

Appendix I | POTENTIAL LEGAL ISSUES ASSOCIATED WITH VESSELS  
EMPLOYING DYNAMIC POSITIONING SYSTEMS

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11 Feb 2011

**MEMORANDUM**

From: [REDACTED]  
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Reply to: CG-0941  
Attn of: Stephen Hubchen  
2-1198

To: CG-5

Subj: POTENTIAL LEGAL ISSUES ASSOCIATED WITH VESSELS EMPLOYING  
DYNAMIC POSITIONING SYSTEMS

Ref: (a) 46 U.S.C. Parts B, E, and F  
(b) 43 U.S.C. Subchapter III  
(c) 46 C.F.R. Subchapters B, I-A and N  
(d) 33 C.F.R. Subchapter N  
(e) NVIC 8-68  
(f) TJAG memorandum - POTENTIAL IMPACTS ON COAST GUARD PROGRAMS  
OF SUPREME COURT RULING IN STEWART V. DUTRA INTERPRETING  
"VESSEL" UNDER 1 U.S.C. §3, 20 July 2006

This memorandum was prepared to assist Coast Guard programs in considering issues related to Dynamic Positioning technology on vessels. While not written to address the DEEPWATER HORIZON incident, this document was drafted with an appreciation that the analyses and conclusions may be relevant to the inquiry of the USCG-BOEMRE Joint Investigation into the Marine Casualty, Explosion, Fire, Pollution, and Sinking of the Mobile Offshore Drilling Unit DEEPWATER HORIZON with Loss of Life in the Gulf of Mexico 21-22 April 2010. As such, if deemed helpful to that inquiry, this memorandum may be appended to the report of the Joint Investigation.

**Executive Summary**

1. Coast Guard regulations need to be updated to account for the emergence of Dynamic Positioning (DP) aboard vessels. Current regulations do not expressly address DP and may therefore extend certain requirements that are not practical for DP vessels. For example, under existing regulatory definitions, watercraft operating with a DP system are considered: (1) "self-propelled motor vessels"; (2) "underway"; and (3) most relevant for Mobile Offshore Drilling Units maintaining position with a DP system (without an anchor or load bearing connection to the bottom), cannot be considered "on location." Significant issues relating to manning and operational conditions also arise when considering foreign registered DP vessels operating in the navigable waters of the U.S. or engaged in U.S. regulated activities on the outer continental shelf (OCS) which further reflect a need for new regulations and possible legislative changes to address the shortcomings in the current U.S. regulatory regime.

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### Background

2. This memorandum is written to address legal issues associated with vessels that operate with DP systems. It addresses both vessels of the U.S.<sup>1</sup> and foreign vessels,<sup>2</sup> including the impact of DP systems on operating requirements on vessels engaged in OCS activities on U.S. OCS, territorial seas and inland waters, as well as in the case of U.S. vessels, on the high seas or the waters of a foreign country. In general, a DP system is a computer controlled system that automatically maintains a vessel's position and heading by use of its own propellers and/or thrusters.<sup>3</sup> Position reference sensors (most commonly differential GPS), combined with wind sensors, motion sensors and heading (gyro compass), provide information to a computer pertaining to the vessel's position and the magnitude and direction of environmental forces affecting its position. The computer will direct the vessel's propulsion and rudder systems to maintain a fixed position and heading. Although a vessel operating under a DP system is capable of making way, its primary purpose is station keeping. The functional difference is that, unlike traditional station keeping, DP does not use anchors or a load bearing connection to the ocean bottom. Additionally, vessels may use DP systems to accurately follow a course, as in survey operations.

3. A vessel operating under DP does not easily fit into existing U.S. statutes and regulations administered by the Coast Guard. In fact, the term "Dynamic Positioning" is only referenced once in Coast Guard regulations, the context of which is not useful in this analysis.<sup>4</sup> The offshore drilling industry is particularly aware of the deficiencies in current regulations, especially whether MODUs operating in DP mode are "underway" or "on location."<sup>5</sup> These statutes and regulations were written well before the use of DP systems became so prevalent and have not been amended to take their unique characteristics into account. Furthermore, technology is continually outpacing existing regulatory requirements. These existing requirements may not be well-suited to DP vessels, especially with respect to minimum manning, training, system requirements (including safety equipment) and credited seagoing experience; all depend on the classification of a subject vessel within the current regulatory regime, along with a determination of its operating condition. As stated, the laws and regulations have not kept up with the burgeoning DP capability on these vessels.

