213111 Drilling oil and gas wells.	1000 employees.
541330 Engineering services (for the I3P or other reports).	\$16.5 million/year revenues.

Using these criteria, BSEE estimates that about 23 companies would be affected by the proposed rule over the next 10 years (2021–2030), of which approximately 12 (52 percent) of the potentially impacted businesses are considered small; the rest are considered large businesses. All of the operating businesses meeting the U.S. Small Business Administration classification are potentially impacted; therefore, BSEE expects that the rule will affect a substantial number of small entities.

As noted in the E.O. 12866 discussion, the amendments will result in increased costs to firms from HPHT and new or unusual technology reporting requirements and increased service fees, including mandatory I3P nominations and reports. The increase in cost borne by industry includes cost of submissions, preparation, and cost recovery fees. BSEE has evaluated quantifiable costs and benefits and has estimated that there are quantified costs to industry from the proposed provisions. BSEE has estimated the annualized industry costs by business size in Table 2. The percent of the total industry cost impacts to small operators was estimated based on their percentage of overall revenues. These revenues were estimated by applying Census Statistics of U.S. Businesses revenue estimates by employment ranges to each

impacted operator. Based on historical information, BSEE estimates that small companies will bear 8 percent of the industry costs from this rule and large companies will bear the remaining 92 percent.

TABLE 2—TOTAL 10-YEAR INDUSTRY COSTS ASSOCIATED WITH RULE-MAKING

[2021–2030]
[Undiscounted annualized \$]

Company size	Percent of revenues	Industry rulemaking costs (\$)
Small Companies	8	169,977
Large Companies	92	1,954,737
Total	100	2,124,715

The average industry cost and revenue per firm were derived from data presented in Table 2 and the numbers of firms classified as small or large. This is presented in Table 3, which illustrates that on a per-firm basis the new reporting costs that would be imposed on small firms by the new requirements, at \$14,165 per year, would represent approximately 0.005 percent of revenue. That is deemed to be not a significant impact. BSEE therefore projects that the proposed rule is not likely to have a significant economic impact on a substantial number of small entities. Although it is not likely required because of this projection, BSEE has conducted an initial regulatory flexibility analysis (IRFA) which provides information on the impact of the proposed rule on small entities; it is contained in the IRFA which can be found in the docket at <https://www.regulations.gov/> (Docket ID: BSEE–2021–0003).

TABLE 3—AVERAGE ANNUAL INDUSTRY COST AND REVENUE PER FIRM
[Undiscounted annualized \$]

Company size	Count	Average annualized industry cost per firm	Average annual revenue per firm	Cost as percent of revenue
Small Companies	12	\$14,165	\$283,524,338	0.005
Large Companies	11	177,703	3,555,005,441	0.005

The proposed rule is not a major rule under the *Small Business Regulatory Enforcement Fairness Act*. To be a major rule for that purpose, it must have an annual effect on the economy of \$100

million or more, cause a major increase in costs or prices, or have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based

enterprises to compete with foreign-based enterprises. The increase of cost noted earlier, \$2.9 million per year, would not have a significant adverse effect in terms of this Act.

Unfunded Mandates Reform Act of 1995

This proposed rule would not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than \$100 million per year. The proposed rule would not have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by Unfunded Mandates Reform Act (2 U.S.C. 1531 *et seq.*) is not required.

Takings Implication Assessment (E.O. 12630)

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

Federalism (E.O. 13132)

Under the criteria in E.O. 13132, this proposed rule does 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.

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 section 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 section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

Consultation With Indian Tribes (E.O. 13175)

BSEE is committed to regular and meaningful consultation and collaboration with tribes on policy decisions that have tribal implications. Under the criteria in E.O. 13175 and DOI's Policy on Consultation with Indian Tribes (Secretarial Order 3317, Amendment 2, dated December 31, 2013), we have evaluated this proposed rule and determined that it has no substantial direct effects on federally recognized Indian tribes.

National Technology Transfer and Advancement Act (NTTAA)

BSEE complies with the National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 3701 *et seq.*)

requirement that an agency "use standards developed or adopted by voluntary consensus standards bodies rather than government-unique standards, except where inconsistent with applicable law or otherwise impractical." (OMB Circular A-119 at p. 13). BSEE also complies with the Office of the Federal Register (OFR) regulations governing incorporation by reference. (See, 1 CFR part 51.) Those regulations also specify the process for updating an incorporated standard at § 51.11(a), and BSEE complies with those requirements, including seeking approval by OFR for a change to a standard incorporated by reference in a final rule.

Paperwork Reduction Act (PRA) of 1995

This proposed rule contains existing and new information collection (IC) requirements for regulations at 30 CFR part 250, subpart B and submission to the OMB for review under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is required. Therefore, BSEE will submit an IC request to OMB for review and approval and will request a new OMB control number. Once the 1014-AA49 final rule is effective, we will transfer the hour burden and non-hour costs burden from 1014-NEW to 1014-0024 (44,458 hours, \$68,381 non-hour cost burden, expiration October 31, 2021) 30 CFR part 250, subpart B, *Plans and Information*, then discontinue the new number associated with this rulemaking. We may not conduct or sponsor, and you are not required to respond to, a collection of information, unless it displays a currently valid OMB control number.

The proposed regulations would establish new and/or revise current requirements in Subpart B, *Plans and Information*, by revising regulations regarding the Deepwater Operations Plan (DWOP) Process and information submittal and approval process, which includes Conceptual Plans and DWOPs; adding requirements for HPHT barrier equipment and systems and new or unusual technology; and requiring, or providing BSEE with the option to require, independent third party reviews of Conceptual Plans and DWOPs.

The following provides a breakdown of the paperwork hour burdens and non-hour cost burdens for this proposed rule. While some sections are being moved from existing Subpart B requirements, it is noted that the burden in proposed § 250.210 (current § 250.282) is covered under BOEM's 1010-0151. Accordingly, a new burden for BSEE is being added.

As discussed in the Section-by-Section analysis above, and in the supporting statement available at *RegInfo.gov*, this rule proposes to add/review:

[New requirements due to the proposed rule are shown in **bold**]

§ 250.210—This section would be revised and moved from existing § 250.282. It would include minor revisions to clarify that the Regional Supervisor may direct operators to conduct monitoring programs in association with their approved EP, DPP, DWOP, or DOCD (+ 12 burden hours).

§ 250.211—This section is new and would clarify the new or unusual technology failure reporting requirements and would require notification to BSEE within 30 days of the failure and provision of a written report identifying the root causes of the failure (+ 400 burden hours).

§ 250.221(b)—This section would be revised and moved from existing § 250.287. It would clarify that the DWOP Process is applicable to any project that will include the use of new or unusual technology (+ 6 burden hours).

§ 250.226—This section would be revised and moved from existing §§ 250.288 and 250.290. It would add two new Conceptual Plans: New or Unusual Technology Conceptual Plan and New or Unusual Technology Barrier Conceptual Plan. There are also three new Cost Recovery Fees (250.125—Service Fees) associated with each conceptual plan (+ 39 burden hours and \$1,276,600 non-hour costs burden).

§ 250.227—This section would be revised and moved from existing § 250.289. It would list additional information to be submitted with a Project Conceptual Plan and would add new Independent Third Party (I3P) costs for various reviews, certifications, verifications, etc. (+ 320 burden hours and \$37,776 non-hour costs burden).

§ 250.228—This section is new and would list the various submissions required with a New or Unusual Technology Conceptual Plan and would add new I3P costs for various reviews, certifications, verifications, etc. (+ 3,600 burden hours and \$676,130 non-hour costs burden).

