Rcd 5/28/02
RPT

OFFSHORE OPERATORS COMMITTEE

May 24, 2002

Attn: Rules Processing Team (RPT)
Department of the Interior, Minerals Management Service; MS 4024
381 Elden Street
Herndon, Virginia 20170-4817

Re: Notice of Proposed Rulemaking; RIN 1010-AC-85
Fixed and Floating Platforms and Documents Incorporated by Reference

Gentlemen:

The Offshore Operators Committee (OOC) appreciates this opportunity to provide written comments on the subject proposed rule to amend regulations for offshore platform, as provided in the December 27, 2001 Federal Register Notice. The comment period was extended from February 25, 2002 to March 27, 2002 in the February 12, 2002 Federal Register Notice and further extended to May 28, 2002 by notice in the March 28, 2002 Federal Register.

OOC is an organization of some 110 companies who conduct essentially all of the OCS oil and gas exploration and production activities in the Gulf of Mexico. Comments made on behalf of OOC are submitted without prejudice to any member's right to have or express different or opposing views.

OOC applauds the efforts of MMS to rewrite 30 CFR Subpart I---Platforms and Structures to a performance based regulation relying on industry recommended practices and standards in lieu of highly prescriptive regulations. We also recognize MMS for moving forward to adopt regulations for floating platforms. However, we have several concerns that we would like to highlight.

In the preamble to the proposed rulemaking, we note that MMS states "we are proposing to amend our regulations to address floating offshore platform...". OOC notes that this rulemaking goes far beyond merely adopting regulations for floating offshore platforms but is actually a re-write of Subpart I and modifies the regulations for both fixed and floating platforms. There are significant differences between the field development concepts of fixed versus floating platforms. These include the design, fabrication and installation complexity, availability of design firms and suitable CVA firms and costs. As proposed, both fixed and floating platforms are treated together in many sections of the regulations, which creates confusion. Attempting to apply wording that was originally crafted for fixed platforms to floating platforms creates an unrealistic regulatory scheme for floating platforms and does not follow the application and CVA process that has been used for the last several for floating platforms. We recommend that MMS provide separate sections within Subpart I for fixed and floating platforms in lieu of lumping the regulations together. Further, we highly recommend that the regulatory process for

Post Office Box 50751, New Orleans, Louisiana 70150-0751 • 504-561-2427 • Fax 504-561-2700
Website: www.offshoreoperators.com

floating systems be based on those systems in lieu of merely extending the fixed platform regulations to floating systems.

In the current Memorandum of Understanding (MOU) between MMS and USCG, both agencies have joint jurisdiction and responsibility to review and approve the structural design of non ship shaped floating platforms. Prior to this rulemaking, MMS did not have regulations expressly coving floating platforms; therefore, floating platforms have been designed in accordance with USCG regulations which rely heavily on American Bureau of Shipping Rules for Building and Classing Mobile Offshore Drilling Units (ABS MODU rules). USCG has approved the use of other rules and guides as well as industry standards as appropriate to supplement the ABS MODU rules. Due to the high level of activity in deepwater and the limited staff available within companies, we have not undertaken an exhaustive comparative review of the proposed documents to be incorporated by reference with the ABS MODU rules. However, there is a high probability that conflicts may occur. In the event that conflicts do occur, how will the conflict be resolved between MMS and USCG regulations on the same system?

The joint jurisdiction of MMS and USCG over the same systems is confusing to industry, especially when conflicts occur. There are several approaches that we believe MMS and USCG could consider to eliminate the concern over joint jurisdiction. One would be to adopt identical regulations for systems subjected to joint jurisdiction. Or, MMS and USCG could work together to clearly identify lead agencies with the authority to approve each system in lieu of both agencies approving each system. Or, since the concept of verification agents is acceptable to both MMS and USCG, a verification agent that is acceptable to both agencies could review the project utilizing the best regulations and standards for the specific project or system, regardless if the regulations were identical between the two agencies.

While we believe that incorporating by reference industry recommended practices and standards is a good regulatory approach, we recognize that several of these standards are currently being updated and as technology and experience advances, the standards will continue to evolve. We recommend that MMS continue to participate actively in the committees as these standards are revised so that new editions can be incorporated into the appropriate subpart or considered as "best practice" until such time as it can be incorporated by reference.

Also, we recognize that these industry documents are in many cases written as "stand alone" documents and that conflicts between documents may occur. For example, while reviewing API 510 to determine if it was appropriate to incorporate by reference by MMS, it was discovered that in several places it conflicted with API RP 14C. Industry, due to the high level of activity in deepwater and the limited staff available, has not conducted an exhaustive review to determine if conflicts occur between the proposed documents to be incorporated and other documents incorporated by reference.

As proposed, the structure application and CVA plan process has not been updated from the existing regulations. It appears that these processes were based on fixed platforms and do not reflect current practices for floating platforms. The processes as described seem to indicate that an operator will fully design his project, prepare drawings, calculations, etc put them together in a package and submit to MMS and to the CVA who will then review the design and make a recommendation for its approval and then fabrication will commence. While this system may work for fixed platforms in the CVA program, it is inappropriate for floating systems. In reality, for floating systems, in many cases the design is carried out in phases and submitted to the CVA in phases. Fabrication will also have commenced prior to design being completed.

It is also unclear why MMS needs to get a copy of many of the items that are submitted directly by the operator or design firm to the CVA for review. For example, why does MMS need to receive abstracts of the computer programs used for design when the same information must be given to the CVA? It appears to be redundant for MMS and the CVA to review the same documents. Since a number of floating platforms have now been permitted, we recommend that MMS consider revising the structure application and CVA plan to better reflect the actual way floating platform projects are sequenced and to consider what information MMS needs to review and what needs to be given directly to the CVA. Also, in lieu of submitting a qualification statement and obtaining approval for each CVA for each project, MMS should publish a list of acceptable CVAs for various types structures for which a qualification statement is not required. For example, ABS and DNV for spars and TLPs. If an operator wanted to use a CVA not on the "approved" list, then a qualification statement would be required and the CVA would have to be approved.