4. Some attempts to address the regulatory shortcomings through policy documents have been made. However, these are at best short-term fixes and reflect policy interpretations. Various program elements within the Coast Guard are beginning to update our regulations. In so doing,

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<sup>1</sup> 46 U.S.C. § 116 states, "[i]n this title, the term "vessel of the United States" means a vessel documented under chapter 121 of this title, (or exempt from documentation under section 12102(c) of this title), numbered under chapter 123 of this title, or titled under the law of a State."

<sup>2</sup> 46 U.S.C. § 110 states, "[i]n this title, the term "foreign vessel" means a vessel of foreign registry or operated under the authority of a foreign country."

<sup>3</sup> See IMO MSC/Circ. 645, para. 1.3.1

<sup>4</sup> The sole reference of note is 46 C.F.R. § 113.40-10 which mentions DP systems in relation to requirements of Rudder Angle Indicator Systems. DP is not defined or referenced in statute.

<sup>5</sup> See International Association of Drilling Contractors (IADC) 19 February 2010 letter commenting on USCG's 17 November 2009 Notice of Proposed Rulemaking, Docket Number USCG-2004-47914.

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they are attempting to reconcile a DP vessel's status when determining pertinent issues within their sphere of responsibility and have requested legal analysis. The issues with which they are confronted include:

- a. A determination of minimum manning requirements for a vessel operating (often for extended duration) in a DP system status. This includes both the complement of personnel and the chain of command depending on operational status;
- b. A determination of a watercraft's status when the DP system is used in very limited circumstances such that it could potentially be considered incidental to its operational purpose;
- c. A determination of whether a vessel operating with a DP system may, in certain circumstances, satisfy operational requirements of vessels that have traditionally used a conventional mooring (anchor) or bottom bearing system; and
- d. A determination of a credited sea service for seafarers serving aboard vessels engaged in extended DP operations.

5. This memorandum's purpose is to place DP vessels within the current legal framework and address those laws and regulations that may need to be amended and/or created so the Coast Guard can provide industry with clarity and direction. The primary issues addressed in this memorandum are:

- a. Whether vessels operating under DP are considered "self propelled";
- b. Whether vessels operating under DP are considered "on location";
- c. Whether vessels operating under DP are considered "underway";
- d. Manning and operating condition implications of classifying DP vessels as self-propelled and "underway" and/or engaged in drilling on our OCS; and
- e. U.S. authority over foreign vessels using DP systems engaged in OCS activities<sup>6</sup> on our OCS.

### Self-propelled motor vessel

6. The determination of whether a particular watercraft is a "vessel" is critical because it sets the foundation of the regulatory regime. TJAG memorandum (ref. (f)) regarding the definition of "vessel" following the Supreme Court decision, *Willard Stewart v. Dutra Construction Company*, 543 U.S. 481 (2005), discusses the criteria to be considered. This memorandum does not attempt to replicate the *Stewart* memo analysis, but notes 1 U.S.C. § 3's definition of "vessel,"<sup>7</sup> following the Supreme Court decision in *Stewart*, has been somewhat narrowed.<sup>8</sup> Each case is potentially unique, depending on the specific factual determination. There is less emphasis on what is possible and more on what is practicable when determining whether a particular watercraft qualifies as a vessel.<sup>9</sup>

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<sup>6</sup> 33 CFR 140.10 defines OCS activities as, "any offshore activity associated with exploration for, or development or production of, the minerals of the Outer Continental Shelf."

<sup>7</sup> The word "vessel" includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water. 1 U.S.C. § 3.

<sup>8</sup> *Stewart* at 494.

