



**THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)  
AND A REVIEW OF MMS NEPA DOCUMENTS**

PREPARED FOR THE NATIONAL COMMISSION ON BP DEEPWATER  
HORIZON OIL SPILL AND OFFSHORE DRILLING

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## ACKNOWLEDGEMENTS

This report was written by Margaret R. Caldwell, Executive Director of the Center for Ocean Solutions, Senior Lecturer and Director, Environmental and Natural Resources Law and Policy Program, Stanford Law School, Deborah A. Sivas, Luke W. Cole Professor of Environmental Law and Director of the Stanford Environmental Law Clinic, and Kimiko Narita (Stanford J.D./M.S. '11), research assistant at the Center for Ocean Solutions. All findings, opinions, statements, and recommendations contained in this report are solely those of its authors. The report has been submitted to the staff of the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, but the report is not the work product of the Commission or its staff, and should not be construed in any respect as the official or unofficial findings, opinions, statements, or recommendations of the Commission or its staff.

## SCOPE

This white paper is intended to address the following questions:

- 1) Introduction that provides a general overview of NEPA (both the law and CEQ implementing regulations)
- 2) Discussion of Environmental Impact Statements and Environmental Assessments (as defined in NEPA and implementing regulations, and refined by case law). This should include the purpose of the documents, as well as differences between them and their use. Discussion of the appropriate use of “Findings of No Significant Impact” in Environmental Assessments. How do past and current MMS/BOEM practices regarding the use of EIS/EAs differ from the original intent of the law (and why)?
- 3) Review of case law and CEQ/DOI regulations regarding the use of categorical exclusions. Description of how MMS applied categorical exclusions in the Gulf of Mexico (how did this differ from other parts of the country?). Discussion of whether the MMS use of categorical exclusions was appropriate in deepwater sites (based on NEPA, regulations, and case law).
- 4) Review of case law and CEQ/DOI regulations regarding the treatment of “worse case scenarios” within NEPA documents. Discussion of how MMS handled worse case scenarios in their NEPA documents.
- 5) Recommendations based on analysis in items 2-4.

In preparation for writing this white paper we have conducted a comprehensive review of available documents online through web searches, Westlaw and government websites. Relevant government documents pre-dating 1986, such as Environmental Impact Statements, are not available online. More recent documents, such as MMS’s Categorical Exclusion Reviews (CERs) are generally not available to the public regardless of their date.

## 1. INTRODUCTION TO THE NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq., serves as our nation's "basic national charter for protection of the environment."<sup>1</sup> It "declares a broad national commitment to protecting and promoting environmental quality."<sup>2</sup> To effectuate this national policy, NEPA requires that federal agencies prepare a detailed environmental impact statement for every "major federal action"<sup>3</sup> significantly affecting the quality of the human environment.<sup>4</sup> This requirement serves a dual purpose: It "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decision making process and the implementation of that decision."<sup>5</sup>

Envisioned as a cornerstone for the federal agency decision making process, NEPA effectively functions as an environmental filter for federal agency action. Congress adopted the statute to redress a system-wide failure by federal agencies to adequately identify and consider the environmental consequences of their actions before committing to those actions.<sup>6</sup> To satisfy congressional intent, environmental information must be disseminated "early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made."<sup>7</sup>

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<sup>1</sup> Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1185 (9th Cir. 2008) (quoting 40 C.F.R. § 1500.1(a)).

<sup>2</sup> Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348-49 (1989).

<sup>3</sup> "Major Federal action includes actions with effects that may be major and which are potentially subject to Federal control and responsibility." 40 C.F.R. § 1508.18.

<sup>4</sup> 42 U.S.C. § 4332(C).

<sup>5</sup> Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989).

<sup>6</sup> North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533, 1539-40 (11<sup>th</sup> Cir. 1990) ("Prior to the passage of [NEPA], environmental considerations were systematically underrepresented in the federal agency decision making process. Consistent with traditional notions of natural resource allocation, the benefits of development were overstressed and less environmentally damaging alternatives for meeting program objectives were often given limited consideration. NEPA declares a broad national commitment to protecting and promoting environmental quality. This commitment is implemented by focusing government and public attention on the environmental effects of proposed agency action; The Act ensures that important environmental consequences will not be 'overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.' In short, NEPA requires that the evaluation of a project's environmental consequences take place early in the project's planning process.").

<sup>7</sup> 40 C.F.R. § 1502.5; Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 371 (1989).

Fundamentally, NEPA:

- (1) establishes a national environmental policy which requires federal agencies to “use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony”;<sup>8</sup>
- (2) requires federal agencies to consider the environmental consequences (direct, indirect, and cumulative) of major federal actions (but does not prescribe any particular decisional outcome);<sup>9</sup>
- (3) requires public notice and opportunity for public participation in the NEPA process;<sup>10</sup> and
- (4) establishes the Council on Environmental Quality (CEQ) within the Office of the President<sup>11</sup> in order to:
  - (a) gather information on the conditions and trends in environmental quality;<sup>12</sup>
  - (b) evaluate federal programs in light of the goals of the Act;<sup>13</sup>
  - (c) develop and promote national policies to improve environmental quality, and conduct studies, surveys, research, and analyses on ecosystems and environmental quality;<sup>14</sup> and
  - (d) issue implementing regulations that federal agencies are expected to comply with.<sup>15</sup>

Ultimately, Congress vested the President, the federal agencies, and the judiciary with shared responsibility for ensuring that NEPA’s powerful vision is realized.<sup>16</sup> Every federal agency must comply with NEPA unless existing law expressly prohibits or makes compliance impossible.<sup>17</sup>

In 1978, CEQ promulgated implementing regulations that define “agency action” and the process for determining whether an action or program significantly affects the quality of the human

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<sup>8</sup> 42 U.S.C. § 4331(a).

<sup>9</sup> § 4332(C).

<sup>10</sup> § 4332(C)(v); *see also* 5 U.S.C. § 552.

<sup>11</sup> § 4342.

<sup>12</sup> § 4344(1).

<sup>13</sup> § 4344(3).

<sup>14</sup> § 4344(4).

<sup>15</sup> Exec. Order No. 11991, 42 Fed. Reg. 26,967 (May 24, 1977); *see also* *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979) (“CEQ’s interpretation of NEPA is entitled to substantial deference.”).

<sup>16</sup> 40 C.F.R. § 1500.1.

<sup>17</sup> § 1500.6.

environment.<sup>18</sup> CEQ has amended these regulations only once, in 1986 (to change how agencies should comply with NEPA when information is incomplete or unavailable).<sup>19</sup> Under the CEQ regulations, each federal agency must publish its own procedures to comply with the CEQ regulations.<sup>20</sup> Most federal agencies have published their own implementing regulations and guidance to help customize the NEPA process to their specific mission and activities. For example, the Department of the Interior (DOI) and the Mineral Management Service (MMS) specifically published their own NEPA guidance in the DOI Departmental Manual.<sup>21</sup>

**2. DISCUSSION OF ENVIRONMENTAL IMPACT STATEMENTS AND ENVIRONMENTAL ASSESSMENTS (AS DEFINED IN NEPA AND IMPLEMENTING REGULATIONS, AND REFINED BY CASE LAW). THIS SHOULD INCLUDE THE PURPOSE OF THE DOCUMENTS, AS WELL AS DIFFERENCES BETWEEN THEM AND THEIR USE. DISCUSSION OF THE APPROPRIATE USE OF “FINDINGS OF NO SIGNIFICANT IMPACT” IN ENVIRONMENTAL ASSESSMENTS. HOW DO PAST AND CURRENT MMS/BOEM PRACTICES REGARDING THE USE OF EISs/EASs DIFFER FROM THE ORIGINAL INTENT OF THE LAW (AND WHY)?**

To simplify, the NEPA process can be segmented into three levels of analysis:

- (1) Categorical Exclusion determination;
- (2) Preparation of an Environmental Assessment and Finding of No Significant Impact (FONSI); and
- (3) Preparation of an Environmental Impact Statement (EIS).

A proposal for “major federal action”<sup>22</sup> triggers preparation of an EA or an EIS unless the action can be categorically excluded. These procedures require all federal agencies to take a “hard look” at the consequences of proposed actions by preparing a detailed statement on the potential environmental impacts of every major federal action that may significantly affect the quality of the human environment.<sup>23</sup>

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<sup>18</sup> 40 C.F.R. Parts 1500-1508 (1978). Agency actions include “new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals.” 40 C.F.R. § 1508.18 (1978).

<sup>19</sup> § 1502.22.

<sup>20</sup> § 1507.

<sup>21</sup> DEPARTMENT OF INTERIOR (DOI), DEPARTMENTAL MANUAL, *available at* [http://elips.doi.gov/app\\_dm/dm.cfm](http://elips.doi.gov/app_dm/dm.cfm); DOI, 516 DM15, DEPARTMENTAL MANUAL – MANAGING THE NEPA PROCESS – MINERALS MANAGEMENT SERVICE 15.4(A)(1) (2004), *available at* [http://elips.doi.gov/app\\_dm/act\\_getfiles.cfm?relnum=3625](http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3625) [hereinafter DOI DEPARTMENTAL MANUAL-MMS]. While other agencies and bureaus within DOI have developed detailed user-friendly handbooks and manuals that methodically describe exactly how agency personnel are to comply with NEPA (e.g., BLM’s NEPA Handbook H-1790-1). MMS/BOEM has published no comparable guidance.

<sup>22</sup> “Major Federal action includes actions with effects that may be major and which are potentially subject to Federal control and responsibility.” 40 C.F.R. § 1508.18.

<sup>23</sup> 42 U.S.C. § 4332(C); *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 851 (D.C. Cir. 1970).

All major federal actions that will significantly affect the quality of the human environment require the preparation of an environmental impact statement (“EIS”).<sup>24</sup> If it is unclear to the agency whether a particular action will have a significant environmental impact, the agency must prepare a less detailed environmental assessment. The environmental assessment will determine whether an EIS is necessary or, conversely, whether a finding of no significant impact is appropriate.<sup>25</sup> If the environmental assessment results in a finding of no significant impact (FONSI), the agency is not required to prepare a full EIS. An agency cannot avoid preparing an EIS, however, simply by asserting that an action does not have a significant effect on the environment.<sup>26</sup> The agency must prepare an environmental assessment to make such a determination.

An environmental assessment must consider the reasonably foreseeable environmental impacts of the proposed agency action, including foreseeable direct and indirect effects, as well as the cumulative impacts of past, present, and reasonably foreseeable future actions.<sup>27</sup> An environmental assessment must also consider reasonable alternatives to the proposed action and the foreseeable environmental impacts of those alternatives.<sup>28</sup> In addition, the agency must provide a meaningful opportunity for public consideration and input on the assessment.<sup>29</sup> These provisions and procedures serve an important purpose: they ensure that an agency will always “have available, and will carefully consider, detailed information concerning significant environmental impacts” of its actions.<sup>30</sup> Thus, NEPA’s requirements for EAs significantly reduce the risk that an agency will overlook certain environmental consequences of its actions due to deficiencies in its environmental assessment.

Categorical Exclusions (CEs) are reserved for “actions that do not have a significant effect on the quality of the human environment (individually or cumulatively).”<sup>31</sup> Use of either a Categorical Exclusion or an EA does not excuse an agency from its independent responsibilities established by other federal laws, such as consultation obligations under the Endangered Species Act and the Marine Mammal Protection Act.<sup>32</sup> Categorical Exclusions are pivotal in the NEPA process because they act to completely shut down NEPA’s information provisioning and disclosure as

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<sup>24</sup> § 4332(C).

<sup>25</sup> 40 C.F.R. § 1501.4(b) (1978) (“In determining whether to prepare an environmental impact statement the Federal agency shall . . . prepare an environmental assessment.”); § 1508.9.

<sup>26</sup> *Alaska Center for the Env’t v. U.S. Forest Serv.*, 189 F.3d 851, 859 (9th Cir. 1999).

<sup>27</sup> 40 C.F.R. §§ 1508.7, 1508.8.

<sup>28</sup> § 1508.9(b).

<sup>29</sup> § 1506.6.

<sup>30</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

<sup>31</sup> 40 CFR §1508.4.

<sup>32</sup> § 46.215(b) & (d).

well as public participation features for a given agency action once the Categorical Exclusion is applied.

The past and current MMS/BOEM practices regarding the use of EISs/EAs differ from the original intent of NEPA through (1) an over-reliance on CEs, particularly for outer continental shelf (OCS) activities in the Gulf of Mexico, and (2) improper use of tiering and overly broad geographic scope of each environmental review. Accordingly, in the next section, we scrutinize BOEM's own guidance on Categorical Exclusions, CEQ's apparent leniency in allowing expansive use of Categorical Exclusions by MMS, and MMS's application of its own Categorical Exclusion guidance in the case of the Macondo Well (Lease Sale 206). Here, we focus on tiering.

Tiering is "the coverage of general matters in broader environmental impact statements . . . with subsequent narrower statements or environmental analyses . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared."<sup>33</sup> The purpose of tiering is to encourage more thorough reviews at each subsequent stage and avoid duplication of general information covered in previous environmental reviews. However, MMS's use of tiering has undermined this original purpose and has created a system where deeper environmental analysis at more geographically-targeted and advanced planning stages does not exist.