Further, we have heard comment by MMS that either in conjunction or following this rulemaking effort, MMS is considering issuing a Notice to Lessees (NTL) explaining the interpretation of the regulation. We believe that the regulation should be written in a clear, comprehensive fashion such that a NTL, if needed at all, would only cover limited areas. Appropriate areas to be included in a NTL would be such specifics as a time frame for conducting inspection under API RP 2A for existing platforms and a list of acceptable CVAs. In addition to these general comments, we have attached a table giving specific comments on the proposed regulation. Please feel free to contact the undersigned at (504) 561-2427 or Mr. Steve Brooks, Chairman—OOC Technical Sub-Committee at (504) 561-4753, if you have any questions concerning our comments or wish to discuss them in more detail.

Sincerely,

Allen Verret, P. E.
Executive Director
Offshore Operators Committee

Fixed and Floating Platforms and Documents Incorporated by Reference
NPRM December 27, 2001

Section	New Language or Requirement	Comment
Changes to Subpart A, General		
250.105	**Includes all floating production systems in the definition of facility**	
250.198 (e)	**Revises Documents Incorporated by Reference to include:** API RP 2A—WSD, 21st Edition, (19th and 20th deleted) API RP 2FPS, 1st Ed API RP 2RD, 1st Ed API RP 2SK, 2nd Ed API RP 2SM, 1st Ed API RP 2T, 2nd Ed API RP 14J, 1st Ed API Spec 17J, 2nd Ed AWS D3.6M:1999	
Changes to Subpart B, Exploration and Development and Production Plans		
250.204(a)(2)	**Adds floating platforms to the list of descriptions required in Development and Production Plans**	

Changes to Subpart H, Production Systems		
250.800(b)	For all new floating production systems (FPSs) (e.g., column-stabilized units (CSUs); floating production, storage and offloading facilities (FPSOs); tension-leg platforms (TLPs); spars, etc.), you, the lessee, must do all of the following:	1. How is "new" defined? It should be realized that in many cases there is a long lead time between the initial design of the a platform, facilities, mooring and risers and fabrication and installation. All floating platforms currently in either the late stages of design or being fabricated may not fully comply with all of the proposed regulations. **This comment is applicable to other parts of the proposed regulation where "new" is utilized.** 2. How are fixed and floating platforms handled that are reused or relocated to a different block than where they were originally sited? Is the design grandfathered to the rules in place at the time the unit was designed, fabricated and originally installed or will it have to meet any new requirements that have been adopted since the initial installation? Is there a difference in the way fixed platforms are handled from floating platforms?
250.800(b)(1)	Comply with API RP 14J	
250.800(b)(2)	Meet the drilling and production riser standards of API RP 2RD	
250.800(b)(3)	Meet the production-safety systems requirements contained in this subpart	
250.800(b)(4)	Design all stationkeeping systems for floating facilities to meet the standards of API RP 2SK, as well as relevant U.S. Coast Guard regulations; and	
250.800(b)(5)	Design stationkeeping systems for floating facilities to meet structural requirements in subpart I, Secs. 250.900 through 250.918 of this part.	

250.803(a)	For all new floating production platforms, you must comply with API RP 14J. For all production platforms, you must comply with the following production safety system requirements, in addition to the requirements of Sec. 250.802 and the requirements of API RP 14C.	
250.803(b)(2)(iii)	If you are installing flowlines constructed of unbonded flexible pipe on a floating platform, you must comply with the requirements of API Spec 17J, including its third-party review standards for independent verification agents (IVAs). You must submit your IVA reviews for flowlines constructed of unbonded flexible pipe for review by the **MMS** District Supervisor.	1. When does the third party review of unbonded flexible pipe flowlines have to be submitted to MMS? What is MMS going to do with the IVA review? Does the review have to be approved by MMS?

<table>
<tr><td>Changes to Subpart I, Fixed and Floating Structures</td><td></td><td></td></tr>
<tr><td>250.900</td><td>What general requirements apply to fixed and floating platforms?</td><td></td></tr>
<tr><td>250.900(a)</td><td>You must design, fabricate, install, inspect, and maintain all fixed and floating platforms, and related structures on the Outer Continental Shelf (OCS) so as to ensure their structural integrity for the safe conduct of drilling, workover, and production operations. In doing this, you must consider the specific environmental conditions at the platform location. You must submit an application under Sec. 250.902 and obtain the approval of the Regional Supervisor before installing any platform or performing any of the other activities described in the following table:
<table>
<tr><th>Activity</th><th>Conditions to be met for application</th></tr>
<tr><td>(1) Install a platform</td><td>You must adhere to the requirements of this subpart, including the industry standards in Sec. 250.901</td></tr>
<tr><td>(2) Make a major modification to any platform</td><td>Major modifications are any structural changes to any platform that materially alter the approved plan or cause a major deviation from approved operations. They are subject to the requirements of this subpart, including the</td></tr>
</table></td><td>1. Although major modification is vaguely defined in 250.900(a)(2), industry is confused by the definition and it is not clear what MMS means by the definition. Either more precise definition is needed or examples need to be given. Is there a difference in major modification to a fixed platform versus a floating platform?</td></tr>
</table>

		industry standards in Sec. 250.901	
	(3) Make a major repair to damage to any platform	Major repairs of damage are corrective operations involving structural members affecting the structural integrity of a portion or all of the platform. They are subject to the requirements of this subpart, including the industry standards in Sec. 250.901	
	(4) Make an emergency repair to a primary structural element to restore an existing permitted condition	Under emergency conditions, you may make repairs to a primary structural element to restore to an existing permitted condition without an application or prior approval. You must notify the Regional Supervisor of the damage that occurred within 24 hours, and you must notify the Regional Supervisor of the repairs that were made within 24 hours of completing the repairs.	
		The Regional Supervisor will determine on a case-by-	

	unit (MODU)	case basis the requirements for an application for conversion of an existing MODU. Your application must include: (i) The converted MODU's intended location and use; (ii) A demonstration of the adequacy of the design and structural condition of the converted MODU; and (iii) A demonstration that the level of safety for the converted MODU is at least equal to that of reused platforms.	
250.900(b)	You must design, fabricate, install, inspect, and maintain all new fixed or bottom-founded platforms (e.g., template type, tower type, caisson, gravity-base type, artificial island, etc.) according to all the requirements of this section, Sec. 250.901 (including applicable referenced documents), Sec. 250.902, and Secs. 250.913 through 250.918.		