<sup>9</sup> *Id.*

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7. Assuming a watercraft is a “vessel,” the determination of whether it is a “motor vessel” is significant since self-propelled vessels are, in addition to requirements related to their design and equipment, typically subject to 46 U.S.C. Chapters 81-83, addressing minimum manning complements, required credentials, citizenship and watchstanding requirements. 46 U.S.C. § 2101(16) defines “motor vessel” as “a vessel propelled by machinery other than steam.” Self-propelled vessels are addressed in several locations in U.S. regulation. 46 C.F.R. § 10.107 defines “self propelled” as having the same meaning as the terms “propelled by machinery” and “mechanically propelled.”<sup>10</sup> 46 C.F.R. § 42.05-63 notes that “(t)he terms ship(s) and vessel(s) are interchangeable or synonymous words, and include every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on water.”<sup>11</sup> These provisions provide a very broad definition of what constitutes a self-propelled vessel such that virtually any watercraft that is equipped with machinery that can be used to propel itself would fall under the classification. There are no requirements with respect to duration of operation or distance traveled. The available case law is sparse with respect to the designation of vessels that operate with DP. Cases that mention DP do so in a context that is not germane to the purposes of this memo, but interestingly conclude that DP vessels are self-propelled.<sup>12</sup> As such, any vessel operating under its DP system unless and until our regulations are updated and provide differently would be considered a self-propelled vessel.

8. In 1968, NVC (NVIC) 8-68 recognized that application of such a broad definition of “self propelled” would result in certain unintended (and undesirable) consequences. Some watercraft - such as barges with “kickers” or tunnel type thrusters used solely to aid in assisting mooring or transiting confined areas, that were not intended to be subject to U.S. inspection and manning requirements, would be classified as self propelled thus subjecting them to additional manning and U.S. inspection regulations. NVC 8-68 attempted to solve that perceived problem by simply interpreting such vessels to be exempt. The goal was to exclude certain vessels from those requirements that would be applicable if the vessels were determined to be “self propelled.” NVC 8-68 exempted those vessels where the equipped machinery was used solely in limited operations whereby the propulsion was incidental to its intended purpose of assisting steerage. NVC 8-68, while a policy document, is nevertheless instructive to the present issue; it notes that “Vessels equipped with directional maneuvering equipment and/or substantial propulsion assist units will *normally* be considered as self-propelled vessels. . .” (emphasis added). This would include vessels equipped with DP systems.

9. In light of the broad and generally applicable regulatory definitions of “motor vessel” and “self propelled,” a vessel operating in DP mode, regardless of whether the involved machinery is also used for the vessel making way (transiting), is considered a self-propelled vessel.

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<sup>10</sup> Although this section of the C.F.R. applies to licensing and credentialing of merchant mariners, it is useful in a general context.

<sup>11</sup> This section of the C.F.R. applies to the application of load lines, but is also instructive.

<sup>12</sup> See *Garry v. Exxon Mobil Corporation*, 2004 WL 3676210 (E.D.La.) (noting the subject DP vessel was self-propelled); *Global Industries v. Pipeliners Local*, 2006 WL 724815 (W.D.La.) (distinguishing a vessel operating under DP from a fixed structure while operating in the OCS).

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On location

10. As noted above, motor vessels are subject to specific manning requirements, one of which involves minimum numbers of licensed individuals as set forth in 46 U.S.C. § 8301. Subsection (c) of that section effectively exempts certain vessels operating under specific conditions, one of which is a MODU when “on location.” A MODU is considered a vessel.<sup>13</sup> As DP systems on MODUs are becoming more common, the question of whether a MODU, operating with DP during drilling operations, is considered “on location,” must be addressed.

11. 46 C.F.R. § 10.107 (Definitions in subchapter B) states that “*On location* means that a mobile offshore drilling unit is bottom bearing or moored with anchors placed in the drilling configuration.” This precludes a vessel maintaining a fixed position with DP from being considered “on location” under our regulations, since there is no physical connection to the ocean bottom that either holds (anchors) the vessel in place or supports it (bottom bearing, as in a jack-up rig). It is noted that a MODU operating under DP may well have a physical connection to the ocean bottom (sometimes referred to as “hooked up” or “latched up”), such as where riser pipelines or drilling lines run from the MODU to the ocean bottom. However, with no actual load involved (i.e., the connection to the ocean floor is not serving as an anchor or support), the regulatory definition of “on location” in 46 C.F.R. § 10.107 is not satisfied. As such, under our current regulations, any vessel holding position solely through the use of its DP system cannot be “on location.”