§ 250.229—This section is new and lists the various submissions required with a New or Unusual Technology Barrier Conceptual Plan and would add new I3P costs for various reviews, certifications, verifications, etc. (+ 9,360 burden hours and \$2,955,719 non-hour costs burden).

§ 250.230—This section is new and would outline the requirements for the

operator to nominate an I3P to be used in conjunction with applicable conceptual plans, including that the I3P must be a technical classification society, a licensed professional engineering firm, or a registered professional engineer capable of providing the required certifications and verifications (+ 9 burden hours).

§ 250.231(a)—This section is new and would add the required information that the I3P is to review (+ 16,660 burden hours).

§§ 250.231(b); 250.232—This section is new and would require the I3P to submit a report documenting the review of each item and identify all OEM and operator documents used during the reviews (+ 60 burden hours).

§§ 250.231(c), (d); 250.232—This section is new and would require the I3P to submit a final report that summarizes each review requirement under (a) of this section and would also require the summary report to include the equipment and/or system's technical specifications, including a certification statement that the equipment and/or system is fit for purpose for the technical specification by the I3P, and verification that the equipment's technical specifications meet or exceed the project's functional requirements including a certification statement that the equipment and/or system is fit for purpose (+ 9 burden hours).

§§ 250.235; 250.236; 250.237; 250.238; 250.239; 250.240; 250.241; 250.242; 250.243; 250.204; and 732(c)—These sections would be revised and moved from existing §§ 250.291 and 250.292. These would identify when and how to submit a DWOP; and what general information, well or completions information, structural information, Production Safety System information, subsea systems, and pipeline information to submit with DWOPs (+ 1,070 burden hours and \$194,655 non-hour costs burden).

§ 250.245—This section would be revised and moved from existing § 250.294. It would be revised to clarify that operators may submit a combined Conceptual Plan/DWOP, with all applicable requirements for both, on or before the deadline for submitting the Conceptual Plan (+ 428 burden hours and \$17,918 non-hour costs burden).

§ 250.246—This section would be revised and moved from existing § 250.295. It would be revised to clarify when a revision to a Conceptual Plan or DWOP is necessary (+ 80 burden hours and \$1,792 non-hour costs burden).

§§ 250.247; 250.248—This section is new and would identify when an operator must supplement the DWOP to reflect additions or changes in the

development project and would add the required information that must be included in the supplement to the DWOP. It would also require a supplement to the DWOP when a project change involves the addition of any new or unusual technology that was not previously covered under the New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, or DWOP (+ 3,990 burden hours and \$736,200 non-hour costs burden).

Title of Collection: 30 CFR part 250, subpart B, *Plans and Information*.

OMB Control Number: 1014-NEW.

Form Number: None.

Type of Review: New.

Respondents/Affected Public:

Potential respondents comprise Federal OCS oil, gas, and sulfur lessees/operators and holders of pipeline rights-of-way.

Total Estimated Number of Annual Respondents: Currently there are approximately 60 oil and gas drilling and production operators in the OCS. Not all the potential respondents would submit information at any given time, and some may submit multiple times.

Total Estimated Number of Annual Responses: 304.

Estimated Completion Time per Response: Varies from 15 minutes to 980 hours depending on activity.

Total Estimated Number of Annual Burden Hours: 36,043.

Respondent's Obligation: Responses are mandatory.

Frequency of Collection: Generally, on occasion and as required in the regulations.

Total Estimated Annual Nonhour Burden Cost: \$5,944,006.

This rule is also proposing edits and citation updates to §§ 250.731(c) and 250.732(c). No burden changes are being proposed.

In addition, the PRA requires agencies to estimate the total annual reporting and recordkeeping non-hour cost burden resulting from the collection of information, and we solicit your comments on this item. 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 service component. Your estimates should consider the cost 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 information collection; (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.

As part of our continuing effort to reduce paperwork and respondent burdens, we invite the public and other Federal agencies to comment on any aspect of this information collection, including:

(1) Whether the collection of information is necessary, including whether the information will have practical utility;

(2) The accuracy of our estimate of the burden for this collection of information;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of the collection of information on respondents.

Send your comments and suggestions on this information collection by the date indicated in the **DATES** section to the Desk Officer for the Department of the Interior at OMB–OIRA at (202) 395–5806 (fax) or via the *RegInfo.gov* portal (online). You may view the information collection request(s) at <https://www.reginfo.gov/public/do/PRAMain>. Please provide a copy of your comments to the BSEE Information Collection Clearance Officer (see the **ADDRESSES** section). You may contact Kye Mason, BSEE Information Collection Clearance Officer at (703) 787–1607 with any questions. Please reference Proposed Rule 1014-AA49, Oil and Gas and Sulfur Operations in the Outer Continental Shelf—30 CFR 250, Subpart B, *Plans and Information* (OMB Control No. 1014–NEW), in your comments.

National Environmental Policy Act of 1969 (NEPA)

BSEE is proposing to cover this action under a National Environmental Policy Act of 1969 (NEPA) categorical exclusion (see 43 CFR 46.205). BSEE believes it meets the criteria set forth at 43 CFR 46.210(i) for a Departmental Categorical Exclusion in that this proposed rule is “. . . of an administrative, financial, legal, technical, or procedural nature” Further, we have preliminarily determined that the proposed rule does not involve any of the extraordinary circumstances listed in 43 CFR 46.215 that would require further analysis under NEPA. The proposed rule does not authorize any activities on the OCS.

The proposed rule involves the review of concepts and specialized requirements associated with deepwater needs (special moorings, fittings, production equipment, HPHT items, etc.); however, actual approval of Conceptual Plans and DWOPs are for administrative purposes and do not directly lead to OCS activity that can result in environmental impacts. The Conceptual Plans and DWOPs only lead to an action once they are included and addressed in an Exploration Plan (EP), Development Operations Coordination Document (DOCD), or Development and Production Plan (DPP) and subsequent permit applications. EPs, DOCDs, DPPs, as well as the subsequent well and facility permit applications, are reviewed under site-specific NEPA analyses. Only EPs, DOCDs, and DPPs include the detailed regulatory requirements to fully assess environmental impacts. If an operator chooses to modify their Conceptual Plans, DWOPs, or proposed technology or submit a new one for an activity that has already been reviewed and approved under the respective EP, DOCD, or DPP, then the operator must submit a revised EP, DOCD, or DPP as per 30 CFR 550.283, which would undergo additional NEPA analysis.

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, sec. 515, 114 Stat. 2763, 2763A-153-154).

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

This proposed rule is not a significant energy action under the definition in E.O. 13211. Although the rule is a significant regulatory action under E.O. 12866, it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. A Statement of Energy Effects is not required.

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 feel that 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 feel lists or tables would be useful.

Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. In order for BSEE to withhold from disclosure your personal identifying information, you must identify any information contained in your comment submittal that, if released, would constitute a clearly unwarranted invasion of your personal privacy. You must also briefly describe any possible harmful consequence(s) of the disclosure of information, such as embarrassment, injury, or other harm. While you may request that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

List of Subjects in 30 CFR Part 250

Administrative practice and procedure, Continental shelf, Environmental impact statements, Environmental protection, Government contracts, Incorporation by reference, Investigations, Oil and gas exploration, Outer Continental Shelf—mineral resources, Outer Continental Shelf—rights-of-way, Penalties, Pipelines, Reporting and recordkeeping requirements, Sulfur.

Laura Daniel-Davis,

Principal Deputy Assistant Secretary, Land and Minerals Management.