250.900(c)	Section 250.903 fully describes the facilities that are subject to the Platform Verification Program. In brief, all floating platforms are subject to the Platform Verification Program. Also, all fixed or bottom-founded platforms that meet certain conditions listed in Sec. 250.903(a) are subject to the Platform Verification Program.	

250.901	What industry standards must fixed and floating platforms meet?	
250.901(a)	In addition to the other requirements of this subpart, your plans for fixed or floating platform design, analysis, fabrication, and installation must, as appropriate, conform to: (1) American Concrete Institute (ACI) Standard 318, Building Code Requirements for Reinforced Concrete, plus Commentary. (2) ACI 357R, Guide for the Design and Construction of Fixed Offshore Concrete Structures; (3) American Institute of Steel Construction (AISC) Standard Specification for Structural Steel Buildings, Allowable Stress Design and Plastic Design; (4) American Petroleum Institute (API) Recommended Practice (RP) 2A, Recommended Practice for Planning, Designing, and Constructing Fixed Offshore Platforms; (5) API RP 2FPS, Recommended Practice for Planning, Designing, and Constructing Floating Production Systems; (6) API RP 2RD, Design of Risers for Floating Production Systems (FPSs) and Tension-Leg Platforms (TLPs); (7) API RP 2SK, Recommended Practice for Design and Analysis of Station Keeping Systems for Floating Structures; (8) API RP 2SM, Recommended Practice for Design, Manufacture, Installation, and Maintenance of Synthetic Fiber Ropes for Offshore Mooring; (9) API RP 2T, Recommended Practice for Planning, Designing and Constructing Tension Leg Platforms; (10) API RP 14J, Recommended Practice for Design	1. In lieu of listing the standards for fixed and floating platforms together, it would be clearer if three lists were given: 1. fixed only, 2. floating only and 3. fixed and floating. This would eliminate confusion on the applicability of standards such as 14J which only new floating platforms have to meet. 2. Industry cautions that they have not made an exhaustive review of all of the standards to ensure that there are no conflicts between the standards. If there are conflicts, these will be identified as these standards and codes are applied in conjunction with one another. 3. A number of these recommended practices and standards are in the process of being revised to address deepwater facility requirements. MMS should stay up-to-date, and where possible participate, in the revision of these recommended practices and standards, so that new editions of the recommended practices or standards can be readily adopted into the MMS regulations. For example, industry notes that there is confusion within API RP 2a, 21st edition that needs clarification. In at least three sections (Life safety exposure, consequences of failures, inspection levels) of the RP, platforms are divided into Level 1, Level 2 and Level 3 categories; however, the definitions for Level 1, 2 and 3 are different. Therefore, when a platform is generally referred to as a Level 1 platform or a Level 3 platform, confusion is created on what that means. As API revises the document to element the confusion, MMS should be involved so they can adopt the changes. 4. In addition, MMS should consider the adoption of API RP 2I, In-service inspection of hardware for FDU.

	and Hazards Analysis for Offshore Production Facilities; (11) American Society for Testing and Materials (ASTM) Standard C 33-99a, Standard Specification for Concrete Aggregates; (12) ASTM Standard C 94/C 94M-99, Standard Specification for Ready-Mixed Concrete; (13) ASTM Standard C 150-99, Standard Specification for Portland Cement; (14) ASTM Standard C 330-99, Standard Specification for Lightweight Aggregates for Structural Concrete; (15) ASTM Standard C 595-98, Standard Specification for Blended Hydraulic Cements; (16) AWS D1.1, Structural Welding Code--Steel; (17) AWS D1.4, Structural Welding Code--Reinforcing Steel; (18) AWS D3.6M, Specification for Underwater Welding; (19) NACE Standard MR0175, Sulfide Stress Cracking Resistant Metallic Materials for Oilfield Equipment; and (20) NACE Standard RP 01-76-94, Standard Recommended Practice, Corrosion Control of Steel Fixed Offshore Platforms Associated with Petroleum Production.	5. In many cases, all or portions of a floating production are fabricated outside of the United States and welding standards that MMS has deemed for as equivalent (such as Euronorm) to AWS standards for individual projects are used. MMS should either consider incorporating by reference these equivalent standards or should publish a list of welding standards that they have deemed to be equivalent to AWS standards in lieu of each project having to obtain approval for utilizing an alternate welding standard. 6. In the current MOU between MMS and USCG, the agencies have joint jurisdiction over the structural design on non-ship shaped hulls. USCG treats floating production platforms as MODUs. In 46 CFR 108.113, USCG requires each unit to meet the structural standards of the American Bureau of Shipping "Rules for Building and Classing Offshore Mobile Drilling Units". There is concern that there could be conflicts between the recommended practices and standards proposed for adoption in this rulemaking and the USCG structural requirements. Industry has not undertaken an exhaustive study to determine if conflicts exist. Further, it is confusing to industry to have joint jurisdiction over the same system, especially when the criteria is different. It is suggested that MMS and USCG work together and either adopt the same criteria for systems in which they have joint jurisdiction or that one agency clearly be given the lead jurisdiction for each system and move away from the joint jurisdiction where both agencies have to approve a system.

