Clinical Memo

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Topic: Rigs to Renewables

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I. INTRODUCTION

As a result of the Energy Policy Act of 2005, the proposed Rigs to Renewables program ("the Program") will fit within the existing statutory and regulatory framework surrounding renewable energy and offshore mineral and gas facilities.[1] The Act provides the foundation for the Program by explicitly authorizing the U.S. Department of the Interior's (DOI) Mineral Management Service (MMS) to grant leases for renewable energy-related uses on federal Outer Continental Shelf (OCS) lands.[2] The Program could address issues of federal agency jurisdiction, regulatory compliance, and liability by analogizing to the existing Rigs to Reefs program (RTR).[3] In establishing RTR, the National Fishing Enhancement Act (NFEA) and the National Artificial Reefs Plan (NARP) delineated the roles of the federal and state governments in offshore projects, described the authority of pertinent federal agencies, and established workable strictures governing party liability.[4] While the Program would undoubtedly face its own unique challenges, utilizing the existing statutory and regulatory framework of the Energy Policy Act and RTR would help to ensure the Program's viability.[5]

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[1] *See* 33 U.S.C. §§ 2101-2106; Energy Policy Act of 2005, Pub.L. 109-58 §388 (2005); REEF PLAN REVISION, *supra* note 3.

[2] Energy Policy Act of 2005 §388; the OCS is defined *infra*, notes 8-9 and accompanying text

[3] U.S. DEP'T OF THE INTERIOR, MINERALS MGMT. SERV., LES DAUTERIVE, RIGS-TO-REEFS POLICY, PROGRESS, AND PERSPECTIVE at iv (2000) [hereinafter DAUTERIVE]; NAT'L MARINE FISHERIES SERV., U.S. DEP'T OF COMMERCE, NOAA TECHNICAL MEMORANDUM NMFS OF-6, NATIONAL ARTIFICIAL REEF PLAN (1985); NAT'L MARINE FISHERIES SERV., U.S. DEP'T OF COMMERCE, DRAFT NAT'L ARTIFICIAL REEF PLAN REVISION (2002) [hereinafter REEF PLAN REVISION].

[4] 33 U.S.C. §§ 2101-2106 (2000); REEF PLAN REVISION, *supra* note 3.

[5] 33 U.S.C. §§ 2101-2106;

II. BACKGROUND: OFFSHORE LEASING

All of the land on which U.S. offshore mineral exploration takes place is owned either by the federal or state governments.[6] State governments generally have jurisdiction up to three nautical miles offshore, although some Gulf Coast states' jurisdictions are larger.[7] The federal government has jurisdiction between the outer limit of state waters and the inner boundary of international waters, which begins approximately 200 nautical miles offshore.[8] This swath of ocean is also known as the Outer Continental Shelf (OCS).[9] MMS defines OCS as "submerged lands, subsoil, and seabed between the seaward extent of states' jurisdiction and the seaward extent of federal jurisdiction."[10] Since the majority of U.S. offshore mineral extraction occurs on the OCS, the majority of offshore rigs are subject to federal regulations.[11] Thus the Rigs to Reefs and the proposed Rigs to Renewables programs both must adhere to federal regulations to the extent the programs involve rigs located on the OCS.[12]

The Outer Continental Shelf Management Act delegates responsibility for regulating offshore mineral extraction to MMS.[13] MMS is responsible for leasing the rights to mineral exploration and extraction on federally owned land, and for regulating the operation and decommissioning of the facilities used in the exploration and extraction

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[6] U.S. DEP'T OF ENERGY, OFFICE OF OIL AND GAS, OVERVIEW OF U.S. LEGISLATION AND REGULATIONS AFFECTING OFFSHORE NATURAL GAS AND OIL ACTIVITY 4 (2005), *available at* http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/2005/offshore/offshore.pdf.