For the reasons stated in the preamble, the Bureau of Safety and Environmental Enforcement (BSEE) is proposing to amend 30 CFR part 250 as follows:

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

- 1. The authority citation for part 250 continues 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.

Subpart A—General

- 2. Amend § 250.105 by adding definitions for “BOP systems and related equipment” and “HPHT environment” in alphabetical order to read as follows:

§ 250.105 Definitions.

* * * * *

BOP systems and related equipment includes all pressure controlling and pressure containing well control equipment that may or will be exposed to the well's MASP during drilling, completion, workover, intervention, or abandonment. Well control equipment includes equipment that is installed for the purpose of pressure control and containment when it becomes necessary to physically enter a well bore during drilling, completion, workover, intervention, or abandonment modes of operation.

* * * * *

HPHT environment means when one or more of the following well conditions exist:

- (1) The drilling, completion, workover, intervention, injection, production, or abandonment of the well requires pressure controlling or pressure containing equipment, including well control equipment, assigned a pressure rating greater than 15,000 psia or a temperature rating greater than 350 degrees Fahrenheit;

- (2) The MASP or SITP is greater than 15,000 psia on the seafloor for a well with a subsea wellhead or at the surface for a well with a surface wellhead; or

- (3) The flowing temperature is greater than 350 degrees Fahrenheit on the seafloor for a well with a subsea wellhead or at the surface for a well with a surface wellhead.

* * * * *

- 3. Amend § 250.125 by revising paragraph (a)(2) to read as follows:

§ 250.125 Service fees.

(a) * * *

Service—processing of the following	Fee amount	30 CFR citation
*	*	*
(2) Deepwater Operations Plan (DWOP) process:		
(i) Project Conceptual Plan	\$2,510	250.226.
(ii) New or Unusual Technology Conceptual Plan	32,611	250.226.
(iii) New or Unusual Technology Barrier Conceptual Plan	71,570	250.226.
(iv) DWOP	13,907	250.235.
(v) Revised DWOP	896	250.246.
(vi) Combined Conceptual Plan/DWOP	8,959	250.245.
(vii) Supplemental DWOP	8,959	250.247.
*	*	*

■ 4. Amend § 250.198 by revising the introductory text and paragraphs (e)(82), (86), (91), and (i)(1) to read as follows:

§ 250.198 Documents incorporated by reference.

Certain material is incorporated by reference into this [chapter/subchapter/part/subpart] with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at BSEE and at the National Archives and Records Administration (NARA). Contact BSEE at: the Houston BSEE office at 1919 Smith Street Suite 14042, Houston, Texas 77002; 1-844-259-4779. For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html. The material may be obtained from the following source(s):

* * * * *

(e) * * *

(82) ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, Twentieth Edition, October 2010; Addendum 1, November 2011; Errata 2, November 2011; Addendum 2, November 2012; Addendum 3, March 2013; Errata 3, June 2013; Errata 4, August 2013; Errata 5, November 2013; Errata 6, March 2014; Errata 7, December 2014; Errata 8, February 2016; Addendum 4, June 2016; Errata 9, June 2016; Errata 10, August 2016; incorporated by reference at §§ 250.518(c), 250.619(c), 250.730, 250.802(a), 250.803(a), 250.833, 250.873(b), 250.874(g), and 250.1002(b);

* * * * *

(86) ANSI/API Spec. 11D1, Packers and Bridge Plugs, Third Edition, April 2015; Errata 1, August 2019; incorporated by reference at §§ 250.518(e), 250.619(e), and 250.1703;

* * * * *

(91) ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree

Equipment, Second Edition, May 2011; incorporated by reference at §§ 250.518(c), 250.619(c), and 250.730;

* * * * *

(1) NACE Standard MR0175–2003, Standard Material Requirements, Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments, Revised January 17, 2003; incorporated by reference at §§ 250.490, 250.518(a), 250.619(a), and 250.901;

* * * * *

■ 5. Revise Subpart B to read as follows:

Subpart B—Plans and Information

General Information

Sec.

250.200 Definitions.

250.201 What plans and information must I submit before I conduct any activities on my lease or unit?

250.202 How must I protect the rights of the Federal government?

250.203 Are there special requirements if my well affects an adjacent property?

250.204 Requirements for high pressure high temperature (HPHT) barrier equipment.

250.205 [Reserved]

Barrier Equipment and Systems

250.206 What equipment does BSEE consider to be a Barrier?

250.207 How must barrier systems be used?

Activities and Post-Approval Requirements for the EP, DPP, DWOP, and DOCD

250.208 How must I conduct activities under an approved EP, DPP, or DOCD?

250.209 What must I do to conduct activities under the approved EP, DPP, or DOCD?

250.210 Do I have to conduct post-approval monitoring?

250.211 What are my new or unusual technology failure reporting requirements?

250.212–250.219 [Reserved]

Deepwater Operations Plan (DWOP) Process

250.220 What is the DWOP Process?

250.221 When must I use the DWOP Process?

250.222–250.224 [Reserved]

Conceptual Plans

250.225 What are the types of Conceptual Plans that I must submit?

250.226 When and how must I submit each applicable Conceptual Plan?

250.227 What must the Project Conceptual Plan contain?

250.228 What must the New or Unusual Technology Conceptual Plan contain?

250.229 What must the New or Unusual Technology Barrier Conceptual Plan include?

250.230 What are your requirements for the Independent Third Party (I3P) nomination?

250.231 What are the I3P review requirements for Conceptual Plan reviews?

250.232 General requirements for any I3P Report.

DWOP Approval

250.235 When and how must I submit the DWOP?

250.236 What information must I submit with the DWOP?

250.237 What general information must my DWOP include?

250.238 What well or completions information must my DWOP include?

250.239 What structural information must my DWOP include?

250.240 What Production Safety System information must my DWOP include?

250.241 What subsea systems and pipeline information must my DWOP include?

250.242 What new or unusual technology information must my DWOP include?

250.243 and 250.244 [Reserved]

250.245 May I combine the Conceptual Plan and the DWOP?

250.246 When must I revise my DWOP?

250.247 When must I supplement my DWOP?

250.248 What information must I include in my Supplemental DWOP?

Subpart B—Plans and Information

General Information

§ 250.200 Definitions.

Acronyms and terms used in this subpart have the following meanings:

(a) Acronyms used frequently in this subpart are listed alphabetically below:

BOEM means Bureau of Ocean Energy Management of the U.S. Department of the Interior.

BSEE means Bureau of Safety and Environmental Enforcement of the U.S. Department of the Interior.

CID means Conservation Information Document.

CZMA means Coastal Zone Management Act.

DOCD means Development Operations Coordination Document.

DPP means Development and Production Plan.

DWOP means Deepwater Operations Plan.

EIA means Environmental Impact Analysis.

EP means Exploration Plan.

ESA means Endangered Species Act.

HPHT means High Pressure High Temperature

MMPA means Marine Mammal Protection Act.

NPDES means National Pollutant Discharge Elimination System.

NTL means Notice to Lessees and Operators.

OCS means Outer Continental Shelf.

(b) Terms used in this subpart are listed alphabetically below:

Amendment means a change you make to an EP, DPP, or DOCD that is pending before BOEM for a decision (see 30 CFR 550.232(d) and 550.267(d)).

Barrier categorization includes identifying barriers as one of the following two types of categories:

Category 1 Barrier means any equipment, component, or assembly that functions as part of a primary

barrier system during any operational phase of its life cycle. The operational phases of the barrier equipment, component, or assembly are drilling, completion, workover, intervention, injection, production, or abandonment.