250.901(b)	You must follow the requirements contained in the documents listed under paragraph (a) of this section insofar as they do not conflict with other provisions of 30 CFR part 250. You may use applicable provisions of these documents, as approved by the Regional Supervisor, for the design, fabrication, and installation of platforms such as spars, since standards specifically written for such structures do not exist. You may also use alternative codes, rules, or standards, as approved by the Regional Supervisor, under the conditions enumerated in Sec. 250.141, paragraphs (a), (b), and (c) of this part.	1. If an operator chooses to Class his floating platform, the systems covered by Class should be allowed to be designed to Class rules without seeking specific approval from the Regional Supervisor.
250.901(c)	For information on all standards mentioned in this section, see Sec. 250.198 of this part.	

<table>
<tr><td>250.902</td><td colspan="3">What must an application to approve a fixed or floating platform contain?</td><td></td></tr>
<tr><td></td><td colspan="3">You must submit to the Regional Supervisor for approval all applications under this subpart and all significant changes or modifications to approved applications. Your application for all new fixed or floating platforms or major modifications must contain all of the following general facility information:</td><td rowspan="3">1. For platforms subject to the Platform Verification Process, the rational for submitting a full application to MMS, including a complete set of structural drawings, etc, is unclear since the information will also be provided to the certification agency to verify the design. It would appear to be more appropriate to submit (a)(b)(c) and (j) to MMS with the rest of the information submitted to the CVA. In many instances all of the information required is not available at the time the application needs to be made for a floating platform in order to kick off the CVA program.

2. The proposed regulations seems to assume that the design stages of a floating platform matches that for a fixed platform. For a fixed platform, in many cases the platform is fully designed and is then fabricated. For a floating platform, the design may be done in stages with fabrication commencing on various systems prior to the final design of other systems. This rule making does not seem to take this into account. We suggest that MMS investigate project sequencing and take that into account in the rulemaking.

3. Document (i) requires that an in-service inspection plan be submitted for both fixed and floating platforms with the application. In the MOU between the USCG and MMS, USCG has been given sole jurisdiction of structural inspection requirements for floating platforms, with the USCG coping MMS on approvals and compliance records. Industry is confused over the rational for MMS to adopt In-service Inspection Plan (ISIP) requirements for floating platforms. MMS should coordinate any requirements for ISIP review and inspection oversight with the USCG, to eliminate a duplicate or parallel program. We also question the timing of the submittal of the inspection plan. Since the first inspection is normally not due for at least a year after</td></tr>
<tr><td></td><td colspan="3"><table>
<tr><th>Required documents</th><th>Required contents</th><th>Other requirements</th></tr>
<tr><td>(a) Application cover letter</td><td>Proposed facility designation, lease number, area, name, and block number, and the type of facility (e.g., drilling, production, quarters)..</td><td>You must submit three copies*</td></tr>
<tr><td>(b) Location plat</td><td>Latitude and longitude coordinates, Universal Mercator grid-system coordinates, state plane coordinates in the Lambert or Transverse</td><td>Your plat must be drawn to a scale of 1 inch equals 2,000 feet and include the coordinates of the lease block boundary lines. You must submit three</td></tr>
</table></td></tr>
</table>

		Mercator Projection System, and distances in feet from nearest block lines.	copies.*	installation, we recommend that any ISIP that is required to be submitted not be submitted with the platform application, but within 1 year after installation. Clarification is also needed on the in-service inspection agency jurisdiction for mooring and station keeping systems. It is also unclear what information the MMS expects to see in an ISIP for either a fixed or floating platform. Also, since the ISIP has to be submitted with the platform application, this suggests that each platform has to have an individual inspection plan. It would be less burdensome on both industry and MMS to develop a generic inspection, at least for fixed platforms, that covers the different types of platforms that an operator has with perhaps a table covering the individual platforms. 4. The Certification required in (j) "'The design of this structure has been certified by a recognized classification society...." is stated as if the design at the time the application has been made has already been reviewed and approved. At the time the application is made, the design of a floating structure will NOT have been certified by a recognized classification society. We recommend that you restate the Certification to "The design of this structure *will be* certified ....". 5. We also note that no information has been requested to be submitted in the platform application on the drilling and production risers and tensioning systems for floating platforms even though these are proposed to be covered under the CVA program. What information are we required to provide to either MMS or the CVA on these elements?
	(c) Front, Side, and Plan View drawings.	Platform dimensions and orientation, elevations relative to M.S.L. and pile sizes and penetrations	Your drawing size must not exceed 11" X 17". You must submit three copies.*	
	(d) Complete set structural drawings		Your drawing sizes must not exceed 11" X 17". You must submit one copy.	
	(e) Summary of environmental data		You must submit one copy.	

	Examples of relevant data include information on waves, wind, current, tides, temperature, snow and ice effects, marine growth, and water depth		
(f) Summary of the engineering design data.	Loading information (e.g., live, dead, environmental), structural information (e.g., design-life, material types, cathodic protection systems, design criteria fatigue life, fabrication and installation guidelines), and foundation information (e.g., soil stability, design criteria).	You must submit one copy.	
(g) Project-specific	All studies pertinent to platform	You must submit one copy each	

	design or installation, e.g. soil and/or oceanographic reports.	study.	
(h) Description of the loads imposed on the facility.	Loads imposed by production and pipeline risers and mooring and anchoring systems.	You must submit one copy.	
(i) A copy of the inservice inspection plan.	This plan is described in 250.916	You must submit one copy.	
(j) Certification	The following statement: "The design of this structure has been certified by a recognized classification society, or a registered civil or structural engineer, or equivalent, specializing in the design of offshore structures. The certified design and as-built	An authorized company must sign the registered statement. You must submit one copy.	

			plans and specifications will be on file at (give location)."	
	* For your facilities subject to Platform Verification Program requirements in 250.903 through 250.912, you must submit one additional copy of these items (four copies total).			