This is apparent in the environmental reviews conducted for the Macondo Well. For instance, bluefin tuna are found in the Gulf of Mexico region covered by Lease Sale 206. Bluefin are a commercially vital resource and are biologically significant as top predators, so it would seem reasonable that a meaningful environmental review of the impacts of OCS activities on this species would be warranted. The Programmatic EIS (PEIS), which covers not only the Gulf of Mexico but also Alaska and the Atlantic, includes one sentence on bluefin tuna.<sup>34</sup> The Multi-Sale EIS, which tiers from the PEIS, contains a few sentences on bluefin tuna, but nothing significant on potential impacts of OCS activities.<sup>35</sup> The Lease Sale 206 EA never mentions bluefin. If tiering were done appropriately, the analysis would get more detailed and specific as the environmental reviews honed in on the exact location of OCS activities. To see a breakdown of how MMS covers bluefin tuna in the environmental reviews, please see Appendix A.

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<sup>33</sup> § 1508.28.

<sup>34</sup> MMS, MMS 2007-003, OUTER CONTINENTAL SHELF OIL & GAS LEASING: 2007-2012 FINAL ENVIRONMENTAL IMPACT STATEMENT: VOL. III AFFECTED ENVIRONMENT III-35 (2007), *available at* <http://www.boemre.gov/5-year/2007-2012FEIS/Chapter3AffectedEnvironment.pdf> [hereinafter PROGRAMMATIC EIS] ("Many of these species such as bluefin tuna and swordfish spawn in the eastern Gulf of Mexico in relation to the Loop Current boundary (MMS, 1999) (Fig. III-4). All of the epipelagic species are migratory, but specific patterns are not well understood. Many of the oceanic species associate with flotsam, which provides forage areas and/or nursery refuges.")

<sup>35</sup> MMS, MMS2007-018, Gulf of Mexico OCS Oil and Gas Lease Sales: 2007-2012 Final Environmental Impact Statement, Vol. I (2007) 3-68, 3-74, 3-78 *available at* <http://www.gomr.mms.gov/PDFs/2007/2007-018-Vol1.pdf> [hereinafter MULTI-SALE EIS]. See Appendix A for full-length sentences.

Another example of questionable tiering is the analysis of oil spill impacts on Gulf sturgeon, a species listed as threatened under the Endangered Species Act.<sup>36</sup> The PEIS includes a small section on this species, and the Multi-Sale EIS contains a fairly comprehensive review of potential impacts (notwithstanding the fundamental error the Multi-Sale EIS makes in limiting the oil spill analysis to a spill of no more than 10,000 barrels).<sup>37</sup> The Lease Sale EA “tiers” from the Multi-Sale EIS and provides no tailoring of the information found in the Multi-Sale EIS to the specific area of Lease Sale 206. The only additional information in the Lease Sale 206 EA is reference to specific locations where Gulf sturgeon are found (presumably in the Lease Sale 206 area),<sup>38</sup> but no analysis of the significance (or lack thereof) of those locations is mentioned. To see a breakdown of how MMS covers Gulf sturgeon in the environmental reviews, please see Appendix B.

### **3. REVIEW OF CASE LAW AND CEQ/DOI REGULATIONS REGARDING THE USE OF CATEGORICAL EXCLUSIONS. DESCRIPTION OF HOW MMS APPLIED CATEGORICAL EXCLUSIONS IN THE GULF OF MEXICO (HOW DID THIS DIFFER FROM OTHER PARTS OF THE COUNTRY?). DISCUSSION OF WHETHER THE MMS USE OF CATEGORICAL EXCLUSIONS WAS APPROPRIATE IN DEEPWATER SITES (BASED ON NEPA, REGULATIONS, AND CASE LAW).**

The CEQ and DOI regulations establish a framework for use of categorical exclusions. The CEQ regulations define “categorical exclusion” as:

a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations (§ 1507.3) and for which, therefore, neither an environmental assessment nor an environmental impact statement is required. . . . Any procedures under this section shall provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect.<sup>39</sup>

Originally, the purpose of using categorical exclusions was to reduce excessive paperwork and delay for actions “which do not individually or cumulatively have a significant effect on the

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<sup>36</sup> 56 Fed. Reg. 49653 (Sept. 30, 1991).

<sup>37</sup> *Id.* at 4-246 – 247.

<sup>38</sup> MMS, MMS 2007-059, PROPOSED GULF OF MEXICO OCS OIL AND GAS LEASE SALE 206, CENTRAL PLANNING AREA, ENVIRONMENTAL ASSESSMENT 46 (2007), *available at* <http://www.gomr.mms.gov/PDFs/2007/2007-059.pdf> (“In general, the researchers noted that the sturgeon are normally found approximately 0.5 mi (0.8 km) from shore between the shoreline and the barrier islands with the bulk of the fish located in the CPA between Petit Bois, Dauphin, and Chandeleur Islands and from Perdido to Panama City as far as Fort Walton Beach.”).

<sup>39</sup> 40 C.F.R. § 1508.4.

human environment.”<sup>40</sup> As discussed below, MMS’s use of categorical exclusions extended far beyond this original purpose.

CEQ regulations outline how to comply with NEPA and require Federal agencies to adopt procedures to implement NEPA, including the use of categorical exclusions (CEs).<sup>41</sup> CEQ also encourages “major subunits” of departments (such as bureaus) to adopt their own NEPA implementing procedures.<sup>42</sup> Notably, CEQ “does not review every application of a CE, every agency project, or the NEPA documents prepared for every agency decision. Rather, CEQ reviews agencies’ NEPA implementing regulations and procedures, as well as agencies’ overall program implementation.”<sup>43</sup>

The Department of the Interior NEPA procedures were promulgated as regulations and published in the *Federal Register* on October 15, 2008.<sup>44</sup> These regulations identify department-wide circumstances when categorical exclusions are used as well as “extraordinary circumstances” when a categorical exclusion is not allowed.<sup>45</sup> The DOI departmental CEs include administrative actions such as “[r]outine financial transactions including such things as salaries” and “[a]ctivities which are educational, informational, advisory, or consultative.”<sup>46</sup> The DOI regulations also make clear that individual bureaus can publish their own set of categorical exclusions.<sup>47</sup>

#### **CATEGORICAL EXCLUSION CASE LAW**

Courts review an agency’s decision to use a categorical exclusion—as opposed to creating an EIS or EA—under the permissive arbitrary and capricious standard.<sup>48</sup> Generally, “the agency’s interpretation of the scope of one of its own CE’s is given controlling weight unless plainly

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<sup>40</sup> §§ 1500.4(p) & 1500.5(k); see also *Fund for Animals v. Babbitt*, 89 F.3d 128, 130 (2d Cir. 1996) (“The CEQ has authorized the use of categorical exclusions to promote efficiency in the NEPA review process.”).

<sup>41</sup> § 1507.3.

<sup>42</sup> § 1507.3.

<sup>43</sup> CEQ, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE’S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 10 (2010), available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100816-ceq-mms-ocs-nepa.pdf> [hereinafter CEQ MMS REPORT].

<sup>44</sup> 73 Fed. Reg. 61,292 (Oct. 15, 2008).

<sup>45</sup> 43 C.F.R. § 46.205, § 46.210.

<sup>46</sup> § 46.210.

<sup>47</sup> § 46.205(a).

<sup>48</sup> *Nat’l Trust for Historic Pres. v. Dole*, 828 F.2d 776, 781 (D.C. Cir. 1987); *Back Country Horsemen of Am. v. Johanns*, 424 F.Supp.2d 89, 98 (D. D.C. 2006); *U.S. v. Commonwealth of Mass.*, No. 05-10112-DPW, 2010 WL 1345018 (D. Mass. Mar. 31, 2010); *Reed v. Salazar*, No. 08-2117 (CKK), 09-640(CKK), 2010 WL 3853218 (D. D.C. Sept. 28, 2010).

erroneous or inconsistent with the terms used in the regulation.”<sup>49</sup> The question of whether MMS’s handbook authorizing categorical exclusions for exploratory wells and drilling operations is arbitrary, capricious, and contrary to law is currently pending before a district court in Alabama.<sup>50</sup>

Much of the case law on categorical exclusions focuses on whether an action qualifies as an exception to an established categorical exclusion.<sup>51</sup> In *California v. Norton*, for instance, the issue was whether MMS’s use of a categorical exclusion—when granting suspensions of certain oil and gas OCS leases off California without providing explanatory findings to support the categorical exclusion—complied with NEPA.<sup>52</sup> The court held that some explanation was required to avoid post-hoc rationalizations. The Court stated that “[w]here there is substantial evidence in the record that exceptions to the categorical exclusion may apply, the agency must at the very least explain why the action does not fall within one of the exceptions.”<sup>53</sup> A categorical exclusion review (CER) is the process used by MMS to determine whether an activity that is categorically excluded meets any MMS’s extraordinary circumstances criteria.<sup>54</sup>

### **CATEGORICAL EXCLUSIONS AND MMS: A BRIEF HISTORY**

The list of MMS’s bureau-specific categorical exclusions is found in Part 516, Chapter 15 of the DOI Departmental Manual.<sup>55</sup> Section 15.4(C) of Part 516 the DOI Departmental Manual addresses “Permit and Regulatory Functions” that receive CEs. Most of the CEs under this section apply to all regions in MMS’s jurisdiction. For instance, the “[a]pproval of an Application for Permit to Drill (APD) an offshore oil and gas exploration or development well, when said well and appropriate mitigation measures are described in an approved exploration plan, development plan, production plan, or Development Operations Coordination Document” applies to all regions.<sup>56</sup> However, there is one CE in this Section of the Manual specifically tailored to the central and western Gulf of Mexico – CE 15.4(C)(10):

Approval of an offshore lease or unit exploration development/production plan or a Development Operation Coordination Document in the central or western Gulf of

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<sup>49</sup> *Back Country Horsemen of Am. v. Johanns*, 424 F.Supp.2d 89, 99 (D. D.C. 2006).

<sup>50</sup> *Defenders of Wildlife v. Minerals Management Service*, No. 10-0254-WS-C, 2010 WL 3169337 at \*1 (S.D. Ala. Aug. 09, 2010).

<sup>51</sup> See *Jones v. Gordon*, 792 F.2d 821 (9th Cir. 1986); *California v. Norton*, 311 F.3d 1162 (9th Cir. 2002); *Reed*, 2010 WL 3853218.

<sup>52</sup> *Norton*, 311 F.3d at 1170.

<sup>53</sup> *Id.* at 1177.

<sup>54</sup> BOEM, National Environmental Policy (NEPA) – Categorical Exclusion Reviews, <http://www.boemre.gov/eppd/compliance/nepa/policy/ce/index.htm> (last visited Oct. 17, 2010).

<sup>55</sup> DOI DEPARTMENTAL MANUAL-MMS, *supra* note **Error! Bookmark not defined.**. On October 8, 2010, BOEMRE announced its “intent to conduct a broad review of its categorical exclusions (CEs) for Outer Continental Shelf (OCS) decisions.” 75 Fed. Reg. 62,418 (Oct. 8, 2010).

<sup>56</sup> DOI DEPARTMENTAL MANUAL-MMS, *supra* note **Error! Bookmark not defined.**, at (C)(12).

Mexico (30 CFR 250.2) except those proposing facilities: (1) In areas of high seismic risk or seismicity, relatively untested deepwater, or remote areas; or (2) within the boundary of a proposed or established marine sanctuary, and/or within or near the boundary of a proposed or established wildlife refuge or areas of high biological sensitivity; or (3) in areas of hazardous natural bottom conditions; or (4) utilizing new or unusual technology.<sup>57</sup>

The first version of this Gulf-specific CE was created by the U.S. Geological Survey<sup>58</sup> for its departmental manual in 1981 after a round of notice and comment from the public.<sup>59</sup> The 1981 version of the CE states:

(3) (b) Approval of an OCS exploration or development/production plan in the western Gulf of Mexico (30 CFR 250.2) which does not require an environmental report from an operator pursuant to item 3 of NTL 80-6.<sup>60</sup>

Interestingly, this 1981 CE was narrower in scope and only exempted the western Gulf of Mexico, not the central Gulf of Mexico. In 1983, during the Reagan administration, CEQ published a guidance memorandum to agencies on how to implement NEPA.<sup>61</sup> This memorandum was not a regulation but was meant to inform agency decision making. The section on categorical exclusions encouraged agencies to define CEs broadly and discouraged agencies from documenting their use of CEs:

The Council has noted some agencies have developed lists of specific activities which qualify as categorical exclusions. The Council believes that if this approach is applied narrowly it will not provide the agency with sufficient flexibility to

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<sup>57</sup> *Id.* at (C)(10). The phrase “areas of high biological sensitivity” only appears in the context of CEs and is never clearly defined in OCSLA or its implementing regulations.

<sup>58</sup> U.S.G.S. was the agency in charge of regulating offshore activities before the creation of MMS.