Category 2 Barrier means any equipment, component, or assembly that normally functions as part of a secondary barrier system in all operational phases of its life cycle, except when a primary barrier fails. The operational phases of the barrier equipment, component, or assembly are drilling, completion, workover, intervention, injection, production, or abandonment. BSEE may consider non-barrier structural components of a barrier system as Category 2 barrier if failure of this structural component could reasonably result in a barrier failure.

Primary Barrier system means the component or group of components that is designated as the principal means of isolating the source of hydrocarbons and/or pressure from people and the environment.

Secondary Barrier system means the component or group of components that is designated as the secondary means of isolating the source of hydrocarbons and/or pressure from people and the environment.

New or unusual technology means equipment or procedures used for any drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment operations that meet any of the following criteria:

(1) Have not been approved for use or used extensively in a BSEE OCS Region;

(2) Have not been approved for use or used extensively under the anticipated operating conditions;

(3) Have operating characteristics that are outside the performance parameters established in 30 CFR part 250;

(4) Will operate in an HPHT environment as defined in § 250.105; or

(5) Is part of a primary or secondary barrier system that uses materials, design analysis techniques, validation testing methods, or manufacturing processes not addressed in existing industry standards.

Subsea tieback development technology means, but is not limited to, floating production systems, tension leg platforms, spars, Floating Production Storage and Offloading Vessel (FPSO) systems, guyed towers, compliant towers, subsea manifolds, subsea wells, hybrid wells, and other subsea completion or production components that rely on a remote site or host facility for utility and well control services.

§ 250.201 What plans and information must I submit before I conduct any activities on my lease or unit?

(a) Plans and permits. Before you conduct the activities on your lease or unit listed in the following table, you must submit, and BSEE must approve, the listed plans, and any applicable permits. Your plans and applicable permits may cover one or more leases or units.

You must have BSEE approval of a(n) . . .	Before you . . .	Additional information
(1) New or Unusual Technology Conceptual Plan.	install the new or unusual technology	Must be approved before any associated application or permit (e.g., pipeline, platform, APD, APM) approval.
(2) New or Unusual Technology Barrier Conceptual Plan.	install the new or unusual technology barrier equipment	(i) Is required for any project or system involving new or unusual technology that is also identified as a primary or secondary barrier. (ii) Must be approved before any associated application or permit (e.g., pipeline, platform, APD, APM) approval.
(3) Project Conceptual Plan	conduct post-drilling installation or well completion activities for a deepwater development project, or for any project that will involve the use of a subsea tieback development technology in any water depth.	Must be approved before well completion permit (e.g., APM) approval.
(4) Deepwater Operations Plan (DWOP),	(i) conduct post-completion installation activities for a deepwater development project, or for any project that will involve the use of a subsea tieback development technology in any water depth, which may include new or unusual technology, or new or unusual technology barrier equipment; and. (ii) initiate production activities	Must include reference to all applicable, previously approved Conceptual Plans for the associated development project.

(b) Submitting additional information. On a case-by-case basis, the Regional Supervisor may require you to submit additional information if the Regional Supervisor determines that it is necessary to evaluate your proposed plan or permit.

(c) Referencing. In preparing your proposed plan or permit, you may reference information and data discussed in other plans or permits you previously submitted or that are otherwise readily available to BSEE.

§ 250.202 How must I protect the rights of the Federal government?

(a) To protect the rights of the Federal government, you must either:

(1) Drill and produce the wells that the Regional Supervisor determines are necessary to protect the Federal government from loss due to production on other leases or units or from adjacent lands under the jurisdiction of other entities (e.g., State and foreign governments); or

(2) Pay a sum that the Regional Supervisor determines as adequate to compensate the Federal government for your failure to drill and produce any well.

(b) Payment under paragraph (a)(2) of this section may constitute production in paying quantities for the purpose of extending the lease term.

(c) You must complete and produce any penetrated hydrocarbon-bearing zone that the Regional Supervisor determines is necessary to conform to sound conservation practices.

§ 250.203 Are there special requirements if my well affects an adjacent property?

For wells that could intersect or drain an adjacent property, the Regional Supervisor may require special measures to protect the rights of the Federal government and objecting lessees or operators of adjacent leases or units.

§ 250.204 Requirements for high pressure high temperature (HPHT) barrier equipment.

If you plan to install HPHT barrier equipment, you must submit information with your applicable permit and/or application, New or Unusual Technology Barrier Conceptual Plan, and/or DWOP that demonstrates the equipment is fit for service in the applicable HPHT environment. You must follow the applicable DWOP Process requirements, including §§ 250.229 and 250.242.

§ 250.205 [Reserved]

Barrier Equipment and Systems

§ 250.206 What equipment does BSEE consider to be a Barrier?

A barrier or barrier system is any engineered equipment, materials, component, or assembly that is installed to contain a hydrocarbon or other pressure source(s) to prevent harm to people or the environment. BSEE only recognizes barriers (non-mechanical or mechanical in nature) that are either permanently or temporarily installed, pressure controlling, and/or pressure containing. Pressure controlling barriers must be able to be activated on demand. You must be able to function and/or pressure test your barriers or barrier systems to a defined acceptance criteria that can be repeated. If the barrier or barrier system is classified as Safety and Pollution Prevention Equipment (SPPE) (as described under § 250.801(a)), then it must also meet the leak test requirements established in Subpart H.

§ 250.207 How must barrier systems be used?

You must install and maintain a primary and a secondary barrier system (redundant barriers) to prevent a loss of containment during any operational phase of a well, flowline, pipeline, production, or riser system.

Activities and Post-Approval Requirements for the EP, DPP, DWOP, and DOCD

§ 250.208 How must I conduct activities under an approved EP, DPP, or DOCD?

(a) *Compliance.* You must conduct all of your lease and unit activities according to your approved EP, DPP, or DOCD and any approval conditions. If you fail to comply with your approved EP, DPP, or DOCD:

(1) You may be subject to BSEE enforcement action, including civil penalties; and

(2) The lease(s) involved in your EP, DPP, or DOCD may be forfeited or cancelled under 43 U.S.C. 1334(c) or (d). If this happens, you will not be entitled to compensation under § 550.185(b) and 30 CFR 556.77.

(b) *Emergencies.* Nothing in this subpart or in your approved EP, DPP, or DOCD relieves you of, or limits your responsibility to take appropriate measures to meet emergency situations. In an emergency situation, the Regional Environmental Officer may approve or require departures from your approved EP, DPP, or DOCD.

§ 250.209 What must I do to conduct activities under the approved EP, DPP, or DOCD?

(a) *Approvals and permits.* Before you conduct activities under your approved EP, DPP, or DOCD you must obtain the following approvals and or permits, as applicable, from the District Manager or BSEE Regional Supervisor:

(1) Approval of Applications for Permits to Drill (APDs) (see 30 CFR 250.410);

(2) Approval of production safety systems (see 30 CFR 250.800);

(3) Approval of new platforms and other structures (or major modifications to platforms and other structures) (see 30 CFR 250.905);

(4) Approval of applications to install lease term pipelines (see 30 CFR 250.1007); and

(5) Other permits, as required by applicable law.

(b) *Conformance.* The activities proposed in these applications and permits must conform to the activities described in detail in your approved EP, DPP, or DOCD.

§ 250.210 Do I have to conduct post-approval monitoring?