250.903	**Which of my platforms, associated structures and major modifications are subject to the Platform Verification Program?**	
250.903(a)	All new fixed or bottom-founded platforms that meet any of the following five conditions are subject to the Platform Verification Program: (1) Platforms installed in water depths exceeding 400 feet (122 meters); (2) Platforms having natural periods in excess of 3 seconds; (3) Platforms installed in areas of unstable bottom conditions; (4) Platforms having configurations and designs which have not previously been used or proven for use in the area; or (5) Platforms installed in seismically active areas.	1. If an operator chooses to Class the structure, the systems covered by Class should not be subject to the Verification program, rather the operator should be required to submit a Class certificate once it is issued following the installation of the structure.
250.903(b)	All new floating platforms are subject to the Platform Verification Program. Floating platforms include floating production systems (FPSs) such as column-stabilized units (CSUs); floating production, storage and offloading systems (FPSOs); tension-leg platforms (TLPs); spars, etc. The following structures that may be associated with a floating platform are also subject to the Platform Verification Program: (1) Drilling and production risers, and riser tensioning systems; (2) Turrets and turret-and-hull interfaces; (3) Foundations and anchoring systems; and (4) Mooring or tethering systems.	1. While it may be prudent to include drilling and production risers and riser tensioning systems in the CVA program for design, it is problematic to include these into the fabrication and installation CVA program. The risers and tensioning systems will be fabricated for wells as needed, they are not all fabricated at one time similar to platform. We question the value returning to the CVA fabrication process each time a riser or tensioning system is fabricated. The risers and tensioning systems are installed on each well as it is drilled. We question the value of having the installation verified through the CVA program. If a conventional marine riser is utilized for drilling operations, it should be excluded from the CVA process. 2. Since the structures listed as (1)(2)(3) and (4) are not mentioned in 250.902, it is not clear what information MMS expects to be provided in the application process or in the CVA process. Please clarify.

250.903(c)	Platform Verification Program requirements apply to any major modification to a fixed or floating platform covered under this section.	1. What constitutes a major modification to a fixed or floating platform? Does it include such things as increased loading due to additional topsides equipment or loading from additional wells or risers?
250.9032(d)	The applicability of Platform Verification Program requirements to other types of facilities will be determined by **MMS** on a case-by-case basis.	
250.904	**If my platform, associated structure, or major modification is subject to the Platform Verification Program, what must I do?**	
	If your platform, associated structure, or major modification meets the criteria in Sec. 250.903, you must:	
250.904(a)	Design, fabricate, and install your facility, associated structures, or major modification to your facility according to the requirements of Secs. 250.900 through 250.918, and the applicable documents listed in Sec. 250.901(a);	
250.904(b)	Submit for the Regional Supervisor's approval three copies each of the design verification, fabrication verification, and installation verification plans required by Sec. 250.905; and	1. MMS should establish a time frame for approval following the submittal of the required plans. 2. MMS may need to provide more guidance to the CVA to ensure that they are only verifying the operators proposed design to ensure that it meets the required regulations, not conducting a complete design analysis.
250.904(c)	Include as a part of each verification plan required by Sec. 250.905 your nomination of a Certified Verification Agent (CVA);	
250.904(d)	Follow the additional requirements in Secs. 250.906 through 250.912; and	

250.904(e)	Prepare and submit for MMS review, plans for ship-shaped FPSs which are modified to address in detail only those items listed in Sec. 250.903(b). For detailed requirements pertaining to the ship-shaped hull and superstructure, you must refer to, and comply with applicable U.S. Coast Guard regulations.	1. The MOU gives the USCG sole jurisdiction over the structural design of ship-shaped hulls and superstructures.
250.905	**What plans must I submit under the Platform Verification Program**	
	If your platform, associated structure, or major modification meets the criteria in Sec. 250.903, you must submit all of the following plans required by this section:	
250.905(a)	Design verification plan. You may submit your design verification plan with or subsequent to the submittal of your Exploration Plan (EP) or Development and Production Plan (DPP). You may not submit your design verification plan before you submit your EP or DPP. Your design verification must be conducted by, or be under the direct supervision of, a registered professional civil or structural engineer or equivalent, with previous experience in directing the design of similar facilities, systems, structures, or equipment. Your design verification plan must include the following: (1) All design documentation specified in Sec. 250.902; (2) Abstracts of the computer programs used in the design process; and (3) A summary of the major design considerations and the approach to be used to verify the validity of these design considerations.	1. Naval architects should be included in the list of personal conducting the design verification. 2. The design verification plan requirements are confusing. The proposed regulation appears to be based on CVA processes for fixed platforms. These are not applicable for floating platforms. MMS should write separate requirements for CVA processes for fixed and floating systems. For floating systems, the operator submits the design documentation specified in (1), (2) and (3) directly to the CVA, not to MMS to give to the CVA. Is this a change in the program? Also, in most cases for a floating system, all the required information will not be given to the CVA at one time, but rather will be given to the CVA in a sequential manner as it is generated. It is recommended that MMS investigate the process used for the floating systems to date and modify the proposed rule accordingly.

250.905(b)	Fabrication verification plan. You must submit your fabrication verification plan to the Regional Supervisor, and the Regional Supervisor must approve your fabrication verification plan before you may initiate any related operations. Your fabrication verification plan must include the following: (1) Fabrication drawings and material specifications for artificial island structures and major members of concrete- and steel-gravity structures; (2) For jacket and floating structures, all the primary load-bearing members included in the space-frame analysis; and (3) A summary description of the following: (i) Structural tolerances; (ii) Welding procedures; (iii) Material (concrete, gravel, or silt) placement methods; (iv) Fabrication standards; (v) Material quality-control procedures; (vi) Methods and extent of nondestructive examinations for welds and materials; and (vii) Quality assurance procedures.	1. Again, this information is normally provided directly to the CVA by the operator. Is this meant to be a change in the program? Again, this appears to be based on fixed platforms and the processes used for floating platforms is different. We recommend that you investigate floating platforms processes and modify the rule accordingly.
250.905(c)	Installation verification plan. You must submit your installation verification plan to the Regional Supervisor, and the Regional Supervisor must approve your installation verification plan before you may initiate any related operations. Your installation verification plan must include: (1) A summary description of the planned marine operations; (2) Contingencies considered; (3) Alternative courses of action; and (4) The inspections to be performed, including an identification of areas to be inspected and the acceptance and rejection criteria to be used.	1. We assume that the inspections discussed in (4) are the inspections performed immediately after installation to ensure that no damage was done during the installation activities.

