

Commentary – Holly Reuter and David Contrada¹

Deepwater Horizon: Lessons for NEPA Practitioners

The recent oil spill in the Gulf of Mexico provides an opportunity for National Environmental Policy Act (“NEPA”) practitioners to reflect on the challenges of implementing NEPA in an environment of rapid technological advancement. While technology often leads to a more efficient use of resources, it also presents new challenges from unknown or uncertain environmental risks. This article will discuss the White House Council on Environmental Quality’s (CEQ) review of the Minerals Management Service’s (MMS) NEPA policies, practices and procedures to interpret what other agencies can expect in the face of evolving technology, activities and programs.

Background

The Deepwater Horizon drilling rig, operated by British Petroleum, exploded in the Gulf of Mexico (BP Spill) in April 2010. The explosion fractured the Macondo oil well, resulting in the largest oil spill in U.S. waters to date.² MMS oversaw the oil and gas development and leasing activities on the Outer Continental Shelf, including the NEPA analyses applicable to Deepwater Horizon and the Macondo oil well.³ Following the BP spill, the Department of Interior reorganized MMS into three separate entities: the Bureau of Ocean Energy Management, Regulation (BOEMRE), the Office of Natural Resources Revenue and the Bureau of Safety and Environmental Enforcement.⁴ BOEMRE assumed responsibility for the development and leasing of oil and gas activities on the Outer Continental Shelf.⁵

CEQ released a report analyzing the environmental policies, practices and procedures MMS used to issue leases for Deepwater Horizon and the Macondo well (MMS Report) in August 2010. The MMS Report summarizes the leasing process used for Deepwater Horizon and explained MMS’ analyses that ultimately led to a categorical exclusion of the British Petroleum exploration plan from further NEPA review.⁶ CEQ’s report does not comment on the adequacy of MMS’ NEPA analyses. Instead, CEQ identifies seven recommendations in the MMS Report for BOEMRE to strengthen its NEPA analyses:

1. Perform careful and comprehensive NEPA review of individual deepwater exploration, operation, development, production and decommissioning activities, including site-specific information where appropriate.

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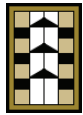
² Curry L. Hagerty & Jonathan L. Ramseur, U.S. Cong. Research Serv., *Deepwater Horizon Oil Spill: Selected Issues for Congress* (R41262; June 18, 2010).

³ Council on Envtl. Quality, *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*, 1 (August 16, 2010) (hereinafter “MMS Report”).

⁴ U.S. Dep’t of Interior, *Implementation Report: Reorganization of the Minerals Management Service*, 2 (July 14, 2010).

⁵ *Id.*

⁶ MMS Report at 11-12.



2. Track and take into account all mitigation commitments made in NEPA and decision documents that are relied upon in determining the significance of environmental impacts, from the initial Programmatic EIS through site-specific NEPA analyses and decisions.
3. Ensure that NEPA analyses fully inform and align with substantive decisions at all relevant decision points; that subsequent analyses accurately reflect and carry forward relevant underlying data; and that those analyses will be fully available to the public.
4. Ensure that NEPA documents provide decision-makers with a robust analysis of reasonably foreseeable impacts, including an analysis of reasonably foreseeable impacts associated with low probability catastrophic spills for oil and gas activities on the Outer Continental Shelf.
5. Review the use of categorical exclusions for Outer Continental Shelf oil and gas exploration and development in light of the increasing levels of complexity and risk—and the consequent potential environmental impacts—associated with deepwater drilling. Determine whether to revise these categorical exclusions.
6. Continue to seek amendments to the Outer Continental Shelf Lands Act to eliminate the 30-day decisional timeframe for approval of submitted Exploration Plans.
7. Consider supplementing existing NEPA practices, procedures and analyses to reflect changed assumptions and environmental conditions, due to circumstances surrounding the BP Oil Spill.⁷

Discussion

The following discussion focuses on three of CEQ's recommendations to explain how NEPA practitioners can adapt to changing technology, activities and programs. Applicants for federal licenses, for example, may seek approval to use new technology in their activities. Alternatively, license holders may use new technology to carry out activities under existing licenses. Agencies frequently change the scope of their programs and actions. The NEPA practitioner must decide which changes require a reevaluation of potential impacts from existing activities and weigh the unknown risks of new technology.