Underway

12. A corollary to the “on location” issue is whether a vessel operating with DP is considered “underway.” Whether a vessel is considered underway will determine what navigation rules must be followed. 46 C.F.R. § 10.107 defines “underway” as

“a vessel is not at anchor, made fast to the shore, or aground. When referring to a mobile offshore drilling unit (MODU), underway means that the MODU is not in an on-location or laid-up status and includes that period of time when the MODU is deploying or recovering its mooring system.”

Both the International and Inland Navigation Rules have the same definition, except for the second sentence referencing MODUs.<sup>14</sup> “Underway,” as defined in our regulations and in the navigation rules is essentially contrary to the “on location” definition; that definition even expressly referring to MODU’s on location as being *not* underway. As such, because a vessel operating under DP is not at anchor, nor is it made fast to shore or the ocean bottom,<sup>15</sup> it is by

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<sup>13</sup> See 46 U.S.C. § 2101(15a).

<sup>14</sup> For the international rule, see Convention on the International Regulations for Preventing Collisions at Sea, 1972, as codified by 33 U.S.C. § 1602 (Navigation Rule 3(i)); for the inland rule, see 33 U.S.C. § 2003(h).

<sup>15</sup> The term “made fast” is not defined in regulation. Some common definitions state that “made fast” is merely the process of connecting a line to an object. However, in the context of the “underway” definition, it implies more than simply being attached, requiring that the connection be capable of supporting a load and ensuring that the vessel is secure in its position. The other two controlling terms, “anchor” and “aground,” clearly denote a level of security

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definition "underway," although perhaps not *making way*, assuming it is essentially maintaining a fixed position.<sup>16</sup>

13. As noted above, the current definitions in U.S. regulation and law were enacted and published well before the rising prominence of DP systems on vessels. There has been some opinion within USCG programs that a ship operating under DP should be treated the same as a vessel in a traditional anchor mooring system, assuming sufficient precautions (such as operational system redundancies) are taken,<sup>17</sup> or, in the alternative, that its status at least be differentiated from that of a traditional underway vessel. This approach to DP classification would be a policy decision; there is no statutory or international treaty prohibition to this approach. However, such a position should be adopted through a significant rulemaking to modify both the definitions of "on location" and "underway," along with detailed requirements describing the DP systems to be used.

### Manning Implications

14. Concluding that a watercraft operating under a DP system is to be classified as an underway, self propelled vessel (*not* "on location") results in that vessel being subject to the somewhat inflexible statutory requirements of 46 U.S.C. Part F, pertaining to the manning of vessels, particularly §§ 8101(complement), 8103(citizenship requirements), 8104(watches), and 8301(minimum number of licensed individuals).

15. Manning requirements are generally dependent on the type and size of a vessel. Because there are no manning exceptions specific to DP-equipped vessels, a vessel that is a "DP vessel" would not be subject to different standards. As an example, a MODU that is operating under DP would be considered a self-propelled MODU. Any exemptions that may apply to its manning requirements would be primarily based on it being a MODU. The fact that it operates under a DP system would only indirectly affect its manning requirements.<sup>18</sup> Similarly, an offshore supply vessel (OSVs) that holds station with a DP system would be subject to the manning requirements of 46 U.S.C. §§ 8301(b) and 8104(g) in the same way as an OSV with a traditional propulsion system.

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beyond that of mere attachment. Consequently, a MODU, connected to the ocean floor with a riser or some other non-load bearing manner, would not be considered made fast. *See also Virginia Intern. Terminals, Inc. v. M/V Katsuragi*, 263 F.Supp.2d 1025, 1038-39 (E.D.Va., 2003)(in the mooring context, supporting the concept that a line must be capable of supporting a load before a vessel is considered "made fast.")

<sup>16</sup> Although considered underway, a DP vessel may be "restricted in her ability to maneuver" as defined by Navigation Rule 3(g) (both Inland and International) depending on the operations being conducted from the vessel at the time.