<sup>59</sup> 46 Fed. Reg. 7,485 (Jan. 23, 1981). The draft version of this CE was not significantly different: “(36) Approval of OCS exploration plans in the Western Gulf of Mexico (30 CFR 250.2). (37) Approval of OCS development/production plans in the Western Gulf of Mexico (30 CFR 250.2).” Only two oil companies and the North Slope Borough in Alaska commented on U.S.G.S.’s call for comments on its NEPA procedures. 45 Fed. Reg. 75,336 (Nov. 14, 1980).

<sup>60</sup> 46 Fed. Reg. at 7,485. Item 3 of Notice to Lessees (NTL) 80-6 states in relevant part that approval of an OCS exploration or development/production plan in the western Gulf of Mexico which does not require an environmental report from an operator pursuant except those proposing facilities: (1) In areas of high seismic risk or seismicity, relatively untested deepwater, or remote areas; or (2) within the boundary of a proposed or established marine sanctuary, and/or within or near the boundary of a proposed or established wildlife refuge or areas of high biological sensitivity; or (3) in areas of hazardous natural bottom conditions; or (4) utilizing new or unusual technology.

<sup>61</sup> Prior to the publication of the memorandum, CEQ requested comments from the public on how agencies were implementing the regulations promulgated by the Council in 1978. “The Council received 142 comments. Sixty-nine commenters represented business groups; forty represented state and local governments; fifteen represented environmental groups; thirteen represented federal agencies; and, five represented other interest groups or individuals.” Guidance Regarding NEPA Regulations, 48 Fed. Reg. 34,263 (July 28, 1983).

make decisions on a project-by-project basis with full consideration to the issues and impacts that are unique to a specific project. **The Council encourages the agencies to consider broadly defined criteria** which characterize types of actions that, based on the agency's experience, do not cause significant environmental effects. . . . [T]he Council strongly discourages procedures that would require the preparation of additional paperwork to document that an activity has been categorically excluded.<sup>62</sup>

In response to this CEQ guidance, agencies began to re-evaluate their categorical exclusions and broaden their use.<sup>63</sup> MMS's CE 15.4(C)(10), which was created in 1986, was likely broadened to include the central Gulf area in light of CEQ's recommendations.<sup>64</sup>

In February 2010, CEQ released Draft Guidance clarifying the use of categorical exclusions in light of CEQ finding there had been "an inappropriate reliance" on CEs by federal agencies.<sup>65</sup> The CEQ Draft Guidance clarifies how to establish a categorical exclusion, how to involve the public in creating CEs, how to apply CEs (including appropriate documentation), and how to conduct periodic review to ensure that CEs are being appropriately used.<sup>66</sup> Overall the Draft Guidance seems to be more favorable towards appropriate documentation and encourages public involvement beyond the minimum required by regulations. CEQ Draft Guidance explains that:

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<sup>62</sup> 48 Fed. Reg. at 34,265 (emphasis added).

<sup>63</sup> Kevin H. Moriarty, *Circumventing the National Environmental Policy Act: Agency Abuse of the Categorical Exclusion*, 79 N.Y.U. L. REV. 2312, 2325 (2004). Other agencies, including the Forest Service, expanded their use of categorical exclusions in the mid-1980s after the CEQ's 1983 guidance memorandum. See National Environmental Policy Act: Revised Implementing Procedures, 50 Fed. Reg. 26,078, 26,081 (June 24, 1985); *Id.* at 2315 ("In 1980, the Forest Service listed five categories of activities for which its rules required no environmental documentation. These categorical exclusions included changes to the internal organization of an agency, funding or scheduling of projects, routine maintenance of preexisting roads (unless herbicides were to be used), research, and emergencies. . . . By 1985, the Forest Service had promulgated rules that allowed it to conduct "small harvest cuts" without extensive documentation.").

<sup>64</sup> 51 Fed. Reg. 1,855 (Jan. 15, 1986). MMS had requested comments from the public on the revised NEPA procedures and received one comment from the Advisory Council on Historic Preservation. 50 Fed. Reg. 9,133 (Mar. 6, 1985). The draft version in 1985 states: "Approval of an offshore lease or unit exploration, development/production plan or a Development Operation Coordination Document in the central or western Gulf of Mexico (30 CFR 250.2) which does not require an environmental report from an operator pursuant to Item 3 of NTL 80-6." *Id.* The only change between the 1985 draft and the final (1986) version is a "non-substantive" edit that enumerates the specific criteria in Item 3 of Notice to Lessees (NTL) 80-6 rather than only reference it in the text of the regulation. *Id.*

<sup>65</sup> Memorandum from Nancy Sutley on Establishing and Applying Categorical Exclusions Under the National Environmental Policy Act to Heads of Federal Departments and Agencies 2 (Feb. 18, 2010), available at [http://ceq.hss.doe.gov/nepa/regs/Categorical\\_Exclusion\\_Draft\\_NEPA\\_Guidance\\_FINAL\\_02182010.pdf](http://ceq.hss.doe.gov/nepa/regs/Categorical_Exclusion_Draft_NEPA_Guidance_FINAL_02182010.pdf). In 2003 the NEPA Task Force completed their report to the CEQ. From 2003-2009 there was no movement on the Task Force's recommendation. "The task force recommends that CEQ issue guidance to clarify and promote consistent practices for the development, documentation, public review, approval, and use of categorical exclusions by Federal agencies." THE NEPA TASKFORCE, MODERNIZING NEPA IMPLEMENTATION 88 (2003), available at <http://ceq.hss.doe.gov/ntf/report/finalreport.pdf>.

<sup>66</sup> Memorandum from Nancy Sutley, *supra* note 60, at 2.

Using a categorical exclusion does not absolve Federal agencies from complying with the requirements of other laws, regulations, and policies (e.g., the Endangered Species Act or National Historic Preservation Act). Documentation may be necessary to comply with such requirements. When that is the case, all resource analyses and the results of any consultations or coordination should be included or incorporated by reference in the administrative record developed for the proposed action.<sup>67</sup>

This guidance is not found in the DOI manual generally, but the BLM NEPA Manual is in line with this guidance. It states, “When using [CEs], other procedural requirements may still apply: for example, tribal consultation, and consultation under the National Historic Preservation Act and the Endangered Species Act.”<sup>68</sup>

### **MMS’S USE OF CATEGORICAL EXCLUSIONS IN THE GULF OF MEXICO**

OCSLA specifically exempts operators in the Gulf of Mexico from the requirement to prepare a Development and Production Plan (DPP). In the place of Development and Production Plans for the Gulf, MMS requires DOCDs but exempts DOCDs from NEPA review through CE (C)(10).<sup>69</sup> MMS also applies CE (C)(10) to Exploration Plans. MMS’s published rationale for the NEPA exemption follows:

Some of the MMS categorical exclusions were developed based on experience in reviewing actions for compliance with the National Environmental Policy Act (NEPA) in the past. For example, hundreds of Environmental Assessments (EAs) were prepared for approval of certain types of oil and gas exploration and development and production plans in the Central and Western Gulf of Mexico. However, none of those EAs identified the need to prepare an Environmental Impact Statement (EIS). Therefore, a list of categorical exclusions was established for approval of those plans.<sup>70</sup>

With regard to the BP Exploration Plan, CEQ states that the regional office used MMS CE (C)(10) twice—for the Initial Exploration Plan<sup>71</sup> and then for the Revised Exploration Plan.<sup>72</sup>

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<sup>67</sup> *Id.* at 11.

<sup>68</sup> BUREAU OF LAND MANAGEMENT (BLM), H-1790-1, NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK 17 (2008), *available at* [http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information\\_Resources\\_Management/policy/blm\\_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf) [hereinafter BLM NEPA HANDBOOK].

<sup>69</sup> “In any area of the outer Continental Shelf, *other than the Gulf of Mexico*, a lease operator must submit a Development and Production Plan (DPP) and supporting materials for BOEM’s approval before it can begin production activity.” 43 U.S.C. § 1351(a)(1) (emphasis added).

<sup>70</sup> BOEM, *supra* note 54. Ironically, the presence of an increasing number of wells and exploration operations in a given geography may actually create the need for closer environmental review to address cumulative impacts.

<sup>71</sup> MMS Control Number: N-09349.

MMS conducted a CER for both types of Exploration Plans, but we have only been able to locate the CER for the Revised Exploration Plan (Appendix C).<sup>73</sup> This CER contains a page each on “archeological review,” “Chemosynthetic Communities Biological Review,” and “FO-LE NEPA Coordination Review.” It also contains two YES/NO checklists, one for each well, (with all the checks on “NO”) demonstrating that the site is not close to specified “proposed or established marine sanctuary” or “areas of high biological sensitivity.”<sup>74</sup> Lastly it contains some brief reviews on factors such as air quality, topography, artificial reef sites and hazards. In total the CER is 10 pages with minimal use of full sentences (complete expressions of findings). It is unclear how the questions and checkboxes used in the CER were first developed.

EPs and DPPs for other geographic regions, mainly the Pacific and Alaska regions, do not receive a CER and instead go through an environmental assessment process. The number of EPs and DPPs processed using categorical exclusion review in the Gulf of Mexico compared to other regions using environmental assessments is striking. For example, in Alaska, six projects are now in the exploration or development and production phases, and, beginning in 2007, there have been five environmental assessments for the exploration plans and one categorical exclusion review.<sup>75</sup> By comparison, from 2007 to May 19, 2010, there have been 733 CERs for EPs and 840 CERs for DOCDs in the Gulf of Mexico Region.<sup>76</sup>

Alaska’s regional office is not without criticism, however. In examining the EAs available, a pattern emerges of EAs incorporating the analysis of other project’s EAs in the environmental review. Each EA has a section entitled “Previous Applicable NEPA Analysis and Biological Opinions.” When discussing potential effects on birds, biological resources, and cumulative effects, the Camden Bay EA states, for instance, that the EA for Lease Sale 202 (Beaufort Sea,

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<sup>72</sup> MMS Control Number: R-04937; CEQ MMS REPORT, *supra* note 38, at 19 & n.54.

<sup>73</sup> CER, Revised Exploration Plan, R-04937 (2009), *available at* <http://www.washingtonpost.com/wp-srv/nation/documents/bp060210.pdf>. It is worth noting the bewildering lack of transparency in the Categorical Exclusion Review process generally and for the BP Macondo Well specifically. The agency does not make the CERs available for the public to view at its BP/Deepwater Horizon Oil Spill Reading Room (<http://www.boemre.gov/deepwaterreadingroom/>). This site states that it posts documents that have been “cleared for public release.” Deeper investigation led to finding one of the CERs on a *Washington Post* server. Other CERs for other OCS projects are similarly not accessible to the public on the BOEMRE website.

<sup>74</sup> *Id.*

<sup>75</sup> Four of the projects have Exploration Plans (one project has had two EAs), one project does not have any environmental review listed on its website, and the last went through a fairly thorough CER (when compared to the Gulf of Mexico Regional Office’s CER form. This suggests that each Regional Office has the discretion to create the CER how they see fit.). BOEM, Alaska Regional Office, Current Activities – Development/Exploration/Production Activities, <http://alaska.boemre.gov/cproject/cproject.htm> (last visited Oct. 17, 2010).

<sup>76</sup> BOEM, BP/Deepwater Horizon Oil Spill Documents: Response to FOIA Request from Congressman Rahall, ESO 00016814, MMS-NOLA-B1-00010-0001, *available at* <http://www.boemre.gov/deepwaterreadingroom/SelectRequest.aspx>. MMS’ FOIA response did not disclose the percent of EPs, DOCDs, and DPPs originating in the Gulf of Mexico that received CEs. This information may be discernable by using the cumbersome Public Information Query for PLANS database, *available at* <https://www.gomr.boemre.gov/WebStore/pimaster.asp?appid=3>.

where Camden Bay is located) is “incorporated by reference.”<sup>77</sup> It is not clear what parts of Lease Sale 202 EA are being incorporated. A later EA for the Chukchi Sea claims to summarize and incorporate by reference the Camden Bay EA – yet there is no further mention of the Camden Bay EA throughout the document.<sup>78</sup> It is unclear if the Chukchi Sea EA incorporates pieces of the Camden Bay EA (and the Beaufort Sea EA for that matter), or if this section of the EA is something that is replicated without considering if the NEPA documents are even being referenced.

On March 8, 2010, just six weeks before the BP Deepwater Horizon Oil Spill, the Government Accountability Office released a report detailing the shortfalls of the Alaska Regional Office’s implementation of NEPA.<sup>79</sup> GAO found that the Alaska Regional Office shared information related to NEPA analysis on a “need-to-know” basis “as determined by regional management” despite an MMS-wide memorandum instructing that all reports sent by industry should be sent to staff working on environmental analysis.<sup>80</sup> Instead of following the MMS memorandum, managers at the Alaska MMS office told GAO that they rely on “institutional knowledge,” yet the staff turnover was so high that more than half of the Environmental Assessment staff had been there for less than 1.5 years.<sup>81</sup> In response, in June 2010 the Regional Director of the Alaska Region for the Bureau of Ocean Energy Management, Regulation, and Enforcement, issued a directive to improve information sharing.<sup>82</sup>

### **MMS’S USE OF CATEGORICAL EXCLUSIONS WAS NOT APPROPRIATE IN DEEPWATER SITES**

The use of CE (C)(10) for deepwater sites contravenes the original intent of categorical exclusions and the original intent of NEPA. The original purpose of categorical exclusions was to exempt from environmental review “actions which do not individually or cumulatively have a significant effect on the human environment.”<sup>83</sup> Further, this CE, like all others in the MMS

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<sup>77</sup> MMS, OFFICE OF LEASING AND ENVIRONMENT, ALASKA OCS REGION, 2009-052, ENVIRONMENTAL ASSESSMENT OF SHELL OFFSHORE INC. 2010 OUTER CONTINENTAL SHELF LEASE EXPLORATION PLAN CAMDEN BAY, ALASKA 31, 35, 45,68 (2009), *available at* [http://alaska.boemre.gov/ref/EIS%20EA/mms2009\\_052\\_ea/2009\\_1015\\_EA.pdf](http://alaska.boemre.gov/ref/EIS%20EA/mms2009_052_ea/2009_1015_EA.pdf).