The Regional Supervisor may direct you to conduct monitoring programs, including monitoring in accordance with the ESA and the MMPA, in association with your approved EP, DPP, DWOP, or DOCD. You must retain copies of all monitoring data obtained or derived from your monitoring programs and make them available to BSEE upon request. The Regional Supervisor may require you to:

(a) Submit monitoring plans for approval before you begin work; and

(b) Prepare and submit reports that summarize and analyze data and information obtained or derived from your monitoring programs. The Regional Supervisor will specify requirements for preparing and submitting these reports.

§ 250.211 What are my new or unusual technology failure reporting requirements?

If you have an approved new or unusual technology and it experiences a failure during or post-installation, such that the technology is unable to perform its intended function or if it will be recovered and repaired or replaced, you must notify the applicable Regional Supervisor within 30 days of the failure and provide a written report as soon as available. The written report must identify the root cause(s) for the failure. You must also follow all applicable failure or incident reporting requirements associated with the failure (e.g., §§ 250.188, 250.730, and 250.803).

§ 250.212–250.219 [Reserved]**Deepwater Operations Plan (DWOP) Process****§ 250.220 What is the DWOP Process?**

(a) The DWOP Process consists of providing sufficient information from a total system approach for BSEE to review:

- (1) A deepwater development project,
- (2) A subsea tieback development technology, or

(3) Any other project or system that uses new or unusual technology during any phase of drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment operations.

(b) The DWOP Process does not replace but complements other submittals required by the regulations, such as BOEM EPs, DPPs, and DOCDs, or BSEE applications and/or permits (e.g., APD, Application for Permit to Modify (APM), pipeline, and platform). BSEE will use the information in your DWOP Process to determine whether the project will be developed in an acceptable manner, particularly with respect to operational safety and environmental protection issues involved with a deepwater development project, subsea tieback development technology, or new or unusual technology.

(c) The DWOP Process consists of two phases:

(1) *The Conceptual Plans.* The Conceptual Plans outline certain equipment and process specifications, operational concepts, and basis of

design that you plan to use for project development, and for applicable equipment design, installation and operation. Sections 250.227 through 250.229 prescribe what each of the Conceptual Plans must contain. Each Conceptual Plan may be submitted separately or combined as applicable; and

(2) *The DWOP.* The DWOP identifies specific design, fabrication, installation and operational requirements for equipment, systems, and activities as applicable in §§ 250.236 through 250.242.

§ 250.221 When must I use the DWOP Process?

(a) You must use the DWOP Process for any project that meets any of the following criteria:

- (1) Is planned in water depths greater than 1000 ft;
- (2) Will include the use of subsea tieback development technology, regardless of water depth; or

(3) Will include the use of any new or unusual technology for any drilling, completion, workover, intervention, injection, production, pipeline, platform, decommissioning, or abandonment project.

(b) If you are unsure if your project contains subsea tieback development technology or new or unusual technology, you must contact the Regional Supervisor for guidance.

§ 250.222–250.224 [Reserved]**Conceptual Plans****§ 250.225 What are the types of Conceptual Plans that I must submit?**

There are three types of Conceptual Plans:

(a) *A Project Conceptual Plan*—is required for any project that is planned in water depths greater than 1000 feet or will include the use of subsea tieback development technology, regardless of water depth (see § 250.221 paragraphs (a)(1) and (2))

(b) *A New or Unusual Technology Conceptual Plan*—is required for any project or system that involves equipment or systems that are considered new or unusual technology (see § 250.200 for the definition of new or unusual technology); and

(c) *A New or Unusual Technology Barrier Conceptual Plan*—is required for any project or system involving new or unusual technology that is also identified as a primary or secondary barrier (see § 250.200 for the definition of primary or secondary barriers).

§ 250.226 When and how must I submit each applicable Conceptual Plan?

You must submit each applicable Conceptual Plan to the Regional Supervisor after you have decided on the general concept(s) for a project or system, and before you begin final engineering design of the equipment, well, well safety control system, or subsea production systems. You must submit, for BSEE approval, each Conceptual Plan according to the following table:

Conceptual plan type	Where to find the description	Additional information
(a) Project Conceptual Plan	§ 250.227	You may not complete any production or injection well or install the tree before BSEE has approved the Project Conceptual Plan.
(b) New or Unusual Technology Conceptual Plan.	§ 250.228	(1) You may not install any new or unusual technology until BSEE approves your new or unusual technology Conceptual Plan. (2) Your plan must be approved by BSEE before it can approve any associated application or permit (e.g., pipeline, platform, APD, APM) approval. (3) The Regional Supervisor may require the operator to use an independent third party to perform certain functions and verifications in accordance with § 250.231, as applicable.
(c) A New or Unusual Technology Barrier Conceptual Plan.	§ 250.229	(1) You must submit a new or unusual technology Barrier Conceptual Plan for any project or system involving new or unusual technology that is also identified as a primary or secondary barrier. (2) Your plan must be approved by BSEE prior to new or unusual technology barrier equipment installation. (3) All new or unusual technology barrier equipment must be approved by BSEE before any associated application or permit (e.g., pipeline, platform, APD, APM) approval. (4) All new or unusual technology Barrier Conceptual Plans require the use of an Independent Third Party (I3P) to perform certain functions and verifications in accordance with § 250.231.

§ 250.227 What must the Project Conceptual Plan contain?

In the Project Conceptual Plan, you must explain the basis of design that you will use to develop the field. You must include the following information:

- (a) An overview of the development concept(s);
- (b) The system control type (*i.e.*, direct hydraulic or electro-hydraulic);
- (c) The distance from each of the wells to the host platform, and umbilical length(s);
- (d) Confirmation that the subsea production safety system will comply with Subpart H of this part;
- (e) For a new facility, a description of the type of facility you plan to install (*e.g.* Spar, tension leg platform (TLP), FPSO, etc.);
- (f) For a subsea tieback to an existing facility, a statement identifying whether a minor or major structural modification will be made to the facility and the facility remaining design life. If modifications will be made to the facility, a calculation of the facility's remaining design life and explanation of how the modifications will impact the design life;
- (g) A statement regarding whether the host facility will be manned or unmanned;
- (h) A schedule of development activities, including well completion, facility installation, and date of first oil;
- (i) Schematics, including:
 - (1) A well location plat,
 - (2) A subsea field schematic depicting the planned development infrastructure that contains the wells, pipelines, riser systems, umbilical(s), and facility footprint,
 - (3) The surface or subsea tree,
 - (4) Wellbore and completion schematic for a typical well (including Surface Controlled Subsurface Safety Valve (SCSSV) location and chemical injection points; and depiction or description of gas zones, if any, behind the production casing or production liner and how those gas zones will be isolated), and
- (5) Information concerning the drilling and completion systems.

(j) The estimated shut-in tubing pressure for the proposed well(s), including the calculation used to arrive at the estimate, specifying true vertical depth (TVD), reservoir pressure, and the fluid gradient used, or a brief discussion of the pressure volume temperature (PVT) data used for estimation;

(k) The wellbore static bottomhole temperature and the estimated flowing temperature at the tree;

(l) The pressure and temperature rating of the tree and wellhead;

(m) Identify if there will be corrosive production (*e.g.*, hydrogen sulfide (H₂S),

Carbon dioxide (CO₂), Mercury (Hg) or injection fluids (*e.g.*, acid), including concentrations;

- (n) Identify whether any of the proposed equipment will be refurbished and re-certified;
- (o) Identify whether enhanced recovery is planned for the early life of the project;
- (p) Identify whether any new or unusual technology will be used to develop your project involving the following activities: drilling, completion, injection, production, pipeline, or platform;
- (q) Identify whether the well(s) will include smart completion technology; and
- (r) Payment of the service fee listed in § 250.125.