250.906	**When must I resubmit Platform Verification Program plans?**	
250.906(a)	You must resubmit any design verification, fabrication verification, or installation verification plan to the Regional Supervisor for approval if: (1) The CVA changes; (2) The CVA's or assigned personnel's qualifications change; or (3) The level of work to be performed changes.	
250.906(b)	If only part of a verification plan is affected by one of the changes described in paragraph (a) of this section, you can resubmit only the affected part. You do not have to resubmit the summary of technical details unless you make changes in the technical details.	
250.907	**When must I combine Platform Verification Program plans?**	
	You must combine fabrication verification and installation verification plans for manmade islands or platforms fabricated and installed in place.	

250.908	**How do I nominate a CVA?**	
250.908(a)	As part of your design verification, fabrication verification, or installation verification plan, you must nominate a CVA for the Regional Supervisor's approval. You must specify whether the nomination is for the design, fabrication, or installation phase of verification; for two phases; or for all three phases.	
250.908(b)	For each CVA, you must submit a qualification statement that includes the following: (1) Previous experience in third-party verification or experience in the design, fabrication, or installation of fixed offshore oil and gas platforms, similar facilities and other structures, floating platforms, manmade islands, other marine structures, and related systems and equipment; (2) Technical capabilities of the individual or the primary staff to be associated with the CVA functions for the specific project; (3) Size and type of organization or corporation; (4) In-house availability of, or access to, appropriate technology, i.e., computer programs and hardware and testing materials and equipment; (5) Ability to perform the CVA functions for the specific project considering current commitments; (6) Previous experience with MMS requirements and procedures; (7) The level of work to be performed by the CVA; and (8) A list of documents to be furnished to the CVA.	

250.909	**What are the CVA's primary responsibilities?**	
250.909(a)	The CVA nominated by you and approved by the Regional Supervisor must conduct specified reviews according to Secs. 250.910, 250.911, and 250.912.	
250.909(b)	The CVA must handle all data you provide in the strictest confidence. Other than to MMS, the CVA must not release any data without your consent	
250.909(c)	Individuals or organizations acting as CVAs for a particular platform or floating facility must not function in any capacity other than that of a CVA for that specific project whenever the additional activities would create a conflict of interest, or the appearance of a conflict of interest.	
250.910	**What are the CVA's primary duties during the design phase?**	
250.910(a)	The CVA must conduct the design verification to ensure that the proposed fixed or floating platform or major modification is designed to withstand the maximum environmental and functional load conditions anticipated during the intended service life at the proposed location.	

250.910(b)	The CVA must consider the applicable provisions of the documents listed in Sec. 250.901(a) and of Secs. 250.913 through 250.915 and use good engineering practice in conducting an independent assessment of the adequacy of all proposed: (1) Planning criteria; (2) Operational requirements; (3) Environmental data; (4) Load determinations; (5) Stress analyses; (6) Material designations; (7) Soil and foundation conditions; (8) Safety factors; and (9) Other pertinent parameters of the proposed design.	1. The scope of work for the CVA design review of drilling and production risers and tensioning systems is not clear. MMS should provide additional guidance on the CVA duties for these elements.
250.910(c)	The CVA must submit interim reports to the Regional Supervisor and to you, as appropriate.	
250.910(d)	The CVA, upon completion of the design verification, must prepare a final report which summarizes the material reviewed and the CVA's findings. The CVA must submit one copy of the report to the Regional Supervisor. The CVA must make this submittal within 6 weeks of the receipt of the design data or from the date the approval to act as a CVA was issued, whichever is later. The final report must include: (1) The CVA's recommendation that the Regional Supervisor either accept, request modifications, or reject the proposed design; (2) The particulars of how, by whom, and when the independent review was conducted; and (3) Any special comments the CVA may deem necessary.	1. These requirements appear to be based on fixed platforms and are not applicable to floating platforms. The requirement to submit the design CVA reports within 6 weeks of receipt of the design data for a fixed platform is too short a period. Recommend that the requirement be revised to within 90 days of the receipt of the design data, but at least prior to facility installation. For floating platforms, the complete design data is not provided to the CVA in one package; therefore, there should be some recognition of a phased approach. In all cases, the final report should be issued to MMS prior to installation. 2. It should also be recognized that for floating systems, the CVA has been verifying the design to the USCG requirements since MMS had not established design requirements. It will take the CVA longer to verify the design to the new requirements. In the cases where the CVA is also approving the design for Class and/or USCG, they will also have to verify the design to those requirements.

250.911	**What are the CVA's primary duties during the fabrication phase?**	
250.911(a)	The CVA must monitor the fabrication of the fixed or floating platform or major modification to ensure that it has been built according to the approved design plans and specifications and the fabrication plan.	
250.911(b)	The CVA must make periodic onsite inspections while fabrication is in progress. The CVA must verify the following fabrication items, as appropriate: (1) Quality control by lessee and builder; (2) Fabrication site facilities; (3) Material quality and identification methods; (4) Fabrication procedures specified in the approved plan and adherence to such procedures; (5) Welder and welding procedure qualification and identification; (6) Structural tolerences specified and adherence to those tolerances; (7) The nondestructive examination requirements and evaluation results of the specified examinations; (8) Destructive testing requirements and results; (9) Repair procedures; (10) Installation of corrosion-protection systems and splash-zone protection; (11) Erection procedures to ensure that overstressing of structural members does not occur; (12) Alignment procedures; (13) Dimensional check of the overall structure, including any turrets, turret and hull interfaces, any mooring line and chain and riser tensioner line segments; and (14) Status of quality-control records at various stages of fabrication.	