<sup>78</sup> MMS, OFFICE OF LEASING AND ENVIRONMENT, ALASKA OCS REGION, 2009-06, ENVIRONMENTAL ASSESSMENT OF SHELL GULF OF MEXICO, INC. 2010 EXPLORATION DRILLING PROGRAM: BURGER, CRACKERJACK, AND SW SHOEBILL PROSPECTS, CHUKCHI SEA OUTER CONTINENTAL SHELF, ALASKA 6 (2009), *available at* [http://alaska.boemre.gov/ref/EIS%20EA/2009\\_Chukchi\\_2010EA/2009\\_EA2010\\_Chukchi\\_EP.pdf](http://alaska.boemre.gov/ref/EIS%20EA/2009_Chukchi_2010EA/2009_EA2010_Chukchi_EP.pdf) [hereinafter CHUKCHI EA].

<sup>79</sup> GAO, GAO-10-276, OFFSHORE OIL AND GAS DEVELOPMENT: ADDITIONAL GUIDANCE WOULD HELP STRENGTHEN THE MINERALS MANAGEMENT SERVICE’S ASSESSMENT OF ENVIRONMENTAL IMPACTS IN THE NORTH ALEUTIAN BASIN (2010), *available at* <http://www.gao.gov/new.items/d10276.pdf> [hereinafter GAO MMS ALASKA REPORT].

<sup>80</sup> *Id.* at 24-25.

<sup>81</sup> *Id.* at 20-21.

<sup>82</sup> GAO, Offshore Oil and Gas Development: Additional Guidance Would Help Strengthen the Minerals Management Service’s Assessment of Environmental Impacts in the North Aleutian Basin: Recommendations for Executive Action, <http://www.gao.gov/products/GAO-10-276#recommendations> (last visited Oct. 17, 2010).

<sup>83</sup> 40 C.F.R. § 1508.4.

departmental manual, was created in 1986, well before technology allowed drilling miles underwater.

Even assuming CE (C)(10) is appropriate given NEPA's purpose, BP's Exploration Plan for the Macondo Well should have qualified for an "extraordinary circumstances" exception to a CER, thereby triggering an EA or EIS.<sup>84</sup> Several of the "extraordinary circumstances" exceptions should have applied in this case, including:

(b) Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas.

(d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.<sup>85</sup>

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<sup>84</sup> 43 C.F.R. § 46.215. During a CER, if certain "extraordinary circumstances" are present, more environmental review is required. Some of these extraordinary circumstances include having "significant impacts on public health or safety," "highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks," or "significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species."

<sup>85</sup> 43 C.F.R. § 46.215(b) & (d).

The Mississippi Canyon where the Macondo Well was located should qualify as an “ecologically significant” and “critical area” for several reasons. It is an area teeming with deep sea life including coral reefs, crabs, sperm whales, sharks and giant squid.<sup>86</sup> Scientific studies of the deep coral reefs located in the Mississippi Canyon demonstrate that the area serves as nursery habitat for megafauna such as catsharks.<sup>87</sup> A new species, *Ampelisca mississippiana*, was discovered in the Mississippi Canyon at 480m below sea level in 2007, which may have positive effects for the deep sea habitat by reducing the amount of silt in the deep water and thus facilitating settlement of certain fish larvae.<sup>88</sup> Further, the risks oil and gas exploration and development pose to these deep sea environments is highly “unknown.” Accordingly, this area should have qualified for the “extraordinary circumstances” exception and thorough environmental review should have been conducted.

Unfortunately, the CER for the Revised BP Exploration Plan does not explain why these “extraordinary circumstances” do not apply. In addition, BP’s Exploration Plan CER ignores the biological and geological complexity of the Mississippi Canyon.<sup>89</sup> The form of the Revised BP Exploration Plan’s CER essentially dictates its substantive reach. Therefore, if an environmental consideration does not appear on the checklist, it does not get addressed. It is unclear how often MMS updates the CER form, what criteria are used to determine whether an environmental factor warrants a checkbox, and the scope of other CERs from the Gulf region because these documents are inaccessible to the public.

#### **4. REVIEW OF CASE LAW AND CEQ/DOI REGULATIONS REGARDING THE TREATMENT OF “WORSE CASE SCENARIOS” WITHIN NEPA DOCUMENTS. DISCUSSION OF HOW MMS HANDLED WORSE CASE SCENARIOS IN THEIR NEPA DOCUMENTS.**

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<sup>86</sup> Joel Achenbach, *Oil Invades Sea Bottom's Dark World*, SEATTLE TIMES, May 16, 2010, available at [http://seattletimes.nwsource.com/html/nationworld/2011883193\\_oileco17.html](http://seattletimes.nwsource.com/html/nationworld/2011883193_oileco17.html).

<sup>87</sup> NOAA, Ocean Explorer 2003, <http://oceanexplorer.noaa.gov/explorations/03mex/logs/oct01/oct01.htm> (last visited Oct. 17, 2010).

<sup>88</sup> *Ampelisca mississippiana*, Encyclopedia of Life (2010), <http://www.eol.org/pages/4254012> (last visited Oct. 17, 2010); Yousria Soliman & Mary Wicksten, Abstract, *Ampelisca mississippiana: A New Species (Crustacea: Amphipoda: Gammaridea) from the Mississippi Canyon (Northern Gulf of Mexico)*, 1389 ZOOTAXA 45 (2007), available at <http://www.mapress.com/zootaxa/2007f/z01389p054f.pdf>.

<sup>89</sup> Julia Whitty, *The BP Cover-Up*, MOTHER JONES (Sept/Oct. 2010), available at <http://motherjones.com/environment/2010/09/bp-ocean-cover-up> (“The whales favor the deep waters of Mississippi Canyon—the location of the Deepwater Horizon wellhead. On numerous occasions, they've been seen swimming through thick oil in that region. And it's not only sperm whales. The Gulf is home to 29 species of cetaceans, many of which feed on the DSL, including spinner dolphins, spotted dolphins, pilot whales, killer whales, and many secretive deep divers such as beaked and bottlenose whales. The filter-feeding whales—including the Gulf's tiny isolated population of Bryde's whales, plus humpbacks, fins, minke, and sei, many of which are DSL feeders—are vulnerable a whole different way, since oil fouls their baleen (sieve-like teeth), dooming them to starvation.”).

In 1978, the Council on Environmental Quality (CEQ) enacted a regulation requiring federal agencies to include a “worst case analysis” in their EISs when there is incomplete or scientific uncertainty. This regulation stated in part:

When an agency is evaluating significant adverse effects on the human environment in an environmental impact statement and there are gaps in relevant information or scientific uncertainty, the agency shall always make clear that such information is lacking or that uncertainty exists.

...

b) If (1) the information relevant to adverse impacts is essential to a reasoned choice among alternatives and is not known and the overall costs of obtaining it are exorbitant or (2) the information relevant to adverse impacts is important to the decision and the means to obtain it are not known (e.g. the means for obtaining it are beyond the state of the art) the agency shall weigh the need for the action against the risk and severity of possible adverse impacts were the action to proceed in the face of uncertainty. **If the agency proceeds, it shall include a worst case analysis and an indication of the probability or improbability of its occurrence.**<sup>90</sup>

Federal agencies were reluctant to comply with this regulation.<sup>91</sup> A CEQ study in 1980 found that “EIS's rarely even address the requirement.”<sup>92</sup>

#### **CASE LAW ON “WORST CASE ANALYSIS” REGULATION**

The worst case analysis requirement posed a significant challenge for reviewing courts, which were forced to grapple with the meaning of the concept under NEPA’s “hard look” standard.<sup>93</sup> In one early case, for example, the court was forced to decide whether the Army Corps’ permit for a “superport” oil terminal for oil tankers in a wildlife estuary triggered the worst case analysis requirement.<sup>94</sup> The Sierra Club claimed that the Army Corps’ EIS should have included an analysis of a “total cargo loss by a supertanker in [Galveston] Bay.”<sup>95</sup> The district agreed with the Army Corps that such an analysis was not required under NEPA.<sup>96</sup> The Fifth Circuit

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<sup>90</sup> 43 Fed. Reg. 55,997 (Nov. 29, 1978) codified at 40 C.F.R. § 1502.22 (emphasis added), *repealed by* 51 Fed. Reg. 15,625 (April 25, 1986).

<sup>91</sup> Edward A. Fitzgerald, *The Rise and Fall of Worst Case Analysis*, 18 DAYTON L. REV. 1, 11 (1992).

<sup>92</sup> CEQ, TALKING POINTS ON CEQ'S OVERSIGHT OF AGENCY COMPLIANCE WITH NEPA REGULATIONS (1980) (quoted in Lawrence R. Liebesman, *The Council on Environmental Quality's Regulations to Implement the National Environmental Policy Act—Will They Further NEPA's Substantive Mandate?*, 10 ENVTL. L. REP. 50,039, 50,049 (1980)).

<sup>93</sup> Fitzgerald, *supra* note 91, at 11.

<sup>94</sup> *Sierra Club v. Sigler*, 695 F.2d 957, 961-62 (5th Cir. 1983).

<sup>95</sup> 695 F.2d at 969.

<sup>96</sup> *Sierra Club v. Sigler*, 532 F.Supp. 1222, 1233 (S.D. Tex. 1982).

reversed, holding that the EIS was inadequate because “the Sierra Club's catastrophic worst case is precisely what the CEQ intended” when it created the regulation.<sup>97</sup> The Court noted that the worst case analysis would not be a “purely conjectural exercise”<sup>98</sup> because speculation was minimal: “All parties agree that a total cargo loss *could* occur and *could* wreak catastrophic environmental damage in the Bay.”<sup>99</sup> There was also a “body of data with which a reasonable worst case analysis can be made that is not unreasonably speculative.”<sup>100</sup> Whether the court would have reached the same result in the absence of such factual information is unclear.

Following *Sigler*, a series of cases expanded the applicability and substance of the worst case analysis requirement. In *Southern Oregon Citizens Against Toxic Sprays, Inc. (SOCATS) v. Clark*, the Ninth Circuit held that a worst case analysis must be included in EAs as well as EISs.<sup>101</sup> In *Save Our Ecosystems v. Clark*, the same court found that the worst case analysis in an EA for an herbicide spraying project was “brief and cursory, and proceed[ed] from an entirely wrong assumption”<sup>102</sup> because it failed to evaluate available scientific evidence on the herbicide’s carcinogenicity.<sup>103</sup>

### **CEQ’S RESCISSION OF WORST CASE ANALYSIS**

In the deregulatory environment of the 1980’s, CEQ ultimately succeeded in eliminating the worst case analysis provision of the NEPA regulations, although not without controversy. In 1983, CEQ published draft guidance on worst case analysis for public comment.<sup>104</sup> The notice stated that the regulation “has been subject to a wide variety of conflicting interpretations by both federal agencies and reviewing courts”<sup>105</sup> and explained that CEQ was “concerned” that the regulation has been interpreted to require analysis “for potential effects that may well be highly remote or unlikely.”<sup>106</sup> CEQ noted that the requirement to conduct a worst case analysis “at

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<sup>97</sup> 695 F.2d at 972 & 975; *see* Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 46 Fed. Reg. 18,026, 18,032 (Mar. 23, 1981) (“NEPA requires that impact statements, at a minimum, contain information to alert the public and Congress to all known possible environmental consequences of agency action. Thus, one of the federal government's most important obligations is to present to the fullest extent possible the spectrum of consequences that may result from agency decisions and the details of their potential consequences for the human environment....In addition to an analysis of a low probability/catastrophic impact event, the worst case analysis should also include a spectrum of events of higher probability but less drastic impact.”).

<sup>98</sup> Fitzgerald, *supra* note 91, at 20.

<sup>99</sup> 695 F.2d at 974 (emphasis added).

<sup>100</sup> *Id.*

<sup>101</sup> 720 F.2d 1475, 1480-81 (9th Cir. 1984).

<sup>102</sup> 747 F.2d 1240 (9th Cir. 1984).

<sup>103</sup> *Save Our Ecosystems*, 747 F.2d at 1246.

<sup>104</sup> 48 Fed. Reg. 36,486 (Aug. 11, 1983).

<sup>105</sup> *Id.* at 36,486.