I. Ensure that NEPA documents provide decision-makers with a robust analysis of reasonably foreseeable impacts, including an analysis of reasonably foreseeable impacts associated with low probability catastrophic spills for oil and gas activities on the Outer Continental Shelf.

MMS prepared the environmental analyses applicable to Deepwater Horizon and the Macondo well between 2000 and 2008.⁸ At that time, MMS determined an oil spill of the magnitude of the BP spill was not reasonably foreseeable based in part on historic spill rates.⁹ This was one of the factors that led MMS to categorically exclude the British Petroleum exploration plan from further NEPA review. Subsequently, the public outcry surrounding the BP spill changed the conversation on how to view the scope of reasonably foreseeable impacts in 2010.¹⁰ BOEMRE will need to analyze potential impacts of low probability, catastrophic spills moving forward.¹¹ Two questions arise from this recommendation: 1) Do

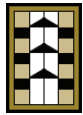
⁷ *Id.* at 4-5.

⁸ *Id.* at 13-14.

⁹ *Id.* at 27.

¹⁰ The public outcry created Congressional interest and led to the CEQ review of MMS' NEPA procedures.

¹¹ MMS Report at 4.



other agencies have to analyze the potential impacts of high risk, low probability events; and 2) Is there a difference between high risk, low probability events and worst-case scenarios?

CEQ did not object to MMS' use of historic information as an indicator of what is reasonably foreseeable in the MMS Report. Therefore, agencies may continue to rely on historic information with the understanding that a catastrophic event could change the balance of what is reasonably foreseeable for their activities. Changes in technology, activities and programs may also increase the likelihood of a catastrophic event.

The distinction between a high risk, low probability event and a worst-case scenario is ambiguous. Although a catastrophe like the BP spill sounds like a worst-case scenario, as MMS discovered, catastrophes can have far less of an impact than a worst-case scenario. A high risk, low probability event is one in which the potentially adverse impacts of an action are large, but impacts are unlikely to occur. A worst-case scenario assumes the largest amount of adverse impacts possible occurs, regardless of probability. A high risk, low probability event may not approach the level of a worst-case scenario. For example, the BP spill was a high risk, low probability event. British Petroleum predicted operations at the *Deepwater Horizon* site could result in a worst-case spill of 162,000 barrels per day.¹² While experts debate the quantity of barrels spilled, all estimates indicate the BP spill was well below the worst-case scenario.¹³ The BP spill demonstrates the need to fully understand the potential for any type of catastrophic event to occur.

NEPA practitioners should focus on gathering accurate information and data trends from their activities and not worry about the distinction between high risk, low probability events and worst-case scenarios. CEQ removed the requirement to analyze worst-case scenarios in 1986.¹⁴ Now, agencies just need to rely on current information to determine if a high probability, low impact event is reasonably foreseeable. Until there is reason to suspect an impact is reasonably foreseeable, agencies do not have to analyze it.¹⁵

Agencies should view CEQ's recommendation to BOEMRE as specific advice reflecting the current technology and risks associated with deepwater drilling as is now evident by the BP spill. If an agency has a new program or activity, or uses a new technology, it should track the impacts so it can have a basis for saying whether a high risk, low probability event is or is not reasonably foreseeable. This data will be useful to explain the agency's actions in subsequent environmental analyses as well as enable the agency to save resources by limiting its analyses to potential impacts.

II. Review the use of categorical exclusions for Outer Continental Shelf oil and gas exploration and development in light of the increasing levels of complexity and risk—and the consequent potential environmental impacts—associated with deepwater drilling. Determine whether to revise these categorical exclusions.

As wells move further offshore with new and innovative technology, the complexity and risk of potential impacts from deepwater drilling similarly increases.¹⁶ As a result, BOEMRE should review and possibly modify its environmental analyses for offshore drilling.¹⁷ The pivotal factors for BOEMRE's assessment

¹² *Id.* at 19.

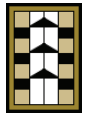
¹³ The official estimate is 5,000 barrels a day, and higher estimates range from 35,000 to 60,000 barrels per day.

¹⁴ MMS Report at 27.

¹⁵ CEQ consistently asks agencies to utilize the information available to them in order to minimize the burden on agencies. For example, *see generally*, Council on Env'tl. Quality, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (February 18, 2010).