250.911(c)	The CVA must consider the applicable provisions of the documents listed in Sec. 250.901(a) and of Secs. 250.913 through 250.915 and use good engineering practice in conducting the independent assessment of the adequacy of the fabrication of the fixed or floating platform or major modification.	
250.911(d)	The CVA must submit interim reports to the Regional Supervisor and to you, as appropriate.	
250.911(e)	If the CVA finds that fabrication procedures are changed or design specifications are modified, the CVA must inform you. If you accept the modifications, then the CVA must so inform the Regional Supervisor.	
250.911(f)	The CVA must prepare a final report covering the adequacy of the entire fabrication phase. The CVA is not required in the final report to cover aspects of the fabrication already included in interim reports. The CVA must submit one copy of the report to the Regional Supervisor immediately after completion of the fabrication of the fixed or floating platform. In the report the CVA must: (1) Give details of how, by whom, and when the independent monitoring activities were conducted; (2) Provide any special comments that the CVA deems necessary; (3) Describe the CVA's activities during the verification process; (4) Summarize the CVA's findings (5) Confirm or deny compliance with the design specifications and the approved fabrication plan; and (6) Make a recommendation to accept or reject the fabrication.	1. The requirement to submit the fabrication CVA reports immediately after completion of the fabrication is not really defined. Recommend that the requirement be revised to within 90 days of the completion of fabrication, but at least prior to facility installation. 2. Please clarify if the fabrication CVA is expected to verify the center of gravity, etc that is normally considered to be part of the USCG review and approval.

250.912	**What are the CVA's primary duties during the installation phase?**	
250.912(a)	The CVA must perform the following: (1) Witness the loadout of the jacket, decks, piles, or structures from each fabrication site; (2) Review the towing records; (3) Witness the loadout of a floating platform; (4) Conduct an onsite survey after transportation to the approved location; (5) Witness the actual installation of the fixed or floating platform or major modification; (6) For floating platforms, witness the installation of the mooring, tethering, and anchoring systems; and (7) Determine that the platform has been installed at the approved location according to the approved design and the installation plan.	1. We note that there are no requirements for drilling and production risers and tensioning systems listed in the CVA duties. Although we believe that the installation of these systems should not be included in the CVAs duties, if MMS disagrees and includes them in the CVA process, then the CVAs duties should be specified.
250.912(b)	The CVA must consider the applicable provisions of the documents listed in Sec. 250.901(a) and of Secs. 250.913 through 250.915 and use good engineering practice in conducting an independent assessment of the adequacy of the installation activities. The CVA must verify the following parts of the overall installation process, as appropriate: (1) Loadout and initial flotation operations, if any; (2) Towing operations to the specified location; (3) Launching and uprighting operations; (4) Submergence operations; (5) Pile or anchor installation; (6) Installation of mooring and tethering systems; and (7) Final deck and component installations on fixed and floating offshore facilities.	

250.912(c)	The CVA must observe the installation activities, spot-check equipment, procedures, and recordkeeping, as necessary, to determine compliance with the applicable documents listed in Sec. 250.901(a) and of Secs. 250.913 through 250.915 and the approved plans, and immediately report to you and the Regional Supervisor any discrepancies or damage to structural members. You must obtain approval for modified installation procedures or for major deviations from approved installation procedures from the Regional Supervisor.	
250.912(d)	The CVA must submit interim reports to you and the Regional Supervisor, as appropriate.	
250.912(e)	The CVA must prepare a final report covering the adequacy of the entire installation phase and submit one copy of the final report to the Regional Supervisor within 2 weeks of completion of the installation of the platform. In the report, the CVA must: (1) Give details of how, by whom, and when the independent monitoring activities were conducted; (2) Provide any special comments that the CVA deems necessary; (3) Describe the CVA's activities during the verification process; (4) Summarize the CVA's findings; (5) Write a confirmation or denial of compliance with the approved installation plan; and (6) Provide recommendation to accept or reject the installation.	1. The requirement to submit the installation CVA reports within 2 weeks of completion of the installation is too short a period. Recommend that the requirement be revised to within 30 days of the completion of the facility installation.

<table>
<tr><td>250.913</td><td>What are the minimum structural fatigue requirements?</td><td></td></tr>
<tr><td></td><td>There are numerous circumstances in which it may be necessary to conduct a detailed analysis of cumulative fatigue damage on structural members and joints. The following table provides minimal requirements for structural members and joints which require a detailed analysis of cumulative fatigue damage.
<table>
<tr><th>If...</th><th>Then...</th></tr>
<tr><td>(a) There is sufficient structural redundancy to prevent catastrophic failure of the member or join under consideration.</td><td>The results of the analysis must indicate a minimum calculated life of twice the design life of the platform.</td></tr>
<tr><td>(b) There is not sufficient structural redundancy to prevent catastrophic failure of the member or joint.</td><td>The results of a fatigue analysis must indicate a minimum calculated life of three times the design life of the platform.</td></tr>
<tr><td>(c) The desirable degree of redundancy is significantly reduced as a result of fatigue damage.</td><td>The results of a fatigue analysis must indicate a minimum calculated life of three times the design life of the platform.</td></tr>
</table></td><td>1. The table does not appear to take into account the minimum requirements in API RP 2RD and 2SK. We recommend that the table be amended to meet the minimum requirements required in the documents incorporated by reference unless MMS in intending to relax those requirements. While we recognize that the table only contains absolute minimum requirements, we note that Class society requirements have a higher minimum threshold that must be met for Classed structures.</td></tr>
</table>