<sup>106</sup> *Id.* at 36,487.

bottom is nothing more than the duty to provide information essential to a reasoned choice among alternatives.”<sup>107</sup> CEQ thus proposed to include an “initial threshold of probability,” meaning a requirement that the impact be “reasonable foreseeability,” before worst case analysis would be triggered.<sup>108</sup> Commentators severely criticized these proposed guidelines, arguing that they effectively gutted the worst case analysis requirement and contradicted earlier guidance requiring analysis of low probability/catastrophic impact events.<sup>109</sup> In response, CEQ withdrew the proposed guidance<sup>110</sup> and solicited comments on a proposed rulemaking to revise the worst case analysis regulation.<sup>111</sup>

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<sup>107</sup> *Id.*

<sup>108</sup> *Id.*

<sup>109</sup> Fitzgerald, *supra* note 91, at 42; *see also* 46 Fed. Reg. at 18,032.

<sup>110</sup> 49 Fed.Reg. 4,803 (Feb. 8, 1984).

<sup>111</sup> 49 Fed.Reg. at 50,744.

In 1985, CEQ proposed to eliminate the worse case analysis requirement entirely because the “requirement is an unsatisfactory approach to the analysis of potential consequences in the face of missing information.”<sup>112</sup> The agency criticized the requirement on three grounds.<sup>113</sup> First, worse case analysis entailed “limitless” inquiry since “one can always conjure up a worse “worst case” by adding an additional variable to a hypothetical scenario.”<sup>114</sup> Second, risk analysis experts stated that worst case analysis “lacks defensible rationale or procedures” and has no “discernable link” to disciplines addressing uncertainty.<sup>115</sup> Third, worst case analysis was “counterproductive” because agencies had to spend “substantial time and resources” on “conjectural analysis,” such as that required in *Save Our Ecosystems*, which was not considered useful to decision makers.<sup>116</sup>

In 1986, the CEQ promulgated a new regulation for handling scientific uncertainty that eliminated worst case analysis.<sup>117</sup> The new regulation, which still exists today, provides that where information is incomplete or unavailable, the EIS must include:

(4) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, “reasonably foreseeable” includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.<sup>118</sup>

Unlike the former worst case analysis requirement, the new regulation only applies to EISs.<sup>119</sup> EAs do not need to go through an analysis of “impacts which have catastrophic consequences, even if their probability of occurrence is low.”<sup>120</sup>

The U.S. Supreme Court subsequently interpreted CEQ’s abandonment of the “worst case analysis” language to mean that prior case law giving some teeth to the phrase is no longer

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<sup>112</sup> 50 Fed. Reg. 32,234, 32237 (Aug. 9, 1985); *see also* Fitzgerald, *supra* note 91, at 43.

<sup>113</sup> Fitzgerald, *supra* note 91, at 43.

<sup>114</sup> 50 Fed. Reg. at 32,236.

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> 51 Fed.Reg. 15,618 (Apr. 25, 1986).

<sup>118</sup> 40 C.F.R. § 1502.22(b)(4).

<sup>119</sup> 51 Fed. Reg. at 15,619.

<sup>120</sup> 40 C.F.R. § 1502.22(b)(4).

applicable.<sup>121</sup> This interpretation has allowed agencies to dispense with the kind of probabilistic evaluation required by earlier cases in favor of a more generalized impact description.<sup>122</sup>

#### **MMS'S HANDLING OF WORST CASE ANALYSIS IN NEPA DOCUMENTS**

Unfortunately we have not been able to obtain MMS' environmental reviews, such as EISs from the early 1980s, when the worst case analysis requirement was in place.<sup>123</sup> As a proxy, we can examine how courts have treated environmental review documents that came before them. Even before the requirement was abandoned, however, MMS appears to have skirted any real "worst case analysis" in its NEPA documents, and the courts have generally sanctioned that approach.

In *North Slope Borough v. Andrus*, for example, the D.C. Circuit affirmed the district court's conclusion that the worst case analysis in the EIS was a "reasonable means of alerting the decision maker to the dangers presented by proceeding in the face of uncertainty."<sup>124</sup> Plaintiffs challenged a lease sale EIS for the Beaufort Sea in Alaska.<sup>125</sup> They argued that the worst case analysis was inadequate and misleading because it discussed only the potential impacts of the project on Bowhead and Gray whales, and not other species in the area, and because the risk to these endangered whales was underestimated.<sup>126</sup> The district court found, however, that the EIS analysis contained "a reasonable estimation of the most severe consequences that can be expected based upon certain assumptions."<sup>127</sup> The D.C. Circuit affirmed, noting that the lease sale stage "presents a record of facts and doubts that have not yet fully matured"<sup>128</sup> because the drilling of even an exploration well was at least two years away. In so holding, the Court assumed that the EIS required for the development and production stage of an OCS project would contain a more detailed worst case analysis appropriate for that stage of the "multistage approach mandated by Congress for this kind of oil and gas development."<sup>129</sup> In hindsight, we know that MMS's tiering practices generally belie this assumption.

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<sup>121</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355 (1989) ("The Court of Appeals recognized that the "worst case analysis" regulation has been superseded, yet held that "[t]his rescission ... does not nullify the requirement ... since the regulation was merely a codification of prior NEPA case law." 833 F.2d, at 817, n. 11. This conclusion, however, is erroneous in a number of respects. Most notably, review of NEPA case law reveals that the regulation, in fact, was not a codification of prior judicial decisions.").

<sup>122</sup> Oliver A. Houck, *Worst Case and the Deepwater Horizon Blowout: There Ought to Be a Law*, 40 ENVTL. L. REP. 11033 (forthcoming Nov. 2010).

<sup>123</sup> For instance, the BOEMRE website has no hits on the phrase "worst case analysis" and Stanford University's library does not have Final EISs by MMS from the early 1980s available. We would encourage the Commission to obtain EISs from the early 1980s to obtain a greater understanding of what worst case analysis looked like in this form.

<sup>124</sup> 642 F.2d 589, 605 (D.C. Cir. 1980) (internal quotations omitted).

<sup>125</sup> 642 F.2d at 593.

<sup>126</sup> *North Slope Borough v. Andrus*, 486 F.Supp. 332, 346 (D. D.C. 1980).

<sup>127</sup> *Id.* at 347.

<sup>128</sup> 642 F.2d at 605.

<sup>129</sup> *Id.* at 606.

In *Village of False Pass v. Clark*, the Ninth Circuit similarly weakened worst case analysis review at the lease sale stage.<sup>130</sup> The Final EIS of an offshore lease sale contained an analysis of the impacts of a 1,000- and 10,000-barrel oil spill, but the Village argued that the FEIS also should have contained a worst case analysis of the impacts of 100,000- barrel spill.<sup>131</sup> The Ninth Circuit held that the “Secretary [of Interior] took the required ‘hard look’ under NEPA . . . without including a worst case analysis of a 100,000 barrel oil spill.”<sup>132</sup> Similar to the D.C. Circuit in *North Slope Boroughs*, the Ninth Circuit gave significant weight to the notion that a larger spill scenario could be considered at a later stage.<sup>133</sup>

A failure to consider at the lease sale stage a worst case analysis of an oil spill of 100,000 barrels does not foreclose consideration of such an analysis at later stages, and does not foreclose disapproval of lessee activity at those stages based on that analysis.<sup>134</sup>

For this reason, the Court was able to distinguish the earlier “worst case analysis” decision in the *Sigler* case. In *Sigler*, the approval of construction permits was the “last opportunity for the government to act responsibly on a worst case analysis of a major oil spill,” whereas in *Village* there were subsequent stages of the OCS process (exploration stage, development and production stage) where a worst case analysis could be conducted.<sup>135</sup>

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<sup>130</sup> 733 F.2d 605 (9th Cir. 1984).

<sup>131</sup> *Id.* at 607.

<sup>132</sup> *Id.* at 617.

<sup>133</sup> *Id.* at 614.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.* at 614.

## 5. RECOMMENDATIONS

### THE BREAKDOWN OF THE ENVIRONMENTAL REVIEW PROCESS IS SYSTEMIC – THE SOLUTIONS MUST BE AS WELL

The breakdown of the environmental review process for OCS activities is systemic. Eliminating categorical exclusions or reintroducing worst case analysis, while perhaps helpful, will not create the widespread change that is needed. We briefly highlight the points in the OCS environmental review process that, addressed in full, could create the meaningful change necessary.

#### Leasing Stage

Arguably the most critical stage in the OCS process is the lease sale stage, where development rights are conveyed. In NEPA parlance, the lease sale constitutes the “go/no go” point of irretrievable commitment. Once a lease is sold, development rights attach, constitutional takings claims loom large, and regulators face increased pressure to approve the exploration and, ultimately, development plans. Before leases are awarded, therefore, BOEM should prepare a full EIS that thoroughly examines the biology and geomorphology of an area to determine if drilling is even appropriate in that location. Accordingly, environmental review conducted at the leasing stage must be more thorough than MMS’s Multi-Sale EIS.<sup>136</sup>

The Multi-Sale EIS, which included Lease 206, covered 136,562.5 square miles, or an area greater than the fifth largest state, New Mexico.<sup>137</sup> Meaningful and nuanced environmental review simply cannot happen at this large scale. **We recommend a new regulation limiting the maximum size of a leasing area and mandating the preparation of an EIS for each leasing area**, rather than bundling the environmental review into a single Multi-Sale EIS. Moreover, **the size of leasing areas should be dictated by what science tells us** about the appropriate scale of environmental review. If we carve leasing decisions into more manageable pieces, the NEPA document that accompanies the leasing decision can serve as a first level review against which later environmental evaluations can be properly tiered. Without such regulatory reform, tiering is unlikely to be appropriate.

Further, individual lease sales, such as Lease Sale 206, should be reviewed with an EIS, not an EA. The EA for Lease Sale 206 covered 29.8 million acres, an area bigger than the state of Pennsylvania.<sup>138</sup> By comparison, the Office of Surface Mining, another agency within DOI, requires the use of EISs for surface mining operations in areas of “1280 acres or more.”<sup>139</sup> If an activity on an area of land over 23,000 times smaller than that of Lease Sale 206 must be analyzed through an EIS, lease sales for OCS activities certainly should as well. Using an EIS

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<sup>136</sup> MULTI-SALE EIS, *supra* note 35.

<sup>137</sup> *Id.* at 2-4, 2-5.

<sup>138</sup> MMS, Miscellaneous Presale Statistics for Lease 206 (Mar. 19, 2008), *available at* <http://www.gomr.boemre.gov/homepg/lseale/206/pstat206.pdf>.

<sup>139</sup> DEPARTMENT OF INTERIOR, 516 DM 13, DEPARTMENTAL MANUAL-MANAGING THE NEPA PROCESS-OFFICE OF SURFACE MINING 13.4(A)(4)(b) (2004), *available at* [http://elips.doi.gov/app\\_dm/act\\_getfiles.cfm?relnum=3623](http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3623).

for an individual lease sale is in line with common practice at other sister agencies, such as BLM.<sup>140</sup> Accordingly, **BOEM should calibrate EIS preparation thresholds, including the size of the area to be reviewed, to comparable thresholds used by its sister agencies and bureaus within DOI.**

#### Exploration Plan Stage

OCSLA's requirement that BOEM make a decision on an EP "within thirty days of its submission"<sup>141</sup> creates a timing problem for environmental review that can be overcome through legislative or regulatory reform. MMS claims that this short statutory deadline justifies its use of CERs for most of the EPs in the Gulf of Mexico.<sup>142</sup> Meaningful environmental review of the EP, including assembling relevant scientific data of the specific well locations and consulting with expert agencies on the biological dynamics of the area, simply cannot happen in thirty days. **Amending OCSLA to eliminate or at least extend this thirty-day deadline would help to address this problem.**

**Another way to address this problem is for BOEM to adjust its own practices in determining when an exploration plan is deemed "submitted."**<sup>143</sup> With regard to land development, nearly all permit processing deadlines, including environmental review deadlines, hinge on when the lead agency deems a development application "complete". Jurisdictions/lead agencies that take regulations and environmental review seriously make sure that all permit application documents and plans are completed and meet all policy and regulatory requirements before deeming the application "submitted" or "complete" because they know that once that determination is made, the permit processing time clock starts. While OCSLA states no deadline for deeming an EP "submitted," OCSLA regulations state that the Regional Supervisor has fifteen days from receipt of an EP to determine whether the document meets the legal criteria for deeming an EP "submitted."<sup>144</sup> The three substantive requirements to qualify as "submitted" are:

- (1) "The submitted information, including the information that must accompany the EP (refer to the list in § 250.212), fulfills requirements and is sufficiently accurate"
- (2) the operator has "provided all needed additional information (see § 250.201(b))"
- (3) the operator has provided the required number of copies.

This regulation could be amended to also require input and information from expert agencies or the public through a notice and comment period before deeming an EP "submitted." Creating new requirements before deeming an EP "submitted" would allow for adequate time to collect

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<sup>140</sup> See, e.g., BLM NEPA HANDBOOK, *supra* note 68, at 70.

<sup>141</sup> 43 U.S.C. § 1340(c)(1); see also 30 C.F.R. § 250.233(b).