[7] U.S. Dep't of the Interior, Minerals Mgmt. Serv., *Outer Continental Shelf-Definition*, http://www.mms.gov/aboutmms/ocsdef.htm (last visited Sept. 28, 2006). Three Gulf Coast states have more extensive jurisdictions. The jurisdictions of Florida (on its west coast) and Texas extend nine nautical miles offshore, and Louisiana's jurisdiction extends three imperial miles offshore. *Id.*

[8] *Id.*

[9] *Id.*

[10] *Id.*

[11] *Id.*

[12] U.S. DEP'T OF ENERGY, OFFICE OF OIL AND GAS, *supra* note 6.

[13] 43 U.S.C. §§ 1333-38 (2000); MINERALS MGMT. SERV., FEDERAL OFFSHORE LANDS, http://www.mms.gov/aboutmms/FedOffshoreLands.htm

process.[14] MMS leases mineral rights through scheduled sales at which private parties can purchase leases with options for exploration and extraction.[15] If a lessee begins production within a set period—typically five to ten years—the lease continues until the lessee terminates the operation or MMS determines that further extraction is unwarranted.[16] In either case, the lease reverts back to the federal government, but the lessee must begin "decommissioning" activities within one year after the lease's termination.[17]

III. MMS DECOMMISSIONING REQUIREMENTS

MMS defines "decommissioning" as "(1) ending oil, gas, or sulphur operations and (2) returning the lease or pipeline right-of-way to a condition that meets the requirements of regulations of MMS"[18] In order to understand the decommissioning process, a basic understanding of off-shore rigs is necessary.[19] Rigs are perhaps most commonly thought of in the context of extracting oil.[20] Offshore oil is extracted through holes dug in the ocean floor known as wells.[21] The drill that creates the holes is the "rig." The structure that sits atop the well and extracts the oil is the "platform."[22] The term "rig" is commonly used to refer to what is actually the platform—thus the name "Rigs to

[14] 43 U.S.C. § 1333-38; MINERALS MGMT. SERV., *supra* note 7.
[15] 43 U.S.C. § 1344; U.S. DEP'T OF THE INTERIOR, MINERALS MGMT. SERV., LEASING OIL AND NATURAL GAS RESOURCES, OUTER CONTINENTAL SHELF 9 (2006 **)**
[16] Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Decommissioning Activities, 30 C.F.R. § 250.1700 (2002).
[17] *Id.* §§ 250.1710, 250.1725.
[18] *Id.* § 250.1700(a)
[19] Jean F. Rydstrom, *When is a Vessel in Navigation for Purposes of the Jones Act*, 5 A.L.R. FED. 674 §§ 8, 15 (1970).
[20] *Id.* § 5
[21] *Id.*
[22] *Id.*

Reefs" refers to converting oil *platforms* to reefs.[23] Oil is transported from the platform to land or ships in pipelines.[24]

Thus decommissioning a rig entails ensuring that all of the component parts—which often include a well, a platform, and pipelines—are properly removed and sealed to avoid obstructing and polluting the surrounding environment.[25] Decommissioning a well involves "plugging" or capping it, to prevent underground materials from leaking up through the well and polluting the surrounding environment.[26] In most cases, decommissioning a platform means that the owner must remove the platform from the ocean floor.[27] Decommissioning a pipeline entails either removing it or sealing it off by flushing the pipeline of potential pollutants, filling it with seawater, cutting and plugging each end of the pipeline, and covering or burying both ends.[28] Thus MMS' overall decommissioning requirements are as follows: a lessee must 1) get approval to decommission from the appropriate MMS District Supervisor (for wells) or Regional Supervisor (for platforms, pipelines, and other facilities); 2) permanently plug all wells; 3) remove all platforms and other facilities; 4) decommission all pipelines; and 5) clear the seafloor of all obstructions created by the lessee's operations.[29]

MMS requires the owner to get approval from the appropriate MMS Supervisor by submitting initial applications before decommissioning any facilities or pipelines[30]