250.914	**What records must I keep for all primary structural members?**	
	You must record and retain the origin and relevant material test results of all primary structural materials during all stages of construction. Primary material is material that, should it fail, it would lead to a significant reduction in platform safety, structural reliability, or operating capabilities. Items such as steel brackets, deck stiffeners and secondary braces or beams would not generally be considered primary structural members (or materials).	1. It is not clear where these records must be maintained. It is recommended that they be maintained either on the facility, or in the offices of the Operator, or the Operator designate a location where they will be kept.
250.915	**Where must I locate foundation boreholes?**	
250.915(a)	For fixed or bottom-founded platforms and tension leg platforms, your maximum distance from any foundation pile to a soil boring must not exceed 500 feet.	1. Spatial variability of soil properties on the continental shelf is much more of an issue than for deepwater sites. For jackets on the shelf, max. distance between borings of 500 ft is reasonable for deterministic designs with conventional safety factors. However, it is possible to have cases where multiple borings are spaced farther apart, but the uncertainty at the platform site may be explicitly quantified and specific safety factors developed accordingly. 2. In lieu of the prescriptive requirement as proposed, the wording from IS/DIS 19901-4 could be adopted: Geotechnical and Foundations Design Considerations. Results of previous integrated geoscience studies and experience at the site may enable the design and installation of additional structures without additional investigation. The onsite studies should extend throughout the depth and aerial extent of soils that will effect or be affected by installation of the foundation elements. The number and depth of borings and extent of soil testing will depend on the soil variability in the vicinity of the site, environmental design conditions (e.g. earthquake loading and slope instability) to be considered in the foundation design, the structure type and geometry, and the definition of geological

		hazards and constraints. 3. For TLPs in deepwater, the industry practice is to conduct an integrated geotechnical/geology study of the site to assess spatial variability of soil stratigraphy and physical properties. Given the same depositional environment and geologic processes, practice has shown at several prominent deepwater basins that borings up to 10 miles apart do not produce appreciably different pile sizes considering the same load. Also, the uncertainty in soil properties at the platform site may be explicitly quantified and specific safety factors developed accordingly.
250.915(b)	For deepwater floating platforms which utilize catenary or taut-leg moorings, you must take borings at the most heavily loaded anchor location, at the anchor points approximately 120 and 240 degrees around the anchor pattern from that boring, and, as necessary, other points throughout the anchor pattern to establish the soil profile suitable for foundation design purposes.	1. Recognizing that deepwater developments with moored floaters and many subsea wells may cover a very large lateral extent (with the layout in a constant state of flux), an alternative site investigation strategy would be to base geotechnical data collection locations on the prevailing geology rather than specific facility locations. An integrated geotechnical/geology study of the development area is required for this methodology – i.e., stratigraphy must be known at any specific foundation location and uncertainties quantified. Specific safety factors may be developed accordingly. 2. This section is prescriptive in nature and we recommend that a performance based requirement be adopted.

250.916	**What in-service inspection requirements must I meet?**	
250.916(a)	You must develop an in-service inspection plan. As a minimum, your plan must fulfill the recommendations of the appropriate API documents listed in Sec. 250.901(a). Your plan must specify the type, extent, and frequency of in-place inspections which your contractor will conduct for both the above water and the under water structure of all platforms, and pertinent components of the mooring systems for floating platforms.	1. For floating facilities the In-Service Inspection Program (ISIP) duplicates the vessel inspection program already required and being done by the USCG. MMS should coordinate any requirements for ISIP review and inspection oversight with the USCG, to eliminate duplicate or parallel programs. 2. Since the proposed regulation calls for submitting an inspection with a platform application, does MMS envision that inspection plans be generated for existing platforms? If so, do they have to be submitted to MMS for review or approval? Does each facility have to have its own plan? Can one plan cover all of an operators structures or does each structure have to have its own plan?
250.916(b)	You must submit a report annually on November 1 to the Regional Supervisor that must include : (1) A list of fixed or floating platforms inspected in the preceding 12 months; (2) The extent and area of inspection; (3) The type of inspection employed, i.e., visual, magnetic particle, ultrasonic testing; and (4) A summary of the testing results indicating what repairs, if any, were needed and the overall structural condition of the fixed or floating platform.	1. For floating facilities the In-Service Inspection Program (ISIP) duplicates the vessel inspection program already required and being done by the USCG. MMS should coordinate any requirements for ISIP review and inspection oversight with the USCG, to eliminate duplicate or parallel programs.
250.917	**What are the requirements for fixed or floating platform removal and location clearance?**	
	You must remove all structures according to Secs. 250.1725 through 250.1730 of Subpart Q--Decommissioning Activities--of this part.	
250.918	**What records must I keep?**	
	You must compile, retain, and make available to MMS representatives for the functional life of all fixed or floating platforms:	1. It is not clear where these records must be maintained. It is recommended that they be maintained either on the facility, or in the offices of the Operator, or the Operator designate a location where they will be kept.

250.918(a)	The as-built drawings;	
250.918(b)	The design assumptions and analyses	
250.918(c)	A summary of the fabrication and installation nondestructive examination records; and	
250.918(d)	The inspection results from the inspections required by Sec. 250.916.	
Changes to Subpart J, Pipelines		
250.1002	**Design requirements for DOI pipelines.**	
250.1002(b)(4)	If you are installing pipelines constructed of unbonded flexible pipe, they must be built according to the standards and the third-party review standards for an independent verification agent (IVA) in API Spec 17J.	
250.1002(b)(5)	You must construct pipeline risers for tension leg platforms and other floating platforms according to the design standards of API RP 2RD.	
Sec. 250.1007	**What to include in applications.**	
250.1007(a)(4)	If your application involves using unbonded flexible pipe, you must include a review by a third-party IVA according to API Spec 17J.	1. It should be recognized that the third party review may not be available at the time the initial pipeline application is submitted. This requirement should be reworded to say that the third party review must be submitted prior to the pipeline application being approved.