<sup>142</sup> Hearing on Deepwater Horizon: Oil Spill Prevention and Response Measures, and Natural Resource Impacts Before the H. Comm. on Transportation and Infrastructure, 111th Cong. (May 19, 2010) (oral testimony of former MMS Director S. Elizabeth Birnbaum), *available at* [http://www.youtube.com/watch?v=IYRIfMP6bcM&feature=player\\_embedded](http://www.youtube.com/watch?v=IYRIfMP6bcM&feature=player_embedded).

<sup>143</sup> 30 C.F.R. § 250.231(a).

<sup>144</sup> § 250.231(a).

meaningful data on the location of the drilling before having to make a determination on the EP. **Further, the regulation should require the submission of information on biological, physical, and socioeconomic resources, oil and hazardous substance spills plans, and mitigation measures.**<sup>145</sup> The BP Exploration Plan for Mississippi Canyon Block 252 addressed these requirements, usually in one page for each topic.<sup>146</sup> We question how substantively rigorous this analysis is. Strengthening these requirements could help generate a more meaningful environmental review process. For instance, the regulations could be amended to require such documents as certifications from expert engineering consultants that the drilling company is using the best available technology and assessments from biologists or marine scientists that the proposed well is not located near sensitive habitat.

The regulation on “additional information” referenced in the second requirement states: “On a case-by-case basis, the Regional Supervisor may require you to submit additional information if the Regional Supervisor determines that it is necessary to evaluate your proposed plan or document.”<sup>147</sup> **Another way to strengthen the environmental review for the EP is to require the Regional Supervisor of the Gulf of Mexico and Alaska regions to require additional information from experts in the biology of the location where the applicant seeks to drill.**

In short, BOEM should interpret the OCSLA regulations to improve the environmental review process for EPs by adjusting when an EP should be deemed “submitted” to better reflect the agency’s need to consider environmental impacts at this stage. **This practice, in turn, would allow BOEM to conduct only EAs at the exploration stage rather than CERs.**<sup>148</sup>

#### Development Stage

“In any area of the outer Continental Shelf, *other than the Gulf of Mexico*” a lease operator must submit a Development and Production Plan (DPP) and supporting materials for BOEM’s approval before it can begin production activity.<sup>149</sup> In the Gulf of Mexico’s Western and Central Planning Areas, lease operators submit Development Operations Coordination Documents (DOCDs) instead of DPPs.<sup>150</sup> According to BOEM, a DOCD is the functional equivalent of a

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<sup>145</sup> § 250.212.

<sup>146</sup> BP EXPLORATION AND PRODUCTION, INC., OCS-G 32306, INITIAL EXPLORATION PLAN, MISSISSIPPI BLOCK 252 2-1 – 13-2 (2009), available at <http://www.gomr.boemre.gov/PI/PDFImages/PLANS/29/29977.pdf>.

<sup>147</sup> 30 C.F.R. § 250.201(b).

<sup>148</sup> Even now, when EAs are conducted for activities in Alaska, there is no public comment on the EAs. Public comment for the EAs, while not required under NEPA, does occur in other agencies such as the Forest Service, National Park Service, and BLM. This is because the regulations for those particular agencies are stricter than the DOI NEPA regulations and require public comment on EAs.

<sup>149</sup> 43 U.S.C. § 1351(a)(1) (emphasis added); 30 C.F.R. § 250.204. Several types of information must accompany the DPP including hydrogen sulfide information, air emissions information, and oil and hazardous substance spills information. These materials must also come with the documentation for leases in the Gulf of Mexico. § 250.242. No oil and gas leasing is allowed in the Eastern Planning Area.

<sup>150</sup> 30 C.F.R. § 250.200-203.

DPP,<sup>151</sup> but by law, DPPs and DOCDs are subject to different levels of NEPA review. OCSLA requires BOEM to “declare the approval of a development and production plan in any area or region [of the OCS], *other than the Gulf of Mexico*, to be a major Federal action.”<sup>152</sup> The DOI Departmental Manual explicitly excludes development and production actions in the Gulf of Mexico from the class of “Major Actions Normally Requiring an EIS.”<sup>153</sup>

As with exploration plans, BOEM has historically invoked CE 15.4 (C)(10) which allows a DOCD in the Central or Western Gulf of Mexico to bypass all environmental review.<sup>154</sup> **The use of a CE for DOCDs or DPPs should be eliminated, and regulations should be amended to require Environmental Assessments at this stage.**

#### *Improve the Scientific Rigor in EISs and EAs*

In addition to simply creating a credible opportunity for understanding whether significant environmental impacts may occur, it is important that the substance of EISs and EAs are scientifically rigorous. Other agencies within DOI publish detailed, yet user-friendly guidelines on EISs and EAs. **BOEM should adopt similar guidelines tailored to OCS oil and gas exploration and development.** BLM, for instance, uses “external scoping” for EISs and EAs. “External scoping involves notification and opportunities for feedback from other agencies, organizations, tribes, local governments, and the public.”<sup>155</sup> External scoping is beneficial because it “serves to build agency credibility and promote constructive dialogue and relations with tribes, agencies, local governments and the public.”<sup>156</sup> While at BLM external scoping is optional for EAs, BLM acknowledges that the benefits of external scoping for EAs are the same for EISs.<sup>157</sup> We recommend that BOEM adopt the use of external scoping for all Environmental Assessments in the future. The use of “best available science to support NEPA analysis” is also encouraged in the BLM Handbook.<sup>158</sup> Particular weight is placed on peer-reviewed science that supports NEPA analysis. **Practices such as external scoping and using best available science have been institutionalized in other DOI agencies, and we encourage BOEM to do the same.**

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<sup>151</sup> BOEM, Overview of OCS Regulations, <http://www.gomr.mms.gov/homepg/regulate/regs/laws/postsale.html> (last visited Oct. 17, 2010). In a Notice to Lessees after the BP Deepwater Horizon Spill, MMS similarly stated that the regulations impose the same requirement for a DPP and a DOCD. DOI - BOEM, National Notice to Lessees and operators of Federal Oil and Gas Leases, Outer Continental Shelf (OCS), NTL No. 2010-N06 (June 18, 2010), available at <http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2010NTLs/10-n06.pdf>.

<sup>152</sup> 43 U.S.C. § 1351(e)(1) (emphasis added).

<sup>153</sup> DOI DEPARTMENTAL MANUAL-MMS, *supra* note **Error! Bookmark not defined.**, at (A)(1).

<sup>154</sup> *Id.* at C(10).

<sup>155</sup> BLM NEPA HANDBOOK, *supra* note 68, at 39.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.* at 78.

<sup>158</sup> *Id.* at 55.

Adopt Public Involvement Standards Common with Other DOI Agencies and Bureaus

The EAs that MMS created for certain lease sales in the Gulf of Mexico and for exploration plans in Alaska are issued with a FONSI without any public comment period.<sup>159</sup> MMS defended this practice because OCSLA allows MMS only 30 days to conduct environmental review after an exploration plan is deemed “submitted.”<sup>160</sup> Neither NEPA nor CEQ regulations explicitly require public comment for EAs. Accordingly, courts have held that agencies are not required to circulate a draft EA to the public in every case.<sup>161</sup> However, some agencies do submit EAs to public comment. In fact, the CEQ regulations direct agencies to encourage and facilitate public involvement in the NEPA process to the fullest extent possible.<sup>162</sup> Other agencies within DOI encourage the use of public comment for EAs even though public comment is not required by law.<sup>163</sup> This is a critical measure of transparency that “improve[s] the quality of the analysis” by giving the document a “hard look.”<sup>164</sup> **We recommend BOEM incorporate public comment into EAs conducted.**

**A BOEM NEPA HANDBOOK IS NECESSARY AND REQUIRED**

**BOEM should develop and publish a NEPA handbook to guide staff’s implementation of NEPA and to clarify how BOEM staff members are expected to carry out NEPA’s mandates.** DOI’s NEPA implementing regulations make reference to “bureau handbooks to assist field offices,”<sup>165</sup> and the DOI’s Departmental Manual states that bureaus, such as MMS/BOEM “shall . . . [p]repare handbooks providing guidance on the interpretation of NEPA.”<sup>166</sup> Yet MMS/BOEM has never produced such a NEPA handbook.<sup>167</sup> The value of such a handbook has already been reported by the GAO.<sup>168</sup> The GAO in March 2010 noted that

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<sup>159</sup> See CHUKCHI EA, *supra* note 78, issued December 2009 and MMS, OFFICE OF LEASING AND ENVIRONMENT, ALASKA OCS REGION, FINDING OF NO SIGNIFICANT IMPACT FOR 2010 EXPLORATION DRILLING PROGRAM, *available at* [http://alaska.boemre.gov/ref/EIS%20EA/2009\\_Chukchi\\_2010EA/fonsi.pdf](http://alaska.boemre.gov/ref/EIS%20EA/2009_Chukchi_2010EA/fonsi.pdf) issued December 7, 2009.

<sup>160</sup> 43 U.S.C. § 1340(c)(1); *see also* 30 C.F.R. § 250.233(b).

<sup>161</sup> Bering Strait Citizens for Responsible Resource Development v. U.S. Army Corps of Engineers, 524 F.3d 938, 951-52 (9th Cir. 2008); Alliance To Protect Nantucket Sound, Inc. v. U.S. Dept. of Army, 398 F.3d 105, 114-115 (1st Cir. 2005); Pogliani v. U.S. Army Corps of Eng’rs, 306 F.3d 1235, 1240 (2d Cir. 2002); Fund for Animals, Inc. v. Rice, 85 F.3d 535, 548 (11th Cir.1996).

<sup>162</sup> 40 C.F.R. § 1500.2(d); 40 C.F.R. § 1506.6.

<sup>163</sup> BLM NEPA HANDBOOK, *supra* note 68, at 23-24.

<sup>164</sup> A “hard look” is a reasoned analysis containing quantitative or detailed qualitative information. *Id.* at 55.

<sup>165</sup> 73 Fed. Reg. 61,292, 61,313 (Oct. 15, 2008).

<sup>166</sup> DEPARTMENT OF INTERIOR, 516 DM 3, DEPARTMENTAL MANUAL-MANAGING THE NEPA PROCESS-OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE 3.4(A)(1) (2009), *available at* [http://elips.doi.gov/app\\_dm/act\\_getfiles.cfm?relnum=3848](http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3848).

<sup>167</sup> Agencies that have are BLM and Fish and Wildlife Service.

<sup>168</sup> GAO MMS ALASKA REPORT, *supra* note 74, at 20.

providing “detailed instructions that could lead an analyst through the process of drafting an environmental assessment or environmental impact statement” or “key factors for staff to consider in analyzing environmental impacts, such as the significance of the environmental effects of proposed actions, the region’s cultural and environmental sensitivities, or procedures to be followed during management reviews of NEPA analyses” would be valuable to MMS staff.<sup>169</sup> A NEPA handbook is particularly useful when there is high turnover in staff, like that experienced from 2003-2008 at the Alaska Regional Office.<sup>170</sup> MMS staff interviewed by GAO who had worked in agencies with agency-specific NEPA handbooks said that having a NEPA handbook “clarified ambiguity and offered step-by-step guidance.”<sup>171</sup> Within their NEPA handbook, BOEM should develop a desk guide for Cooperating Agency Relationships similar to BLM’s.<sup>172</sup>

### **THE USE OF CATEGORICAL EXCLUSIONS MUST RETURN TO THEIR ORIGINAL PURPOSE**

MMS’s use of categorical exclusions before the BP Deepwater Horizon Oil Spill departed from the original intent of NEPA and categorical exclusions in particular. BOEM’s use of CEs should be brought back to their original purpose—to exempt from environmental review “actions which do not individually or cumulatively have a significant effect on the human environment.”<sup>173</sup> DOI’s categorical exclusion regulations provide examples of situations where CEs are appropriate, such as for personnel, financial and legal activities.<sup>174</sup> In contrast, the bureau-specific CEs are more problematic, and have evolved to include activities that “have significant effect on the human environment.” **MMS/BOEM’s CE 15.4(C)(10) is a prime example and should be eliminated to end the practice of using categorical exclusions to exempt EPs, DOCs and DPPs from meaningful environmental review.**

Further, broad use of CEs and CERs for OCS activities must end, and BOEM must be held accountable by the public to conduct sound environmental reviews. One way to facilitate meaningful environmental review is to amend the regulations to require that bureau-specific CEs be written as regulations and codified rather than buried in the departmental manual. Elevating bureau-specific CEs to regulation status should raise the level of care with which agency staff applies CEs. **Moreover, all CEs and CERs should be documented in writing and posted for public viewing on BOEM’s website to encourage transparency and accountability to the public.**

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<sup>169</sup> *Id.*

<sup>170</sup> *Id.* at 21.

<sup>171</sup> *Id.*

<sup>172</sup> See BLM NEPA HANDBOOK, *supra* note 68, at 111.

<sup>173</sup> 40 C.F.R. § 1508.4.

<sup>174</sup> 43 C.F.R. § 46.210.