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[23] *Id.* § 10.
[24] *Id.*
[25] 30 C.F.R. § 250.1703.
[26] *Id.*
[27] *Id.* § 250.1725.
[28] *Id.* §§ 250.1751–250.1752.
[29] *Id.* § 250.1703.
[30] 30 C.F.R. § 250.1700(c). An initial platform removal application is required only for platforms located in the Pacific and Alaskan Outer Continental Shelf regions. *Id.* § 250.1726.

and a final report after decommissioning.[31] MMS defines "facility" as "any installation other than a pipeline . . . that is permanently or temporarily attached to the seabed on the OCS."[32] Although specific requirements for the initial applications differ depending on the device removed, all of the initial applications call for descriptions of the work to be completed, including vessels and equipment to be used.[33] The applications also require lessees to make plans to protect marine life and the environment during the operations, and include a brief assessment of the environmental impacts of the operations and mitigation measures owners will take to minimize the impacts.[34] The final reports for the plugging of wells must include a description of the methods and materials used,[35] while the reports for platforms and pipelines require a summary of the decommissioning operation and a description of any mitigation measures the owners took.[36]

After plugging a well, removing a platform or decommissioning a pipeline, an owner must verify within 60 days that the site is clear of obstructions.[37] MMS defines "obstructions" as "structures, equipment, or objects that were used in oil, gas, or sulfur operations or marine growth that, if left in place, would hinder other users of the OCS."[38] Obstructions may include wellheads, platforms, pipelines, and other facilities.[39] The method used to verify that the site is free of obstructions varies depending on two variables: the depth of the water and the type of facility involved.[40] For any facility in

[31] *Id.* §§ 250.1712, 250.1726.
[32] *Id.* § 250.1700(c).
[33] 30 C.F.R. §§ 250.1712, 250.1726.
[34] *Id.*
[35] *Id.* § 250.1717.
[36] *Id.* §§ 250.1729, 250.1753
[37] *Id.* § 250.1740.
[38] *Id.* § 250.1701.
[39] 30 C.F.R § 250.1701.
[40] *Id.* § 250.1740.

water depths less than 300 feet, the owner must drag a trawl over the site.[41] For well sites in water depths 300 feet or more, an owner may drag a trawl over the site, scan across the location with sonar equipment, inspect the site using a diver, videotape the site using a camera on a remotely operated vehicle (ROV), or use another method approved by MMS District Supervisor.[42] For a platform or other facility in water depths of 300 feet or more, the regulation limits an owner's options to dragging a trawl, scanning with sonar equipment, or using another method approved by the District Supervisor.[43] As with the decommissioning and removal operations, after clearing a site of obstructions, MMS requires owners to submit a report certifying that the obstruction is cleared and providing details regarding the methods and equipment used in the operation.[44]

The cost to industry of decommissioning varies depending on the particular site and facilities involved.[45] One MMS report estimated decommissioning costs of individual platforms in the Pacific OCS.[46] The least expensive platform cost approximately $10 million to decommission, the most expensive platform cost $129 million, and the average cost of decommissioning a platform was approximately $43 million.[47]

IV. THE RIGS TO REEFS PROGRAM

The Rigs to Reefs (RTR) program enables industry to avoid some of the decommissioning costs by leaving platforms in place and converting them to artificial

[41] *Id.*
[42] *Id.*
[43] *Id.* § 250.1740.
[44] *Id.* § 250.1743.
[45] U.S. DEP'T OF THE INTERIOR, MINERALS MGMT. SERV., OFFSHORE DECOMMISSIONING COSTS, PAC. OCS REGION, EXECUTIVE SUMMARY at i (2004).
[46] *Id.*
[47] *Id.* at ii. This author calculated the average cost.

reefs.[48] A concurrent benefit of RTR is the development and enhancement of fisheries and other habitats for ocean animals.[49] All of the artificial reefs converted under RTR are located in the Gulf of Mexico,[50] and they are particularly beneficial there because the Gulf's natural floor is a flat, sandy plain generally not well suited to habitat development.[51] The platforms provide structures on which marine life can congregate, furnishing habitats which otherwise would not exist in much of the Gulf.[52] For this reason, many commercial and recreational fishermen's groups in the Gulf have joined environmentalists in supporting RTR.[53]