<sup>17</sup> *See* Coast Guard D8 22 January 2003 Memorandum addressing the use of DP systems by OSVs during oil and hazmat transfers.

<sup>18</sup> 46 U.S.C. § 8101(a)(2) allows that "the specialized nature of the unit" may be considered when imposing manning requirements on a MODU. This could arguably include the DP system used. However, the primary factor to consider would be that the vessel is a MODU, not a "DP vessel." Additionally, since a MODU operating under DP would be considered a self-propelled MODU, it would be subject to 46 CFR §15.520(d), requiring it be under the command of a licensed master who also holds an OIM endorsement at all times.

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16. A distinction must be made between U.S. and foreign registered vessels. U.S. jurisdiction over all vessels engaged in OCS activities is described below.<sup>19</sup> However, virtually all manning regulations in the C.F.R. are specific to U.S. flagged ships. Vessels flagged by countries that are parties to international safety conventions to which the U.S. is also a party and offering the same privileges to U.S. flagged vessels are generally granted reciprocity.<sup>20</sup> As such, while a U.S. registered MODU equipped with a DP system must be under the command of a Master (who also holds an Offshore Installation Manager endorsement),<sup>21</sup> the manning requirements of a foreign registered MODU are not subject to the same requirement.

### Authority over foreign vessels utilizing DP systems engaged in OCS activities on U.S. OCS

17. The U.S. has certain authority of over any vessel that operates on waters subject to its jurisdiction and may penalize persons operating vessels in an unsafe manner.<sup>22</sup> With few exceptions, vessels operating in U.S. waters are subject to inspections that are broad in scope<sup>23</sup> and the authority to promulgate regulations is well established.<sup>24</sup> In addition, U.S. authority over foreign registered vessels engaged in OCS activities within the outer continental shelf is set forth in 43 U.S.C. §§ 1331 - 1356a (Outer Continental Shelf Lands Act – “OCSLA”). 43 U.S.C. § 1332(6) states:

operations in the Outer Continental Shelf should be conducted in a safe manner by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of blowouts, loss of well control, fires, spillages, physical obstruction to other users of the waters or subsoil and seabed, or other occurrences which may cause damage to the environment or to property, or endanger life or health.

33 C.F.R. § 140.3 further clarifies OCSLA as applying to vessels operating on the OCS that are engaged in “OCS activities.” This does not, however, include every vessel that is operating in waters over the OCS. Vessels operating in waters above the OCS, but not engaged in OCS activities as defined by 33 C.F.R. § 140.10 are not subject to OCSLA.<sup>25</sup> Regulations may be promulgated by the Coast Guard as deemed necessary.<sup>26</sup>

18. International instruments addressing DP systems aboard vessels are also lagging behind the emerging technology. To date, only broad advisory documents have been adopted addressing vessel systems<sup>27</sup> and more recently the training and experience of personnel,<sup>28</sup> allowing industry

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<sup>19</sup> See paragraph 19, *infra*.

<sup>20</sup> 46 U.S.C. § 3303.

<sup>21</sup> 46 CFR § 15.520(d). The status of the vessel (underway, at anchor, etc.) is irrelevant to this requirement.

<sup>22</sup> 46 USC §§ 2301-2302.

<sup>23</sup> 46 U.S.C. §§ 3301-3318.

<sup>24</sup> 46 U.S.C. §3306.

<sup>25</sup> *Alex v. Wild Well Control*, 2009 WL 2599782 (E.D.La.)(not reported in Fed.Supp.).

<sup>26</sup> 43 U.S.C. § 1347(c).