### **A REVISED FORM OF WORST CASE ANALYSIS WOULD BE VALUABLE**

The flaw with worst case analysis in the 1980s was that the regulation did not define the phrase “worst case analysis”, and courts, which lacked expertise in worst case analysis, were left to define the contours of this analysis. The absence of a definition facilitated confusing case law that broadened worst case analysis to a point that political reactions forced CEQ to abandon requirements for such analysis.<sup>175</sup> Promulgating a regulation that defines the term as well as the requirements of such an analysis after a robust public comment period would likely help reduce confusion. **A pragmatic, yet scientifically defensible approach to worst case analysis is both possible and appropriate given the increasingly complex technological and human systems used for OCS activities.**

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<sup>175</sup> Save Our Ecosystems v. Clark, 747 F.2d 1240, 1246 (9th Cir. 1984).

## Appendix A: Comparison between the Programmatic EIS, Multi-Sale EIS, and Lease Sale 206 EA for the term “Bluefin”

### Programmatic EIS

Many of these species such as **bluefin tuna** and swordfish spawn in the eastern Gulf of Mexico in relation to the Loop Current boundary (MMS, 1999) (Fig. III-4). All of the epipelagic species are migratory, but specific patterns are not well understood. Many of the oceanic species associate with flotsam, which provides forage areas and/or nursery refuges.<sup>176</sup>

### Multi-Sale EIS

Plankton samples are taken at stations arranged in a systematic grid across the GOM. An annual larval index for the Atlantic **bluefin tuna** is generated each year from the spring survey and is used by the International Commission for the Conservation of Atlantic Bluefin Tunas to estimate stock size.<sup>177</sup>

The occurrence of **bluefin tuna** larvae in the GOM associated with the Loop Current boundary and the Mississippi River discharge plume is evidence that these species spawn in the GOM (Richards et al., 1989). Block et al (2001) also reported on the GOM being used as a breeding ground and demonstrated trans-Atlantic migrations of bluefin tuna between the eastern Mediterranean, Atlantic and GOM using electronic data storage tags.<sup>178</sup>

Tuna (Scombridae), billfish (Istiophoridae), swordfish (Xiphiidae), and sharks (Squaliformes) are under the direct management of NOAA Fisheries Service and are not included as Fishery Management Council managed species. The EFH areas for these highly migratory species (HMS) are described in separate FMP’s, including the FMP for Atlantic tunas, swordfish, and sharks (USDOC, NOAA Fisheries Service, 1999a) and the Atlantic billfish FMP Amendment 1 (USDOC, NOAA Fisheries Service, 1999b). These separately managed species include albacore tuna (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*), **bluefin tuna** (*Thunnus thynnus*), skipjack tuna (*Euthynnus pelamis*), yellowfin tuna (*Thunnus albacares*), swordfish (*Xiphias gladius*), a suite of 32 shark species (Squaliformes), and billfish (Istiophoridae) species including the blue marlin (*Makaira nigricans*), white marlin (*Tetrapturus albidus*), sailfish *Istiophorus platypterus*, and longbill spearfish (*Tetrapturus pfluegeri*).<sup>179</sup>

As described by NOAA Fisheries Service documents (USDOC, NOAA Fisheries Service, 1999a and b), the current status of the scientific knowledge of these species is such that habitat preferences are largely unknown or are difficult to determine. Some new information is emerging, such as the remarkable transoceanic migrations of **bluefin tuna** as described by Block et al. (2001) and others. Several tuna species, particularly the yellowfin, appear to exhibit strong

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<sup>176</sup> PROGRAMMATIC EIS, *supra* note 34, at III-35.

<sup>177</sup> MULTI-SALE EIS, *supra* note 35, at 3-68.

<sup>178</sup> *Id.* at 3-74.

<sup>179</sup> *Id.* at 3-78.

attraction behavior to offshore deepwater oil and gas structures (Edwards and Sulak, 2003; Edwards et al., 2002).<sup>180</sup>

### **Lease Sale 206 EA**

No matches found

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<sup>180</sup> *Id.* at 3-78.

## **Appendix B: Comparison of Programmatic EIS, Multi-Sale EIS, Lease Sale 206 EA for the concept of impacts of oil spills on Gulf Sturgeon**

### **Programmatic EIS**

Effects of oil spills would depend on the location, timing, and volume of the spill, in addition to other environmental factors. Small spills are unlikely to affect a large number of fish or EFH before dilution and weathering would reduce concentrations of toxic fractions to sublethal or nonlethal levels and would, therefore, not have substantial effects on fish populations. It is anticipated that any single large spill in offshore waters would affect only a small proportion of a given fish population (including the Gulf sturgeon) and that fish resources would not be permanently affected. A large spill that reaches submerged seagrass beds or coastal wetlands could have more persistent impacts on EFH and could require remediation. Few impacts would be expected because of the wide dispersal of early life history stages of most fishes in the surface waters of the Gulf of Mexico.<sup>181</sup>

### *Accidents*<sup>182</sup>

It is assumed that up to 9 large spills greater than or equal to 1,000 bbl could occur in Gulf of Mexico planning areas as a result of the proposed action (4 pipeline spills, 4 platform spills, and 1 tanker spill) as identified in Table IV-4. The scenario developed for the analysis of the proposed action assumes that approximately 25 percent of activities, and consequently the potential for spills, occurs in waters less than 200-m in depth. Thus, under the proposed action, it is estimated that as many as 3 relatively large spills could occur in shallow-water areas: a platform spill (1,500 bbl) and 1-2 pipeline spills (4,600 bbl). Because platforms are typically located in water deeper than that utilized by Gulf sturgeon, pipeline spills are the only accidents in the scenario likely to affect Gulf sturgeon, and only pipeline spills in the Central Gulf of Mexico Planning Areas are relevant because this is the only area in the 2007-2012 program where Gulf sturgeon occur.

Hydrocarbons from spilled oil can affect adult sturgeon by direct contact with gills or via direct ingestion. Toxic fractions of PAH's in spilled oil can cause death or illness in adult fishes, but exposure to these fractions must be continuous. Adult and juvenile fishes would likely avoid a large oil spill; however, the demersal eggs and riverborne larvae of Gulf Sturgeon would be unable to avoid spilled oil. Eggs and larvae of fishes would die or become deformed if exposed to certain toxic fractions of spilled oil (Longwell, 1977; Carls and Rice, 1990; Collier et al., 1996; Kingsford, 1996). The Gulf sturgeon deposits demersal eggs (which hatch in about 1 week) in freshwater reaches of the major rivers from eastern Louisiana to Florida, usually in deep areas or holes with current flow (Figure 3-7). Floating oil is not likely to penetrate to the middle reaches of most rivers where eggs are deposited because it would float on the freshwater outflow and never reach or settle directly on demersal eggs (Sulak and Clugston, 1998; Fox et al., 2000). Because significant levels of spilled oil are unlikely to reach areas where eggs and larvae of Gulf sturgeon would occur, accidents related to exploration, development, or production activities should not have any impact on these life stages.

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<sup>181</sup> PROGRAMMATIC EIS, *supra* note 34, at II-10.

<sup>182</sup> *Id.* at IV-63.

### *Environmental Impacts of the Cumulative Case*<sup>183</sup>

Oil spills in the Gulf of Mexico have the greatest potential to impact Gulf sturgeon populations. Western Gulf of Mexico Planning Area spills are less likely to reach estuarine and shelf habitat of the adult sturgeon. Under the cumulative scenario, approximately 2,500 small spills, 200 intermediate-sized spills, and 45 larger spills are assumed to occur in the Central Planning Area (Table IV-17), although most of these spills would be limited to deeper areas of the Central Planning Area where Gulf sturgeon are less likely to be present (67 FR 39106-39199). Spills in shallow areas have the greatest potential to affect Gulf sturgeon. As identified in Section IV.B.2.f(1), eggs and larvae of Gulf sturgeon are typically located in freshwater areas, and oil from OCS-related spills are unlikely to come into contact with these life stages. Because adult sturgeons are benthic feeders, they are relatively unlikely to come into contact with surface oil.

### **Multi-Sale EIS**

#### *Analysis of Spill Risk to Gulf Sturgeon*<sup>184</sup>

In 1996, Gulf sturgeon occurred from the Mississippi River to Charlotte Harbor in western Florida (Patrick, personal communication, 1996). Figure 4-19 shows this habitat. The juvenile and subadult Gulf sturgeon, at a minimum, seasonally use the nearshore coastal waters and could potentially be at risk from both coastal and offshore spills.

#### *Risk from Offshore Spills $\geq 1,000$ bbl*

Figure 4-19 provides the results of the analysis of the risk of a spill  $\geq 1,000$  bbl occurring offshore as a result of a proposed action and reaching the known locations of the Gulf sturgeon within 10 days after the spill event. The likelihood of a spill  $\geq 1,000$  bbl occurring within the WPA area and reaching locations used by the Gulf sturgeon within 10 days after the spill incident is  $<0.5$  percent. There is a 6-9 percent chance that a spill  $\geq 1,000$  bbl would occur as a result of a proposed action in the CPA and reach coastal waters where the Gulf sturgeon has been found within 10 days. The risk of exposure of Gulf sturgeon to such a spill would be dependent upon the species abundance and density as well as the size and persistence of the slick.

#### *Risk from All Offshore Spills*

About 400-21,000 bbl of oil are estimated to be spilled in offshore waters over a 40-year period from the estimated 800-1,500 spill events as a result of a proposed action in the WPA, and about 5,500-26,500 bbl of oil are estimated to be spilled in offshore waters from the estimated 2,700-4,500 spills as a result of a proposed action in the CPA; most (about 97%) of these spills would be  $\leq 1$  bbl. These volumes include volumes from 1-2 spills incident in the size group  $\geq 1,000$  bbl and one spill incident in the size group  $\geq 10,000$  bbl. While  $<1$  spill is estimated for some sizes of spills (Table 4-35), there is always a finite chance of any size spill occurring. Therefore, the possibility of at least one spill of each size is included in the upper spill volume estimates. For spills  $<1,000$  bbl, only those  $>50$  bbl would be expected to have a chance of persisting as a cohesive slick long enough for the slick to reach coastal waters. Few offshore spills 50-1,000 bbl

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<sup>183</sup> *Id.* at IV-385.

<sup>184</sup> MULTI-SALE EIS, *supra* note 35, at 4-246 – 247.

are estimated to occur as a result of a proposed action, and few of these slicks are expected to occur proximate to State waters. Should a slick from such a spill reach coastal waters, the volume of oil remaining in the slick is expected to be small.

#### *Risk from Coastal Spills*

As discussed in Chapter 4.1.2.1.1 very few of the estimated 46-102 coastal spills resulting from a proposed action in the CPA are likely to occur east of the Mississippi River due to the reduced number of shore bases and oil pipeline landfalls. No coastal spills are projected to occur in Mississippi, Alabama, or Florida coastal waters as a result of a proposed action in the CPA. The risk analysis assumes coastal spills to occur where oil production is brought to shore. Figure 4-33 shows major oil pipeline landfall areas. It is projected that the majority of oil production for a CPA proposed action will be brought to shore in eastern Louisiana, from Atchafalaya Bay to east of the Mississippi River. Based on this assumption the majority of coastal spills are projected to occur in this area, including one spill  $\geq 1,000$  bbl (assumed size, 3,000 bbl) estimated to occur as the result of a CPA proposed action. For further information on projected coastal spill estimations, see Chapter 4.3.1.7.1.

#### *4.4.9. Impacts on Endangered and Threatened Fish*<sup>185</sup>

##### *4.4.9.1. Gulf Sturgeon*

Gulf sturgeon critical habitat in the Gulf extends from Lake Borgne in Louisiana to the Suwannee Sound in Florida (Chapter 3.2.7.1). Although this is not the full range of occurrence of Gulf sturgeon, these areas constitute the most crucial habitat for the conservation of the Gulf sturgeon. The potential for impact to critical habitat or Gulf sturgeon by spilled oil is one of the greatest concerns for this resource.

Oil spills are the OCS-related factor associated with a proposed action most likely to impact the Gulf sturgeon. Oil can affect Gulf sturgeon by direct ingestion, ingestion of oiled prey, or the absorption of dissolved petroleum products through the gills. Upon any exposure to spilled oil, liver enzymes of adult fish oxidize soluble hydrocarbons into compounds that are easily excreted in the urine (Spies et al., 1982). Contact with or ingestion/absorption of spilled oil by adult Gulf sturgeon could result in mortality or sublethal physiological impacts including irritation of gill epithelium and disturbance of liver function. Behavior studies of other fish species suggest that adult sturgeon are likely to actively avoid an oil spill, thereby limiting the effects and lessening the extent of damage (Baker et al., 1991; Malins et al., 1982).

Fish eggs and larvae, with their limited physiology and mobility, are killed when contacted by oil (Longwell, 1977). Gulf sturgeon generally spend at least six months of the year in riverine and estuarine habitats inland from coastal waters and beaches. Spawning takes place when eggs are deposited in inland waters, and young Gulf sturgeon are believed to remain upstream for perhaps their first two years. The probability of spilled oil encroachment into an inland waterway is less than for the adjoining coastal area, and diminishes even further as one moves upstream. Spilled oil is very unlikely to impact adult and juvenile Gulf sturgeon and eggs when they are in the inland, riverine portion of their life cycle. The juvenile and subadult Gulf sturgeon, at a

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<sup>185</sup> *Id.* at 4-288-4-290.

minimum, seasonally use the nearshore coastal waters and could potentially be at risk from both coastal and offshore spills.