RTR traces its origins to a joint initiative, started in 1980, between MMS and the National Marine Fisheries Service,[54] with the following goals**:** (1) to develop a national policy that recognizes the artificial reef benefits of oil and gas platforms; (2) to prepare an RTR program plan for the Gulf of Mexico; (3) to establish a standard procedure for conversion of obsolete platforms to reefs; (4) to identify research necessary to optimize the use of platforms as reefs; and (5) to identify legal restrictions that may prevent the use of obsolete platforms as artificial reefs.[55] To further these goals, the DOI (MMS' parent agency) joined with the National Ocean Industries Association (NOIA) to form the Recreational Environmental Enhancement for Fishing in the Seas task force.[56]

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[48] MINERALS MGMT. SERV., RIGS-TO-REEFS INFORMATION, http://www.gomr.mms.gov/homepg /regulate /environ/rigs-to-reefs/information.html (last visited October 15, 2006).
[49] MINERALS MGMT. SERV., ARTIFICIAL REEFS: OASES FOR MARINE LIFE IN THE GULF, http://www.gomr.mms.gov/homepg/regulate/environ/rigs-to-reefs/artificial-reefs.html (last visited October 15, 2006).
[50] DAUTERIVE, *supra* note 3, at 1.
[51] MINERALS MGMT. SERV, *supra* note 39.
[52] *Id.*
[53] *Id.*
[54] A division of the U.S. Department of Commerce.
[55] DAUTERIVE, *supra* note 3, at 1.
[56] *Id.*

These efforts encouraged Congress to enact the National Fishing Enhancement Act (NFEA) in 1984.[57] NFEA recognizes the social and economic value in developing artificial reefs and establishes national standards for artificial reef development.[58] The Act also called for the U.S. Department of Commerce (DOC) to create a National Artificial Reef Plan ("the Plan"), and established a reef-permitting system under the U.S. Army Corps of Engineers (USACOE).[59] The National Marine Fisheries Service (NMFS) published the Plan in 1985 and revised it in 2002.[60]

The Plan establishes the general framework of what has become known as RTR.[61] The federal government's role is to provide "technical assistance, guidance, permitting and regulations for the proper use of artificial reefs."[62] The Plan does not call for or establish any single federally coordinated program to perform this role.[63] "Five federal entities have varying degrees of interest in and responsibility for, artificial reefs."[64] DOI, through MMS, is responsible for the leasing of federal lands on the U.S. OCS and regulating the development and extraction of minerals on those lands.[65] The DOC, through NMFS, is the lead agency in the development of the Plan.[66] NFEA gave the Department of Defense (DOD), through USACOE, responsibility for the permitting of artificial reef development.[67] The Department of Transportation (DOT), through the U.S. Coast Guard, has the responsibility to establish safety zones around offshore facilities

[57] *Id.*; 33 U.S.C. §§ 2101–2106 (2000).
[58] 33 U.S.C. §§ 2101–2102.
[59] *Id.* §§ 2103–2104.
[60] REEF PLAN REVISION, *supra* note 3, at 5.
[61] *Id.*
[62] *Id.* at 4.
[63] *Id.*
[64] *Id.* at 4–5.
[65] REEF PLAN REVISION, *supra* note 3, at 5. The U.S. Fish and Wildlife Service (USFWS), also a division of DOI, administers grants which states have used in their artificial reef programs. *Id.* The USFWS also provides technical assistance to entities including states regarding fisheries and other matters. *Id.*
[66] *Id.* at 6.
[67] 33 U.S.C. § 2104; REEF PLAN REVISION, *supra* note 3, at 7.