<sup>27</sup> IMO MSC/Circ 645 *Guidelines for Vessels with Dynamic Positioning Systems*, (6 June 1994); The IMO Code for Construction and Equipment of Mobile Offshore Drilling Units, 2009 (MODU Code), devotes one sentence to DP

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leaders such as the International Marine Contractors Association (IMCA) and the Nautical Institute (NI) to publish guidance. Some international bodies desire that DP standards be made mandatory, but the current consensus is that broad guidance is better suited to address the wide variances in DP systems coupled with the rapidly expanding nature of this technology.<sup>29</sup>

19. As noted above, the legal views expressed herein, as they apply to U.S. registered vessels, have not universally been adopted by the international community. For example, the term “on location,” a creature of U.S. law and regulation, is without an international equivalent. IMO MSC/Circular 645 (*Guidelines for Vessels with Dynamic Positioning Systems*), only defines the term “position keeping” as the act of “. . . maintaining a desired position.”<sup>30</sup> The IMO MODU Code states that MODUs utilizing DP systems as “. . . a sole means of position keeping should provide a level of safety equivalent to that provided for anchoring arrangements.”<sup>31</sup> The Code furthermore exempts MODUs from complying with the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (“COLREGs”) “when stationary and engaged in drilling operations.”<sup>32</sup> As such, although not specifically stated, the available international guidance strongly suggests that a MODU operating under a DP system would likely be considered in the same status as one that is traditionally anchored. This does not mean that a foreign MODU (or any vessel) may ignore U.S. law in favor of international guidelines but, at a minimum, it results in the potential for significant confusion, particularly when U.S. regulations allow for a foreign MODU to comply with the “operating standards of the [MODU Code]” as a means of complying with U.S. law.<sup>33</sup> This confusion is compounded, since the MODU Code itself states that in certain circumstances, a MODU should comply with the laws of the coastal state in which it is operating.<sup>34</sup>

20. Additionally, the international community has been unable to agree on any mandatory international manning (numbers of required credentialed mariners on board) standards. The IMO Convention on Standards of Training and, Certification and Watchkeeping for Seafarers, July 7, 1978 (STCW) is not particularly relevant to the issue of such manning. It is principally concerned with safety by establishing minimum competency of seafarers; it says nothing about the minimum number of required seafarers on board, only stating that ships must comply with “applicable safe manning requirements.”<sup>35</sup> The level of on board manning is only indirectly

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systems, noting they should be as safe as that of anchoring arrangements. When operating on the OCS, the MODU Code is only mandatory to those foreign MODUs subject to 33 CFR § 146.205(c).

<sup>28</sup> STCW Code B-V/f, *Guidance on the training and experience for personnel operating dynamic positioning systems*, (adopted 2 July 2010).

<sup>29</sup> IMO subcommittee Standards of Training and Watchkeeping (STW) *Report To The Maritime Safety Committee*, STW 40/14, p. 25 (23 February 2009).

<sup>30</sup> IMO MSC/Circ 645, p. 3. While the two terms – “on location” and “station keeping” are similar in concept, and may have similarities in some usages, they are not legally equivalent, at least until the USCG takes steps consistent with the APA to make them so for purposes of the laws it administers.

<sup>31</sup> MODU Code, at paragraph 4.13

<sup>32</sup> *Id.*, at paragraph 14.8.1.

<sup>33</sup> 33 C.F.R. § 146.205(c) allows foreign MODUs to comply with the MODU Code as an alternative to complying with the 46 C.F.R. Part 109.

<sup>34</sup> MODU Code, at paragraph 14.8.2.

<sup>35</sup> STCW Regulation 1/4, at paragraph 1.2.

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affected by the convention due to watchkeeping standards,<sup>36</sup> which dictate minimum hours of rest requirements. Furthermore, while minimum standards with respect to watchstanding durations may affect the *number* of personnel required aboard a vessel to insure safe operation and navigation, it will not delineate the orders of responsibility or chain of command for those serving any type of vessel. Therefore, each flag state determines the minimum safe manning required on the safe manning certificate for its registered MODUs.<sup>37</sup>

21. Pursuant to 33 CFR § 146.205, foreign MODUs engaged in OCS activities must comply with one of three regulatory schemes outlined therein, one of which is compliance with the IMO MODU code. Other than requiring<sup>38</sup> that the owner or operator of a MODU designate a person in charge for emergency situations, there are no manning requirements in the MODU Code. As noted above, the MODU code does require compliance with coastal states' safety of navigation laws, but only "when stationary and engaged in drilling operations."<sup>39</sup> It is unclear whether this was intended to apply to MODUs holding position with a DP system. It is unstated what is meant by "requirements for the safety of navigation," whether this is limited to appropriate navigation lights/shapes for a fixed structure or whether this includes all manning and competency requirements of U.S. law and regulation. Reading paragraph 14.8.2 as a whole, noting that it pertains only to stationary MODUs, strongly suggests the former.<sup>40</sup>