§ 250.228 What must the New or Unusual Technology Conceptual Plan contain?

(a) You must include the following information, as applicable, in your New or Unusual Technology Conceptual Plan:

- (1) How the New or Unusual Technology Conceptual Plan fits within your overall site specific project, if applicable, including an overview of the project development concepts.
- (2) A description of the technology and specific conditions under which it will be used;
- (3) Description of shut-in capabilities and procedures;
- (4) Description of redundancies of critical components or systems that will be used;
- (5) Discussion of how the new or unusual technology could impact the barrier system, if any, including
 - (i) Detection method for new or unusual technology failure,
 - (ii) How the barrier functions to a fail-safe state when impacted by new or unusual technology failure;
- (6) Information on inspection and testing capabilities;
- (7) A risk assessment and failure mode analysis;
- (8) Operating procedures;
- (9) History of development and application of the technology;

(10) The basis of design, including design verification and validation testing;

- (11) Detailed schematics;
- (12) Justification for new or unusual technology use, and any additional information required for a complete review;
- (13) A list of requests for alternate procedures or equipment in accordance with § 250.141 and request for departures in accordance with § 250.142;
- (14) A certification statement that the technology is fit for service in the

applicable environment (for the specific project at location); and

(15) Payment of the service fee listed in § 250.125

(b) The Regional Supervisor may require the use of an Independent Third Party (I3P) according to § 250.230 if the system or equipment requires a high degree of specialized or technically complex engineering knowledge, expertise, and experience to evaluate, or is not addressed in existing industry standards.

(1) The Regional Supervisor may also require you to follow the I3P requirements according to § 250.231, as applicable, on a case-by-case basis.

(2) If you have any questions about I3P requirements for the New or Unusual Technology Conceptual Plan, contact the applicable Regional Supervisor.

§ 250.229 What must the New or Unusual Technology Barrier Conceptual Plan include?

Your New or Unusual Technology Barrier Conceptual Plan must include the following information:

(a) How the New or Unusual Technology Barrier Conceptual Plan fits within your overall site specific project, if applicable. You must include an overview of the project development concepts and a proposed schedule for submittal of associated conceptual plans;

(b) A diagram depicting the primary and secondary barriers that includes all components, assemblies, or sub-assemblies, each labeled and categorized as a Category 1 barrier or Category 2 barrier;

(c) A list of the primary and secondary barriers that includes all components, assemblies, or sub-assemblies specifying each assigned barrier as either a Category 1 barrier or Category 2 barrier;

(d) A list of the engineering standards that will be used in the equipment's material selection and qualification, design verification analysis, and design validation testing;

(e) A list of requested alternate procedures or equipment in accordance with § 250.141 and requested departures in accordance with § 250.142;

(f) A list of the functional requirements (*i.e.*, environmental and physical loads (magnitude and frequency)) for which the barrier equipment is being designed;

(g) Description of the equipment's safety critical functions, (*i.e.*, function(s) performed by or inherent to the equipment enabling it to achieve or maintain a safe state);

(h) An I3P nomination, in accordance with § 250.230(a);

- (i) An I3P verification plan that includes the following:
 - (1) A discussion of the equipment's material selection and qualification;
 - (2) A discussion of the equipment's design verification analyses;
 - (3) A discussion of the equipment's design validation testing;
 - (4) An explanation of why the analyses, processes, and procedures ensure that the equipment is fit for service in the applicable environment; and
 - (5) Details regarding how the I3P will address the additional items listed in § 250.231
- (j) I3P reports as required in § 250.232;
- (k) Payment of the service fee listed in § 250.125; and
- (l) After BSEE receives all of the required I3P reports, a certification statement that the barrier equipment is fit for service in the applicable environment (for the specific project location).

§ 250.230 What are your requirements for the Independent Third Party (I3P) nomination?

When required by BSEE and in accordance with each applicable Conceptual Plan, you must:

- (a) Nominate I3P(s) to review the design verification and design validation documentation of the Original Equipment Manufacturer (OEM). Your I3P must be a technical classification society, a licensed professional engineering firm, or a registered professional engineer capable of providing the required certifications and verifications. You must submit your I3P nomination(s) to BSEE for approval. Your I3P nomination must include the following:
 - (1) Previous experience in third-party verification or experience in the design, fabrication, or installation of applicable offshore oil and gas equipment.
 - (2) Technical capabilities of the individual or the primary staff for the specific project;
 - (3) Size and type of organization or corporation;
 - (4) In-house availability of, or access to, appropriate technology to review the specific project. This should include computer programs, hardware, and testing materials and equipment as applicable;
 - (5) Ability to perform the I3P functions for the specific project considering current commitments (e.g., project timelines, schedules, and personnel availability); and
 - (6) Previous experience with BSEE requirements and procedures;
 - (b) You must ensure that the I3P has access to all associated documentation

and equipment related to items § 250.229(i) to perform the complete reviews in accordance with § 250.231, including OEM documentation and access to the OEM fabrication and manufacturing locations.

§ 250.231 What are the I3P review requirements for Conceptual Plan reviews?

As directed by BSEE, or for all new or unusual technology Barrier review for Equipment categorized as Category 1 or Category 2, the I3P must:

- (a) Review the following information regarding the applicable equipment and/or system:
 - (1) Basis of Design, Technical Specification (if known at this point in the design process) and Functional Requirements (*i.e.*, environmental and physical loads (magnitude and frequency)).
 - (2) Risk assessment and failure mode analysis
 - (3) Material specification, selection, qualification, and testing
 - (4) Design verification analysis, including:
 - (i) Structural/strength analysis and
 - (ii) Fatigue assessment and/or analysis;
 - (5) If fatigue is identified as a potential failure mode, as identified in the fatigue assessment and/or analysis in paragraph (a)(4)(ii) of this section, the plan to record and gather data (load monitoring) in order to conduct a future fatigue analysis;
 - (6) Design validation testing;
 - (7) Fabrication, quality management system, and inspection and test plan that identifies the quality control/quality assurance process, and inspection of the final products.
- (b) Submit a report to BSEE documenting the review of each item covered under paragraph (a). Each report must clearly identify all OEM and operator documents used during the I3P review;
- (c) Submit to BSEE a final report summarizing each of the review requirements covered under paragraph (a) of this section, including:
 - (1) The equipment and/or system's technical specifications, including a certification statement that the equipment and/or system is fit for purpose for the technical specification by the I3P; and
 - (2) Verification that the equipment's technical specifications meet or exceed the project's functional requirements, including a certification statement that the equipment and/or system is fit for purpose for the proposed project by the I3P.
 - (d) For any subsequent I3P review of equipment and/or system's technical

specification that was previously approved in your New or Unusual Technology Barrier Conceptual Plan, the Regional Supervisor may accept a final report in accordance with § 250.231(c), including the existing certification covered under paragraph (c)(1) of this section, in lieu of reports required in paragraph (b) of this section. The I3P must also submit an updated certification statement in accordance with § 250.231(c)(2) for the specific project.

§ 250.232 General requirements for any I3P Report.

An I3P report as required in § 250.231 must be a standalone document that clearly summarizes the verification work performed and must contain a sufficient level of detail (*i.e.*, quantitative information) and clarity to establish the basis of the I3P's findings and/or recommendation(s). Each report must identify the OEM or operator documents reviewed, the detailed I3P review, and convey the results of the I3P's review without requiring BSEE to review of any other referenced document.

§ 250.233–250.234 [Reserved]

DWOP Approval

§ 250.235 When and how must I submit the DWOP?