such as rigs and enforce fishery laws, among other duties.[68] Finally, the Environmental Protection Agency (EPA) has the responsibility for permitting the transportation for dumping of certain materials in ocean waters, and the permitting criteria may apply to certain artificial reef materials placed on the ocean floor. [69]

The Plan leaves much of the responsibility for developing and planning artificial reef sites to the states.[70] The 2002 revisions to the Plan emphasized the importance of states "assum[ing] the lead in acquiring permits, maintaining liability, financing, constructing, researching, and monitoring marine artificial reefs through state-supported programs."[71] Essentially, the states have been, and will continue to be, responsible for implementing the Plan in accordance with limited federal government guidance and regulation.[72]

The Plan requires the state to act as holder of the USACOE permit required to develop an artificial reef, at least by default.[73]

> "Because of the potential long-term effects of artificial reef development . . . . eligibility to hold a permit to develop an artificial reef should be restricted to the appropriate state fishery management agency . . . .[i]f a state wishes to extend its permit authority to other entities, it should do so in writing to the appropriate Corps [USACOE] office."[74]

The Plan emphasizes that "the states' natural resource agencies hold the public trust in managing resources associated with artificial reefs and are the principal entities that can demonstrate long-term accountability for liability required in artificial reef permits."[75]

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[68] REEF PLAN REVISION, *supra* note 3, at 8.
[69] *Id.*
[70] *Id.* at 9.
[71] *Id.* Liability is discussed in more detail *infra* p. 12.
[72] *Id*.
[73] *Id.* at 10.
[74] REEF PLAN REVISION, *supra* note 3, at 10.
[75] *Id.*

Yet, as mentioned above, the Plan appears to allow states the option of delegating permit authority to other entities, including private entities, if USACOE consents.[76]

The Plan divides the development of an artificial reef into five phases and describes guidelines for states to use in implementing each phase: 1) siting; 2) artificial reef materials and design; 3) construction; 4) management; and 5) liability.[77] The Plan gives the states considerable leeway and responsibility in regulating each phase.[78] One section encourages states to adopt their own artificial reef plans containing guidelines and regulatory provisions for their jurisdictions.[79] However, NFEA requires the USACOE to ensure through its permitting requirements that the implementation of each phase is consistent with NFEA's expressed standards.[80]

V. IS ADDITIONAL LEGISLATION NEEDED TO AUTHORIZE RIGS TO RENEWABLES AT DECOMISSIONED SITES?

No. The Energy Policy Act of 2005 provides sufficient authority for programs like Rigs-to-Renewables on decommissioned sites.[81] However, Rigs to Renewable would still need to comply with existing permitting requirements, which would vary depending on the particular type of renewable energy involved.[82]

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[76] *Id.* at 10. The Plan does not have a definitions section and does not define the term "entities." However, in a section discussing the role of private orgnaizations, the Plan stresses that private organizations always should coordinate their activities with the applicable state entities "to ensure such reefs are used properly and in compliance with all pertinent regulations and management goals." *Id.* at 12.
[77] *Id.* at ii-iii. This part of the Plan also includes a section outlining the federal regulatory requirements and state regulatory authority. *Id.* at ii.
[78] *Id.* at 9.
[79] *Id.* at 30. USACOE permitting requirements and other federal regulations apply to state waters. Defintion of the Navigable Waters of the US, 33 C.F.R. § 329.12 (2000).
[80] 33 U.S.C. § 2102 (2000).
[81] Energy Policy Act of 2005, *supra* note 2.
[82] *Id.*; MINERALS MGMT. SERV., OCS RENEWABLE ENERGY AND ALTERNATE USE PROGRAM, http://www.mms.gov/offshore/RenewableEnergy/OCSAlternativeEnergyAndRelatedUses.pdf

Section 388 of the Energy Policy Act of 2005 grants MMS new responsibilities over federal offshore renewable energy projects and uses.[83] In addition to granting leases for mineral and gas exploration, MMS now has the authority to grant leases, easements, or right-of ways for renewable energy-related uses on federal OCS lands.[84] In addition, MMS now acts as the "lead agency for coordinating the permit process" with other federal agencies, and is responsible for monitoring and regulating those facilities used for renewable energy production and transmission.[85]