22. The U.S. does not prescribe manning requirements for a foreign MODU operating in the OCS adjacent to U.S. territories, other than to require that "[t]he owner or operator shall designate by title and order of succession the person on each OCS facility who shall be the 'person in charge.'"<sup>41</sup> This manning requirement is not specifically effected by the operational status of a MODU, be it underway, on location, at anchor or some other condition. Nor does the U.S. differentiate between foreign MODUs operating with DP systems (self-propelled) and those without. Because the international standards (guidance) do not establish a manning requirement and such mandatory manning standards are a long way off (if ever),<sup>42</sup> there is a gap with respect to the manning and operational requirements for foreign registered MODUs that operate in the U.S. OCS.

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<sup>36</sup> See STCW Chapter VIII/1 of the Annex and STCW Code Section A-VIII/1.

<sup>37</sup> The U.S. could, but does not currently dictate additional manning requirements for foreign flagged MODUs engaged in OCS activities on the U.S. OCS under OCSLA authorities as well as customary international law.

<sup>38</sup> Use of the word "requiring" may be too strong since the MODU Code uses the word "should" throughout its text. IMO's use of "should" is reserved for guidance (non-mandatory) publications. Nonetheless, the MODU code may be made mandatory through U.S. regulation as in 33 C.F.R. § 146.205(c).

<sup>39</sup> MODU Code, at paragraph 14.8.2.

<sup>40</sup> In the alternative, foreign MODUs would have to comply with all U.S. laws regarding manning and credentialing, including the alternative provided by 46 U.S.C. § 8101(a)(2), dictating that manning requirements for MODUs "consider the specialized nature of the unit."

<sup>41</sup> 33 C.F.R. § 146.5.

<sup>42</sup> Some guidance addressing manning that has come from the IMO STW subcommittee. The most recent attempt to adopt mandatory requirements occurred in January 2010 at STW 41 and had very little support. At most, only mandating the *process* of determining safe manning levels enjoys any broad support. See STW 41/16 Report To The Maritime Safety Committee, pp.42-44, (22 January 2010).

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Conclusion

23. Under current law, a watercraft operating with a DP System is an underway, self-propelled vessel, and subject to all the regulatory requirements of "traditional" vessels. While operating in DP mode, a vessel cannot be considered "on location."

24. Subject to the provisions of OCSLA and our implementing regulations in 33 C.F.R. Part 140-147, and to the reciprocity provision in 46 U.S.C. § 3303, 46 U.S.C. Part F, pertaining to the manning of vessels, particularly §§ 8101(complement), 8103(citizenship requirements), 8104(watches), and 8301(minimum number of licensed individuals) applies to vessels in DP mode.

25. There is sufficient statutory authority to address and clarify DP vessels' status in regulations and both the Coast Guard and industry would be well served by doing so. Items where clarification would be beneficial include:

a. New and/or amended definitions in the regulations concerning credentialing, manning, ship design and operations, including:

- (1) DP systems;
- (2) Self-propelled MODU;
- (3) Station Keeping with DP systems;
- (4) Clarifying *on location* to specifically exclude MODUs operating under DP; and
- (5) Clarifying *underway* to include vessels operating under DP;

b. Regulations addressing the need for competency standards for seafarers serving aboard vessels equipped with DP systems;

c. Regulations addressing crediting sea service for seafarers serving on vessels using DP for extended periods;

d. Regulations addressing DP systems used for station keeping;

e. Regulations addressing the unique manning requirements of vessels equipped with DP systems. This is one area that would additionally require a statutory change in 46 U.S.C. § 8101(a), similar to what is currently provided therein for sailing school vessels and MODUs.

f. Regulations addressing manning and operational requirements of self-propelled MODUs in 46 C.F.R. Part 109; and

g. Regulations addressing the manning requirements of foreign registered vessels, including MODUs, operating with DP systems in the OCS.

Any new regulations to be promulgated should consider current international standards/practices and that DP technology is constantly evolving.

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