You must submit the DWOP to the Regional Supervisor after BSEE has approved your project conceptual plan and you have substantially completed system design, and before you conduct post-completion installation activities for a deepwater development project, or for any project that will involve the use of subsea tieback development technology in any water depth which may include new or unusual technology or new or unusual technology barrier equipment. You may not begin production from the well until BSEE approves your DWOP.

§ 250.236 What information must I submit with the DWOP?

Your DWOP must contain the following information, as applicable:

Information that you must include with your DWOP	Where to find the description
(a) General information	§ 250.237
(b) Well or completion information	§ 250.238
(c) Structural information	§ 250.239
(d) Production safety system information	§ 250.240
(e) Subsea system and pipeline information	§ 250.241

Information that you must include with your DWOP	Where to find the description
(f) New or unusual technology information	§ 250.242

§ 250.237 What general information must my DWOP include?

You must include the following general information in your DWOP, as applicable:

(a) A list of any alternate compliance procedures or equipment or departures being requested and a list of any for which you anticipate requesting approval in any future applicable permit or application;

(b) Payment of the service fee listed in § 250.125; and

(c) A list of any associated industry standards not incorporated in the regulations that you are using for your project design or operation.

§ 250.238 What well or completions information must my DWOP include?

You must include the following information in your DWOP, as applicable, to align with the activities to be addressed in the associated well permit(s):

(a) A description and schematic of the typical wellbore, casing, and completion;

(b) Information concerning the drilling and completion systems; and

(c) Design and fabrication information for each wellbore riser system (e.g., drilling, completion, workover, intervention, injection, or production) deployed from a floating production facility or TLP.

§ 250.239 What structural information must my DWOP include?

You must include the following information in your DWOP, as applicable, to align with the activities, including any major modifications, to be addressed in the associated platform application:

(a) Structural design, fabrication, and installation information;

(b) Design, fabrication, installation, and monitoring information on the tendon, or mooring systems, including the turret or buoy system, if applicable; and

(c) Information on any active station keeping system(s) involving thrusters or other means of propulsion.

§ 250.240 What Production Safety System information must my DWOP include?

You must include the following information in your DWOP, as applicable, to align with the activities you plan to address in the associated production safety system application:

(a) A general description of the operating procedures, including a table summarizing the curtailment of production and offloading based on operational considerations;

(b) Information about the design, fabrication, and operation of an offtake system for transferring produced hydrocarbons to a transport vessel;

(c) A description of the process facility installation and commissioning procedure;

(d) Safety analysis flow diagram of the production system from the SCSSV downstream to the first item of separation equipment;

(e) A certification statement that the surface and/or subsea safety system and emergency support systems will comply with Subpart H of this part. You must also include:

(1) Methods, frequency, and acceptance criteria for testing the Underwater Safety Valves (USVs), SCSSVs, and Boarding Shutdown Valves (BSDVs);

(2) The function and testing of the host facility Emergency Shutdown Device (ESD) system and its interface to the subsea system;

(3) If applicable, a description of the surface and/or subsea safety system and emergency support systems not covered in Subpart H of this part. For systems not covered in Subpart H, you must request an approval of alternate procedures or equipment according to § 250.141, and you must also include a table that depicts what valves will close, at what times, and for what events or reasons; and

(f) Information on the design, operation, maintenance, personnel competency, and testing of your subsea leak detection system to protect your subsea field/infrastructure (e.g., trees, manifolds, jumpers). You must include procedures for how you will operate the system, ensure system functionality, identify a leak, and the actions you will take when a leak is identified.

§ 250.241 What subsea systems and pipeline information must my DWOP include?

(a) You must include the following information common to the subsea system and the associated pipeline systems, which constitute all or part of a single project development covered by the DWOP and/or aligns with activities addressed in your associated pipeline application, as applicable:

(1) The subsea field schematic depicting the planned subsea development equipment and infrastructure, including wells/trees, non-pipe subsea equipment, pipeline

route(s), pipeline riser systems, umbilical(s), and platform footprint;

(2) Description of the subsea development project detailing the subsea and pipeline equipment design criteria and analysis procedures (including industry standards, pressure and temperature ratings, materials selection), testing methods, and general operational procedures;

(3) Description of the fabrication and assembly/testing location of subsea trees, pipelines, and non-pipe subsea equipment (manifold, Pipeline End Manifold (PLEM), Pipeline End Termination (PLET), Subsea Umbilical Termination Assembly (SUTA), subsea pumps, suction piles, etc.);

(4) Summary of the Integrity Management Program for subsea tieback development technologies, including a plan for inspection and monitoring to support assessment of the condition of the systems a minimum of once every 10 years. This should include, but is not limited to, the in-service inspections or survey of hull and topsides structures, tendons, mooring, and pipeline and/or wellbore riser systems to assess component condition by inspection and analysis after each significant environmental event (e.g., hurricane, earthquake, loop and eddy currents, or mudslide) impacting the system, or once every 10 years, whichever occurs first; and

(5) Summary of safety and environmental controls.

(b) You must include the following information about subsea systems that constitute all or part of a single project development covered by the DWOP, as applicable:

(1) The system control type (i.e., direct hydraulic or electro-hydraulic);

(2) Well tree(s), wellhead, and non-pipe equipment general arrangement drawings and schematics, with size and valve type annotations to illustrate the tree and other equipment in operation;

(3) The estimated shut-in tubing pressure for the proposed well(s), including the calculation used to arrive at the estimate, specifying TVD, reservoir pressure, and the fluid gradient used, or a brief discussion of the pressure volume temperature (PVT) data used for estimation;

(4) The wellbore static bottomhole temperature and the estimated flowing temperature at the tree, including a description of the method used to calculate this estimate;

(5) Umbilical(s) and umbilical connection(s), including an umbilical cross-section schematic;

(6) Chemical or other injection systems and/or enhanced recovery systems to be used;

(7) Corrosion monitoring and prevention/inhibition provisions;
 (8) Details of any re-furbished and/or re-certified equipment you plan to use; and

(9) A schedule of development activities, including well completion, facility installation, and anticipated date of first oil.

(c) You must include the following pipeline information in your DWOP, as applicable, to align with the activities to be addressed in your associated pipeline application(s):

(1) Design and fabrication information for each pipeline riser system;

(2) If you propose to use a pipeline free standing hybrid riser (FSHR) on a permanent installation that uses a buoyancy air can suspended from the top of the riser, you must provide the following information in your DWOP as part of the discussions required by paragraphs (b)(1) and (2) of this section:

(i) A detailed description and drawings of the FSHR, buoy, and the associated connection system;

(ii) Detailed information regarding the system used to connect the FSHR to the buoyancy air can, and associated redundancies; and

(iii) Descriptions of your monitoring system and monitoring plan for the pipeline FSHR and the associated connection system for fatigue, stress, and any other abnormal condition (e.g., corrosion), that may negatively impact the riser system's integrity; and

(3) Pipeline and pipeline riser installation methods.

§ 250.242 What new or unusual technology information must my DWOP include?

You must include the following new or unusual technology information in your DWOP, as applicable:

(a) A description of any new or unusual technology being used in your development project, including a reference to previously approved New or Unusual Technology Conceptual Plans or New or Unusual Technology Barrier Conceptual Plans.

(b) A description of any new or unusual technology not covered under the New or Unusual Technology Conceptual Plan or New or Unusual Technology Barrier Conceptual Plan. You must include the same applicable information as required in §§ 250.228 or 250.229.

§ 250.243 and 250.244 [Reserved]

§ 250.245 May I combine the Conceptual Plan and the DWOP?