The Energy Policy Act did not specify the exact nature of MMS' role as the "lead agency for coordinating the permit process," leaving MMS to define that role for itself.[86] However, the Act states that MMS' authority does not encroach upon the existing authority of any other agency with regard to the permitting of renewable energy projects.[87] Thus, for example, a project using wind turbines would require permits from USACOE,[88] and a project using equipment to harness kinetic hydropower (which in the offshore setting means wave power) would require permits from the Federal Energy Regulatory Commission (FERC).[89] MMS has stated that one of its goals as "lead agency" will be "simplifying the permitting process," but has not yet promulgated any regulations or set any guidelines to that effect.[90] In late 2005, MMS issued an Advanced Notice of Proposed Rulemaking seeking public comments on several issues related to the implementation of its new responsibilities under the Act, including the permitting

[83] Energy Policy Act of 2005, *supra* note 2.
[84] *Id.*
[85] *Id.*
[86] *See id.*
[87] *Id.*; MINERALS MGMT. SERV., *supra* note 82.
[88] Outer Continental Shelf Lands Act of 1953, § 4(f), 43 USC §§ 1331-1356 (2000).
[89] Federal Power Act pt. 1, 16 U.S.C. §796 (2000).
[90] MINERALS MGMT. SERV., CHERI HUNTER, IMPLEMENTING THE ENERGY POLICY ACT OF 2005, POWERPOINT PRESENTATION, http://www.mms.gov/2005EnergyPolicyAct.htm#ImplementingInMMS.

process.[91] The comment period has closed, but MMS has not yet issued any additional notices or regulations regarding permitting.[92]

VI. LIABILITY

A. *Liability in Rigs to Reefs*

NFEA deals with liability in four paragraphs.[93] Paragraph one states that a permittee bears no liability for damages caused by activities required to be undertaken under any terms and conditions of the permit, as long as the permittee is in compliance with the terms and conditions.[94] However, NFEA's next paragraph, in section 2104(c)(2), includes a provision that a permittee and the permittee's insurer "shall be liable, to the extent determined under applicable law, for damages to which [the previous paragraph] does not apply."[95] In paragraph three, NFEA requires USACOE to ensure that a permittee demonstrate the financial ability to assume liability for all damages that may arise.[96] Paragraph four relieves from liability "any person who has transferred title to artificial reef construction materials to a [permittee]" as long as such materials "meet applicable requirements of the plan . . . and are not otherwise defective at the time title is transferred."[97]

The Plan elaborates further on NFEA's treatment of liability.[98] As discussed above, the Plan makes clear that unless a state receives approval from USACOE, the state

[91] Alternate-Energy Uses on the Outer Continental Shelf, 70 Fed. Reg. 77,345 (Dec. 30, 2005) (to be codified at 30 C.F.R. pt. 285).
[92] *Id.*
[93] 33 U.S.C. § 2104(c)(1).
[94] *Id*.
[95] *Id.* § 2104(c)(2).
[96] *Id.* § 2104(c)(3).
[97] *Id.* § 2104(c)(4).
[98] REEF PLAN REVISION, *supra* note 3, at 37–39.

will act as the permittee and face the accompanying liability.[99] The Plan deals with liability at three stages of the artificial reef process: planning and permitting, construction, and monitoring.[100]

The only potentially liable party in the planning and permitting stage is the United States, and NFEA excludes the United States from any liability.[101] Within the construction stage, NFEA does not address the actual transportation of materials to the site, so liability for transportation accidents would be the same as in any other maritime context.[102] Pursuant to NFEA section 2101(c)(2), any donor of materials should be sure to verify that materials meet plan guidelines and to document the transfer of title.[103] The actual placement of the materials usually involves private parties who are either volunteers or contractors of the permittee.[104] The permittee would be liable for any damages resulting from these parties' failure to follow the specifications of the permit regarding the location and procedures for placement and construction.[105] However, as long as the permittee and any other parties involved in the construction adhere strictly to the requirements of the permit, the permittee will not be subject to liability for any injuries resulting from the "required activities" of construction.[106] If the USCOE permit contains requirements for monitoring, the same adherence to those requirements will immunize the permittee from liability.[107]