¹⁶ MMS Report at 30.

¹⁷ *Id.* at 31.



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of complexity and risk appear to be technological advancement and changes in the scope and type of its activities. Other agencies will have to develop methods to address changes in complexity and risk from their own activities.

Proper documentation of the impacts of agency actions will address changes in the complexity and risk of an agency's activities. Agencies must document their experience in performing an activity to justify a categorical exclusion.¹⁸ If an agency uses a new technology or begins a new type of activity, the agency has to build an administrative record to show there are no impacts before it can categorically exclude the activity from further NEPA review. Despite the need for it, however, few agencies have established a system to effectively manage administrative records. Agencies typically have a system to collect the necessary information to produce the administrative record, but the information is not stored in an accessible and user-friendly format. An agency could design a document system to reduce inappropriate uses of categorical exclusions by storing the underlying rationale for each categorical exclusion in the system. A system designed for administrative records also could expedite the inclusion of new technology and activities onto a categorical exclusion list when sufficient data is collected to demonstrate there are no potential impacts.

Agencies should make the basis of environmental analyses transparent. For example, suppose an agency adopts a new technology to make one research activity more efficient. Using the old technology, the agency conducted its research activity for twenty years with no environmental impacts. About ten years ago, the agency developed a categorical exclusion for the research activity based on its experience and documentation that the research activity had no potential to impact the human environment. One of the reasons there were no impacts was the use of the old technology, but that information is not easily located or known by the current agency staff conducting the research activity. Now the agency engages in the same research activity with the new technology in place. The new technology uses a volatile compound that is significantly more risky than the old technology. Since the agency staff has no way to know of or look for the basis of the categorical exclusion, they continue to apply the categorical exclusion based on the old technology to the research activity. A shift in the agencies' activities occurred that changed the underlying assumptions on which the agency based its environmental analysis. Transparent decision-making and documentation would have alerted agency staff to the need to reexamine the environmental analyses. The public also could have alerted the agency to potential issues if the agency had shared its decision-making processes and had provided information about its environmental analyses to the public.

Agencies should also develop guidance for their programs about what constitutes a change in complexity or risk. Changes in technology are an obvious way in which the risk and complexity of an action may change. However, changes in the size and scope of an activity are likely to be more common and difficult to track. For MMS, one alteration that was a factor in the BP spill was moving further offshore to deepwater drilling. Other agencies will have to understand the parameters of their own activities to recognize when an alteration occurs. Program guidance will be helpful because these activities are likely program and project-specific.

III. Consider supplementing existing NEPA practices, procedures and analyses to reflect changed assumptions and environmental conditions, due to circumstances surrounding the BP Oil Spill.

The BP spill created a "changed circumstance" for MMS by making catastrophic spills reasonably foreseeable on the Outer Continental Shelf.¹⁹ In light of the significance of the BP spill, BOEMRE will

¹⁸ Council on Env'tl. Quality, *Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act*, 6 (November 23, 2010).

¹⁹ MMS Report at 32.



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need to review its prior analyses of deepwater drilling activities on the Outer Continental Shelf and consider supplementing its analyses.²⁰

Although underutilized, supplemental impact analyses can be a very useful method for accounting for changes in technology, scope, or types of activities. A supplemental analysis allows an agency to adjust existing analyses in light of new information or a changed circumstance, such as the BP spill.²¹ Agencies can use a supplemental analysis to adapt an existing NEPA analysis to current technology, programs and activities. For this reason, supplemental analyses save agencies resources that otherwise would be spent on conducting entirely new analyses.

Conclusion

The MMS Report provides insights for agencies struggling to implement NEPA for new or altered activities, programs and technology. Agencies should consider if their own policies, practices and procedures are structured to withstand these changes. If not, agencies can strengthen their own environmental analyses by adapting CEQ's recommendations. If an agency tracks and documents the use and impacts of its activities and makes documentation transparent to both the public and throughout the agency, it will be prepared to adapt to changes as they arise. Agencies do not have to consider improbable disasters in their environmental analyses, but must use the available data to determine reasonably foreseeable impacts. When a change occurs, or when new information becomes available, the agency can use a supplemental analysis to remain compliant with NEPA.

²⁰ *Id.* at 33-34.

²¹ *Id.* at 34.