If your development project meets the following criteria, you may submit a combined Conceptual Plan/DWOP that complies with all applicable

requirements for both, on or before the deadline for submitting the Conceptual Plan, as described in § 250.226:

(a) The project is similar to projects involving subsea tieback development technology for which you have obtained approval previously, and

(b) The project does not involve either new or unusual technology or a new platform.

§ 250.246 When must I revise my DWOP?

You must revise either the Conceptual Plan or your DWOP to reflect any change to the proposed plan or procedures that does not involve a physical alteration of the equipment on the platform or the seabed.

§ 250.247 When must I supplement my DWOP?

You must supplement your DWOP to reflect additions or changes in your development project that:

(a) Physically alter the platform, process facilities, equipment, or systems approved in your original Conceptual Plan or DWOP. If a Supplemental DWOP includes the addition of a well or wells (e.g., a new subsea field) not approved in your original DWOP, you may not complete or produce from the new well(s) until BSEE approves the Supplemental DWOP.

(b) Involves the addition of any new or unusual technology to your project that was not previously covered under the New or Unusual Technology Conceptual Plan, New or Unusual Technology Barrier Conceptual Plan, or DWOP. You cannot install any new or unusual technology until BSEE approves the Supplemental DWOP.

§ 250.248 What information must I include in my Supplemental DWOP?

You must include the following information, as applicable, in your Supplemental DWOP:

(a) The same information for your wells or equipment as required in the applicable Conceptual Plan and DWOP requirements in this subpart;

(b) Information for each applicable Conceptual Plan or DWOP section that is being impacted by the addition or change; and

(c) Payment of the service fee listed in § 250.125.

Subpart D—Oil and Gas Drilling Operations

■ 6. Amend § 250.490 by revising the introductory text to paragraph (p) to read as follows:

§ 250.490 Hydrogen sulfide.

* * * * *

(p) *Metallurgical properties of equipment.* When operating in a zone

with H₂S present or when the concentration of H₂S in the produced fluid may exceed 0.05 psi partial pressure of H₂S, you must use equipment that is constructed of materials with metallurgical properties that resist or prevent sulfide stress cracking (also known as hydrogen embrittlement, stress corrosion cracking, or H₂S embrittlement), chloride-stress cracking, hydrogen-induced cracking, and other failure modes. You must do all of the following:

* * * * *

■ 7. Amend § 250.518 by revising paragraphs (a), (c), and (d) to read as follows:

§ 250.518 Tubing and wellhead equipment.

(a) No tubing string can be placed in service or continue to be used unless such tubing string has the necessary strength and pressure integrity and is otherwise suitable for its intended use.

(1) The tubing string must be evaluated for burst, collapse, and axial loads with appropriate safety and design factors for the pressure and temperature environments of the completion, production, shut-in, and injection load cases.

(2) The tubing string materials must be appropriate for the environment. You must follow NACE Standard MR0175–2003 (as incorporated by reference in § 250.198) when H₂S concentration may equal or exceed 0.05 psi partial pressure.

(3) The tubing string threaded connectors must be appropriate for the loads identified in paragraph (a)(1) of this section.

* * * * *

(c) You must design and test the wellhead, tree, and related equipment in accordance with ANSI/API Spec. 6A (as incorporated by reference in § 250.198) or ANSI/API Spec. 17D (as incorporated by reference in § 250.198), as applicable. The wellhead, tree, and related equipment must have a pressure rating greater than the maximum anticipated surface pressure and must be designed, installed, operated, maintained, and tested to achieve and maintain pressure containment and pressure control.

(1) Newly completed dry trees (e.g., fixed, hybrid, or mudline suspension) for production or injection wells must be equipped with a minimum of one master valve and one surface safety valve (SSV), installed above the master valve, in the vertical run of the tree.

(2) Newly completed subsea production or injection wells must be equipped with a minimum of one underwater safety valve (USV) installed in the horizontal or vertical run of the

tree (e.g., vertical or horizontal subsea trees).

(3) Newly completed wells with a mudline suspension conversion to a subsea tree must have a minimum of two casing strings tied back and sealed below the tubing head. At a minimum, the production casing and the next outer casing must be tied back to the wellhead, to ensure annular isolation.

(d) You must install, maintain, and test surface and subsurface safety equipment in accordance with the applicable requirements in Subpart H of this part.

* * * * *

■ 8. Amend § 250.619 by revising paragraphs (a), (c), and (d) to read as follows:

§ 250.619 Tubing and wellhead equipment.

* * * * *

(a) No tubing string can be placed in service or continue to be used unless such tubing string has the necessary strength and pressure integrity and is otherwise suitable for its intended use.

(1) The tubing string must be evaluated for burst, collapse, and axial loads with appropriate safety and design factors for the pressure and temperature

environments of the completion, production, shut-in, and injection load cases.

(2) The tubing string materials must be appropriate for the environment. You must follow NACE Standard MR0175–2003 (as incorporated by reference in § 250.198) when H₂S concentration may equal or exceed 0.05 psi partial pressure.

(3) The tubing string threaded connectors must be appropriate for the loading identified in paragraph (a)(1) of this section.

* * * * *

(c) You must design and test the wellhead, tree, and related equipment in accordance with ANSI/API Spec. 6A (as incorporated by reference in § 250.198) or ANSI/API Spec. 17D (as incorporated by reference in § 250.198), as applicable. The wellhead, tree, and related

equipment must have a pressure rating greater than the shut-in tubing pressure and must be designed, installed, operated, maintained, and tested so as to achieve and maintain pressure containment and pressure control.

(1) Dry trees (e.g., fixed, hybrid, or mudline suspension) for production or

injection wells must be equipped with a minimum of one master valve and one surface safety valve (SSV), installed above the master valve, in the vertical run of the tree.

(2) Subsea production or injection wells must be equipped with a minimum of one underwater safety valve (USV) installed in the horizontal or vertical run of the tree (for vertical or horizontal subsea trees).

(3) Wells with a mudline suspension conversion to a subsea tree must have a minimum of two casing strings tied back and sealed below the tubing head. At minimum, the production casing and the next outer casing must be tied back to the wellhead, to ensure annular isolation.

(d) You must install, maintain, and test surface and subsurface safety equipment in accordance with the applicable requirements in Subpart H of this part.

* * * * *

■ 9. Amend § 250.731 by revising paragraph (c)(4) to read as follows:

§ 250.731 What information must I submit for BOP systems and system components?

You must submit:

Including:

* * * * *

(c) * * * (4) If using a subsea BOP, a BOP in an HPHT environment, as defined in § 250.105, or a surface BOP on a floating facility, the BOP has not been compromised or damaged from previous service.

* * * * *

You may not deploy your proposed HPHT BOP systems and related equipment until BSEE approves the New or Unusual Technology Barrier Equipment Conceptual Plan and appropriate permits (e.g., APD).

§ 250.804 [Removed and Reserved]

■ 11. Remove and reserve § 250.804.

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■ 10. Amend § 250.732 by revising paragraph (c) to read as follows:

§ 250.732 What are the independent third party requirements for BOP systems and system components?

* * * * *

(c) Before you begin any operations in an HPHT environment, as defined by § 250.105, with the proposed equipment, you must include the following in your applicable permit:

(1) The I3P certification required in § 250.731(c);

(2) A description of any new or unusual technology being used;

(3) A reference to the previously approved associated new or unusual technology Barrier Conceptual Plan;

(4) The final report and certification statements in accordance with § 250.231(c); and

(5) The fit-for-service certification statement required in § 250.229(l).