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[99] *Id.* at 8.
[100] *Id.* at 38–39
[101] 33 U.S.C. § 2104(d). The United States might be sued for negligent planning or permitting under the Suits in Admiralty Act (46 U.S.C. Appx §§741–752). REEF PLAN REVISION, *supra* note 3, at 38.
[102] REEF PLAN REVISION, *supra* note 3, at 38. Thus transportation accidents may require reference to maritime law and traditional tort concepts of liability. *Id.*
[103] *Id.* at 39.
[104] *Id.*
[105] *Id.*
[106] 33 U.S.C. § 2104(c)(1); REEF PLAN REVISION, *supra* note 3, at 39.
[107] REEF PLAN REVISION, *supra* note 3, at 39.

B. *Liability in the proposed Rigs to Renewables Program*

Although the details of the proposed Rigs to Renewables program have not been specified, the basic concept is analogous to Rigs to Reefs. Obsolete offshore mineral platforms would be decommissioned and equipped with materials suitable for the production and transmission of renewable energy. While NFEA specifications clearly refer to artificial reefs, any new statute or regulations referring to renewable energy could utilize the same strictures for liability.[108] The state fisheries services would be the default permit-holders, and would be required to accept liability for the rig after the rig has been decommissioned according to MMS requirements.[109] The licensee or permittee ("the permittee") would be immunized from liability provided that the permittee adhered strictly to the permit requirements regarding construction and monitoring.[110] The permittee would be liable if the permittee or private parties involved in the construction failed to follow the permit's specifications.[111] Any accidents or injuries incurred in the transportation of materials to the site would fall under the domain of maritime law.[112]

NFEA's treatment of liability allows for some ambiguities, but the Plan clarifies and reduces those ambiguities to a level where liability is manageable.[113] Rigs to Renewables may engender liability concerns distinct from Rigs to Reefs because of the different methods and materials used in converting a rig into a renewable energy station instead of an artificial reef.[114] However, NFEA and the Plan present a framework for

[108] 33 U.S.C. § 2104(c).
[109] REEF PLAN REVISION, *supra* note 3, at 37–39.
[110] REEF PLAN REVISION, *supra* note 3, at 38–39.
[111] *Id.*
[112] *Id.* at 38.
[113] *See* 33 U.S.C. §§ 2104(c); REEF PLAN REVISION, *supra* note 3, at 37–39.
[114] *See* REEF PLAN REVISION, *supra* note 3, at 37–39.

addressing liability concerns that should be adaptable to the Rigs to Renewables context.[115]

VII. CONCLUSION

The Rigs to Renewables Program largely would fit into the existing statutory and regulatory framework provided by the Energy Policy Act and RTR.[116] Rigs to Renewables would have to comply with existing permitting requirements for renewable energy, unless and until MMS simplifies the permitting process.[117] While Rigs to Renewables may face its own unique issues, the program could address issues of federal agency jurisdiction, regulatory compliance, and liability by analogizing to Rigs to Reefs.[118]

[115] *See* 33 U.S.C. §§ 2101–2106; REEF PLAN REVISION, *supra* note 3, at 37–39.
[116] *See* 33 U.S.C. §§ 2101–2106; Energy Policy Act of 2005 §388; REEF PLAN REVISION, *supra* note 3.
[117] Energy Policy Act of 2005, *supra* note 2; MINERALS MGMT. SERV., *supra* note 82.
[118] *See* Energy Policy Act of 2005, *supra* note 2; REEF PLAN REVISION, *supra* note 3, at 37-39.