Because of the floating nature of oil and the small tidal range in the coastal Gulf, oil spills alone would typically have very little impact on benthic feeders such as the Gulf sturgeon. Unusually low tidal events, increased wave energy, or the use of oil dispersants increases the risk of impact with bottomfeeding and/or bottom-dwelling fauna. For this reason, dispersants are not expected to be used with coastal spills. Dispersants would likely be used for offshore spills and are expected to disperse about 65 percent of the volume of a spill (Chapter 4.3.5). Winds and currents will also diminish the volume of a slick. For the Louisiana waters and beaches with a higher probability of oil-spill occurrence than the surrounding areas, the Mississippi River outflow would also serve to help break up a slick that might otherwise contact the area. Spreading of the slick would reduce the oil concentrations that might impact the coastal Gulf sturgeon critical habitat.

The potential risk to sturgeon would result from either direct contact with oil spills (or the potential PAH's introduced through the spill) or, in some cases, long-term exposure to produced water. The likelihood of Gulf sturgeon impacts in coastal waters as a result of OCS activity is reduced by both the distance from a potential spill or production area and the concentration of contaminants that actually reach the area of sturgeon activity.

The PAH toxicity to fish in general varies substantially, although impacts of PAH's on fish are often generalized due to the difficulty in testing any specific chemical. In areas of PAH contamination, fish may produce the means to allow for faster removal rates of PAH's from their system; however, this often transforms the PAH into a more harmful metabolite (O'Conner and Huggett 1988). Fish exposed to PAH-contaminated sediments have experienced a range of affects including mortality, liver lesions, reproductive problems, fin erosion, skin carcinomas, and gill issues (Malins et al., 1985; O'Conner and Huggett, 1988; Fabacher et al., 1991; Varanasi et al., 1992; Baumann et al., 1996). There is also speculation that exposure to PAH's may suppress the immune system. However, PAH studies involving Gulf sturgeon do not exist, although Gulf sturgeon tissue samples were found to contain concentrations of PAH's (Batemann and Brim, 1994). Recent research has documented the occurrence of endocrine disruption in sturgeons from various chemical contaminants, and PAH contamination has resulted in endocrine and reproductive disruption in some salmonids (Matthiesson and Sumpter, 1998). Except for direct pipeline spills in the nearshore environment, the Gulf sturgeon would be at greater risk of a PAH encounter during the inland river migrations due to the industrial and farm waste introduced into these coastal rivers from the adjacent agricultural and urban land uses. The produced waters associated with OCS activities have various chemical constituents that have varying potential for concern to the Gulf sturgeon. The components consist of metals, trace elements, monocyclic aromatic hydrocarbons (MAH's), PAH's, and various organic chemicals. Since the Gulf sturgeon spends most of its time either in nearshore coastal environments or in inland rivers, the potential for encountering produced-water impacts or direct spills from a production platform is small. Produced water creates a localized area of effect close to the discharge and is mostly limited to benthic sediments in the immediate vicinity of the discharge. In the OCS activities, produced waters provide the main source of metals (i.e., arsenic, barium, cadmium, chromium, copper, lead, and zinc). Mercury is only found occasionally in

produced waters. All of these metals are natural constituents of clean seawater. Barium, chromium, copper, iron, nickel, and zinc are frequently found in produced water in higher concentrations than those naturally found in seawater. The complex geochemistry of these metals affects their ability to produce adverse effects in the marine environment. Most of these metals are used as trace nutrients by marine organisms and, therefore, metal concentrations in the tissue make it difficult to determine bioaccumulation in these organisms. As a rule, concentrations of metals in tissues of marine organisms in the GOM and in the immediate vicinity of offshore discharges of produced water are in the normal range and do not show any evidence of bioaccumulation to potentially toxic levels for the organisms themselves or their consumers, including man (Neff, 1997). This study noted that produced water from the typical GOM produced water found only copper and cadmium, two metals typically in GOM produced water.

Any adverse effects of these metals, if they occur at all, are likely to be highly localized. The MAH's are found in produced water; however, because of their high volatility, they are lost rapidly in the seawater following discharge. Most of these volatile compounds are immediately diluted to background levels within 100 m (328 ft) of the discharge. The compounds have a low potential to be bioaccumulated by marine organisms and do not adsorb to sediments. Therefore, they pose a very low risk of harm to marine organisms and human consumers of seafood. The PAH's have a low to moderate risk to marine organisms or human consumers of fishery products. The PAH's do have a tendency to bioaccumulate and are often found in sediments near produced-water discharges. Although some of the PAH's do have a tendency bioaccumulate, those particular constituents are in such low concentrations in the produced water they are considered to be low risk to marine ecosystems in the vicinity of the produced-water discharges. The major source of the more damaging PAH compounds are found as a component of soot from various combustion sources. The PAH's associated with soot are not accumulated efficiently from the food sources and are biodegraded rapidly in the tissues of most marine animals; therefore, they do not biomagnify in the marine food web and do not pose a hazard to fish that consume biofouling organisms from submerged platform structures.

#### *Proposed Action Analysis*

Figure 4-19 shows the area analyzed for oil spills. The critical habitat is encompassed in this slightly larger area of Gulf sturgeon occurrence. The probability of an offshore oil spill  $\geq 1,000$  bbl occurring and contacting the area of known Gulf sturgeon locations is given as 6-9 percent for a CPA proposed action. The probability for a WPA proposed action is listed as very negligible, less than 0.5 percent, as the critical habitat and sturgeon occurrence are east of the Mississippi River. The probability of an oil spill occurring and contacting eastern Louisiana offshore waters is 6-9 percent for a CPA proposed action, but in Mississippi offshore waters this probability to 1 percent for a CPA proposed action. As shown on Figure 4-15, probabilities further decrease eastward. The risk of exposure of Gulf sturgeon to such a spill would be dependent on the species abundance and density, as well as the size and persistence of the slick. In total, about 400-21,000 bbl of oil are estimated to be spilled in offshore waters over a 40-year period from the estimated 800-1,500 spill events as a result of a proposed action in the WPA, and about 5,500-26,500 bbl of oil are estimated to be spilled in the offshore waters from the estimated 2,700-4,500 spills as a result of a proposed action in the CPA. Most (about 97%) of

these spills would be  $\leq 1$  bbl. These volumes include volumes from 1-2 spill incidents in the  $\geq 1,000$  bbl size group and one spill in the  $\geq 10,000$  bbl size group. For spills  $< 1,000$  bbl, only those  $> 50$  bbl would be expected to have a chance of persisting as a cohesive slick long enough for the slick to reach coastal waters. Few offshore spills 50-1,000 bbl are estimated to occur as a result of a proposed action, and a few of these slicks are expected to occur proximate to State waters. Should a slick from such a spill reach coastal waters, the volume of oil remaining in the slick is expected to be small.

The coastal waters inhabited by Gulf sturgeon and comprising the critical habitat are not expected to be at risk from coastal spills resulting from a proposed action. Considering the projected use of shore bases in support of activities resulting from a proposed action (Chapter 4.1.2.1.1), very few of the estimated 46-102 coastal spills resulting from a proposed action in the CPA are likely to occur east of the Mississippi River. No coastal spills are projected to occur in Mississippi, Alabama, or Florida coastal waters as a result of a proposed action in the CPA. Several factors influence the probability of spilled oil contact with Gulf sturgeon or their critical habitat:

- The anadromous migrations and the spawning and lengthy habitations of inshore, riverine areas greatly diminishes the probability of spilled oil contact with Gulf sturgeon.
- The floating nature of oil and the lack of large tidal ranges, as well as the influence of the Mississippi River outflow to help disperse slicks, diminishes the probability of significant impact of spilled oil on Gulf sturgeon or critical habitat.
- The very low probability of a large offshore oil spill contacting Gulf sturgeon critical habitat in all but the very westernmost area diminishes potential impact to Gulf sturgeon or alteration of critical habitat.
- The extremely low probability of a coastal spill impacting east of the Mississippi River, and thus the designated critical habitat, diminishes the probability of oil impacts to critical habitat.

### *Summary and Conclusion*

The Gulf sturgeon could be impacted by oil spills resulting from a proposed action. Contact with spilled oil could have detrimental physiological effects. The juvenile and subadult Gulf sturgeon, at a minimum, seasonally use the nearshore coastal waters and could potentially be at risk from both coastal and offshore spills. However, several factors influence the probability of spilled oil contact with Gulf sturgeon or their critical habitat. The likelihood of spill occurrence and subsequent contact with, or impact to, Gulf sturgeon and/or designated critical habitat is extremely low.

## **Lease Sale 206 EA**

### *4.2.9.1. Gulf Sturgeon*<sup>186</sup>

The description of the biology, life history, and distribution of Gulf sturgeon can be found in Chapter 3.2.7.1 of the Multisale EIS. A detailed impact analysis of the routine, accidental, and cumulative impacts of proposed Lease Sale 206 on Gulf sturgeon can be found in Chapters

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<sup>186</sup> MMS, MMS 2007-059, PROPOSED GULF OF MEXICO OCS OIL AND GAS LEASE SALE 206, CENTRAL PLANNING AREA, ENVIRONMENTAL ASSESSMENT 45-46 (2007), available at <http://www.gomr.mms.gov/PDFs/2007/2007-059.pdf>.

4.2.2.1.9.1, 4.4.9.1, and 4.5.9.1 of the Multisale EIS, respectively. The following information is a summary of the impact analysis incorporated from the Multisale EIS.

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The Gulf sturgeon could be impacted by oil spills resulting from proposed Lease Sale 206. Contact with spilled oil could have detrimental physiological effects. The juvenile and subadult Gulf sturgeon, at a minimum, seasonally use the nearshore coastal waters and could potentially be at risk from both coastal and offshore spills. However, several factors influence the probability of spilled oil contact with Gulf sturgeon or their critical habitat. The likelihood of spill occurrence and subsequent contact with, or impact to, Gulf sturgeon and/or designated critical habitat is extremely low.

The Gulf sturgeon and its critical habitat can be cumulatively impacted by activities such as oil spills, alteration and destruction of habitat, and commercial fishing. The effects from contact with spilled oil will be sublethal and last for less than one month. Substantial damage to Gulf sturgeon critical habitat is expected from inshore alteration activities and natural catastrophes. As a result, it is expected that the Gulf sturgeon will experience a decline in population sizes and a displacement from their current distribution that will last more than one generation. Deaths of adult sturgeon are expected to occur from commercial fishing. The incremental contribution of proposed Lease Sale 206 to the cumulative impact is negligible because the effect of contact between sale-specific oil spills and Gulf sturgeon is expected to be sublethal and last less than one month.

A search was conducted for new information published since completion of the Multisale EIS. A search of Internet information sources as well as interviews with personnel from State and Federal resource agencies was conducted to determine the availability of recent information. Various Internet sources were examined to determine any recent information regarding Gulf sturgeon (Florida Fish and Wildlife Commission, 2007; USDOJ, FWS, 2007b and 2007c). No new information was discovered from these information sources.

State and Federal resource agencies were contacted and interviews conducted to investigate any recent published or unpublished data that may be available. Current information indicates that there may have been some displacement of sturgeon or possibly damage to their habitat in localized areas where the storm forces were strongest. The current sampling programs along the Gulf Coast indicate (at least anecdotally) that sturgeon are returning to the areas they occupied prior to Hurricane Katrina, which may indicate somewhat of a recovery of those areas (Paruka, personal communication, 2007). No changes in migratory patterns or blockages of migratory pathways have been noted. In general, the researchers noted that the sturgeon are normally found approximately 0.5 mi (0.8 km) from shore between the shoreline and the barrier islands with the bulk of the fish located in the CPA between Petit Bois, Dauphin, and Chandeleur Islands and from Perdido to Panama City as far as Fort Walton Beach (Slack, personal communication, 2007; Paruka, personal communication, 2007).

At present, NOAA indicates no changes in critical habitat have occurred, and they are working to develop an estimate of sturgeon habitat loss and a habitat suitability index for the species (Bolden, personal communication, 2007). They also have no data indicating that sturgeon are

utilizing the deeper Gulf waters. In general, the mud substrates found in the Gulf waters do not support the appropriate benthic food source for Gulf sturgeon.

The MMS has consulted with NMFS for the proposed lease sales in the WPA and CPA of the GOM in the 2007-2012 OCS Leasing Program, including Lease Sale 206. The NMFS BO, signed on June 29, 2007, concludes that the proposed lease sales, including Lease Sale 206, and associated activities are not likely to jeopardize the continued existence of threatened and endangered species under NMFS jurisdiction or destroy or adversely modify designated critical habitat.

The MMS has reexamined the analysis for the Gulf sturgeon presented in the Multisale EIS, based on the additional information presented above. No new significant information was discovered that would alter the impact conclusion for the Gulf sturgeon presented in the Multisale EIS; therefore, a new analysis of the potential impacts of proposed Lease Sale 206 on the Gulf sturgeon is not required. The analysis and potential impacts detailed in the Multisale EIS still apply for proposed Lease Sale 206.